

**U.S. ARMY RESERVE  
88th READINESS DIVISION**

# **INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN**

**For Sites in  
Colorado, Kansas, Montana, Nebraska,  
North Dakota, South Dakota, Utah, and  
Wyoming  
USFWS Interior Regions 5/7  
(Legacy Region 6)**



**2021-2025**

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# INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN

## 88th Readiness Division Installation Management Command - Army Reserve

### ENDORSEMENT

This Integrated Natural Resources Management Plan (INRMP) has been prepared in accordance with regulations, standards, and procedures of the Department of Defense (DoD) and the U.S. Army Reserve (USAR) in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming Departments of Natural Resources. The signatures below indicate the mutual agreement of the parties concerning the conservation, protection, and management of the fish and wildlife resources presented in the Plan.

This INRMP meets the requirements of the Sikes Act (16 U.S. Code [USC] 670a *et seq.*) as amended.

#### Approving Officials:

Darrell J. Guthrie  
Major General, USA  
Commanding

\_\_\_\_\_  
20 December 2021

Date

LEWIS.JAMES.MATTHEW.1099982949  
82949

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Date: 2021.12.06 07:23:09 -06'00'

James M. Lewis  
COL, EN  
Regional Engineer Officer

\_\_\_\_\_  
6 December 2021

Date

Director Dan Prenzlou

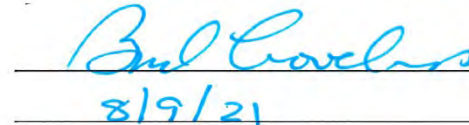
Colorado Parks and Wildlife  
Denver, Colorado

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8-26-21

Date

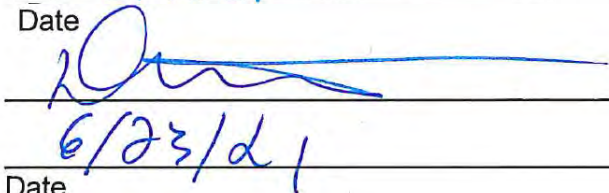
Secretary Brad Loveless

Kansas Department of Wildlife and Parks  
Topeka, Kansas

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8/9/21

Date

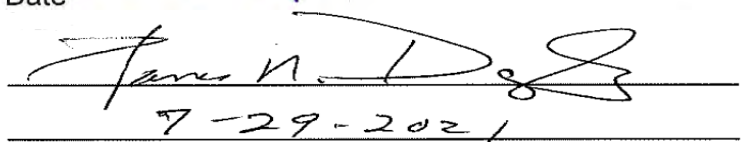
Deputy Director Dustin Temple for  
Director Hank Worsch  
Montana Fish, Wildlife, & Parks  
Helena, Montana

\_\_\_\_\_  
  
6/23/21

Date

Director Jim Douglas

Nebraska Game and Parks Commission  
Lincoln, Nebraska

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7-29-2021

Date

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Interim Director Scott Peterson

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Bismarck, North Dakota

Secretary Kevin Robling

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**Recommended By:**

Edward Tebo  
Chief, Public Works Environmental Division  
88th Readiness Division

*Scott Peterson, Interim Director*

4 August 2021  
Date

*[Handwritten Signature]*

8-9-21  
Date

*Robin Goodman (Acting Director)*

Robin Goodman (Acting Director) (Aug 6, 2021 15:23 MDT)

08/06/2021

Date

*John Kennedy*

8/20/2021

Date

MATTHEW HOGAN Digitally signed by MATTHEW HOGAN  
Date: 2021.08.17 14:53:17 -06'00'

August 17, 2021

Date

*[Handwritten Signature]*

9-27-21

Date

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# INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN

## 88th Readiness Division Installation Management Command - Army Reserve

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# AT A GLANCE

## USFWS Interior Region 5/7

- Colorado (CO)
- Kansas (KS)
- Montana (MT)
- Nebraska (NE)
- North Dakota (ND)
- South Dakota (SD)
- Utah (UT)
- Wyoming (WY)

## Total US Army Reserves Sites (USAR) - 46

## Local Training Areas (LTA) - 3

## High/Medium Resource Sites - 8

- Joe P. Martinez  
ARC/AMSA, Denver CO  
(CO017/08660)
- Windsor ARC, Windsor  
CO (CO130/08827)
- Colorado Springs ARC,  
Colorado Springs CO  
(CO147/ 810123)
- Sunflower LTA , Desoto  
KS (KS031/ 20790)
- Mead LTA, Mead NE  
(NE010/ 31895)
- Fort Stephen A.  
Douglas Reserve  
Complex, Salt Lake City  
UT (UT002/ 49276)
- Ray D. Jenkins ARC ,  
Logan UT  
(UT003/ 49655)
- Browning LTA, Ogden  
UT (UT007/49676)

# NATURAL RESOURCE MANAGER'S SUMMARY

## Executive Summary

This Integrated Natural Resources Management Plan (INRMP) serves as an update to the 2015 – 2020 U.S. Fish and Wildlife Service (USFWS) Region 6 INRMP signed in 2017. This INRMP is aligned with U.S. Fish and Wildlife Service (USFWS) Interior Region 5/7 and accounts for changes in the real property inventory for the USAR 88th Readiness Division (RD).

Many of the 88th RD owned and leased properties in USFWS Interior Region 5/7 are small, and management of the natural resources are done by applying best management practices (BMPs) identified by the Army that are relevant to wetlands, surface waters, and floodplains; threatened, endangered, and at-risk species; and invasive species.

Of special note for management within this region, there are three local training areas (LTAs), five sites with water resources (wetlands, surface water, floodplains), and one National Historic Landmark with cultural resource considerations for natural resources.

Threatened and Endangered (T&E) species management at 88th RD sites is achieved through applying best management practices (BMPs). In sites where the Natural Resource Survey (NRSRVY) program inculcates the potential for federally listed T&E species to occur, review of the NRSRVY to identify potential habitat for listed species is present on the site. If habitat occurs, then species specific presence/absence surveys are planned and conducted based on priority and when funding allows. Sites with recent T&E surveys in USFWS Interior Region 5/7 are covered in the site profiles, specifically at Mead LTA NE010/31895 and Sunflower LTA KS031/20790, both of which are high resource sites.

- Windsor Army Recruiting Center (ARC) (CO130/08827), Mead LTA (NE010/31895), and Browning LTA (UT007/49676) contain potentially jurisdictional wetlands. A perennial stream crosses Mead LTA (NE010/31895) and intermittent streams cross both Mead LTA (NE010/31895) and Sunflower LTA (KS031/20790).
- Emporia ARC (KS005/20700), Great Bend ARC Great Bend KS (KS010/20725), Osage City ARC Osage City KS (KS023/20767), Parsons ARC Parsons KS (KS026/20768), and Pittsburg ARC Pittsburg KS (KS027/207080) are all land leased properties.
- KS031/20790 Sunflower LTA, Desoto KS, NE010/31895 Mead LTA Mead NE, and UT003/49655 Jenkins ARC, Logan UT contain potentially suitable habitat for several federal- and state-listed species. A 2020 acoustic survey at KS031/20790 Sunflower LTA detected the federally endangered gray bat (*Myotis grisescens*).

- Martinez ARC / Area Maintenance Support Activity (AMSA (CO017/08660) and Colorado Springs ARC (CO147/810123) contain suitable habitat for black-tailed prairie dogs (BTPDs), a state species of concern located adjacent to the site. The BTPD populations tend to reach densities that exceed acceptable levels for Army Reserve site management.
- Mead LTA (NE010/31895) is used for outdoor training, and Ogden LTA (UT007/49676) is used for a variety of military training exercises on foot and in wheeled/tracked vehicles.
- Norfolk ARC Norfolk NE (NE011/3162A), North Platte ARC North Platte NE (NE012/3162B), North Platte AMSA (NE013/3126C), St. George ARC St. George UT (UT107/4991S) and Antelope Flats ARC Evansville WY (WY010/5660A) are all commercially leased properties.
- Fort Stephen A. Douglas AFRC Complex (UT002/49276), has trees that are significant contributing elements to the Fort Douglas National Historic Landmark and National Register Historic District and require special maintenance considerations. (See the Utah ICRMP and UT002 Tree Management Plan for greater detail).

In addition to identifying natural resources at all 88th RD owned and leased sites in USFWS Interior Region 5/7, this INRMP identifies specific projects as well as BMPs to manage the resources while conserving biological diversity in a way that supports the military mission and broader regional conservation initiatives. Planned project details are in Appendix C.

## Background

The Department of Defense (DoD) is required to develop and implement INRMPs for military installations across the United States in accordance with the Sikes Act (16 U.S. Code [USC] 670a-670f, as amended). INRMPs are planning documents that allow DoD installations to implement landscape-level management of their natural resources, to determine and ameliorate, where possible, the potential effects of climate change adaptation and resiliency where impacts may negatively affect military sites/readiness, while coordinating with various stakeholders. INRMPs help ensure military operations and natural resources conservation are integrated and consistent with stewardship and legal requirements. INRMPs are prepared in cooperation with the USFWS and State fish and wildlife agencies to ensure proper consideration of fish, wildlife, and habitat needs. The 2015 – 2020 USFWS Region 6 INRMP was analyzed under National Environmental Policy Act (NEPA), process that included public involvement. No significant changes were incorporated into the 2021 – 2025 INRMP Update therefore a Record of Environmental Consideration (REC) is an appropriate document to comply with NEPA, and may be found in Attachment.

## Purpose

This INRMP is the 88th RD's plan of action for the conservation of natural resources entrusted to the U.S. Army Reserves (USAR) at sites in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming.

It has been prepared in accordance with regulations, standards, and procedures of the DoD and the U.S. Army in cooperation with the:

- USFWS Interior Region 5/7 U.S. Fish and Wildlife Service (USFWS)
- Colorado Parks and Wildlife (CPW)
- Kansas Department of Wildlife, Parks, and Tourism (KDWPT)
- Montana Fish, Wildlife & Parks (MFWP)
- Nebraska Game and Parks Commission (NGPC)
- North Dakota Game and Fish Department (NDGFD)
- South Dakota Game, Fish, & Parks (SDGFP)
- Utah Division of Wildlife Resources (UDWR)
- Wyoming Game & Fish Department (WGFD)

This plan has a five-year time frame (2021-2025). The 88th RD will conserve its biological diversity and make sound decisions regarding the use of natural resources, incorporating climate change adaptation and resiliency to support both the military mission and broader regional conservation initiatives.

## Ecosystem Management

INRMPs are based on the principles of ecosystem management to support present and future training and testing requirements while preserving, improving, and enhancing ecosystem integrity. Over the long term, this approach maintains and improves the sustainability and biological diversity of terrestrial and aquatic, (fresh and marine) ecosystems while supporting sustainable economies, human use, and the environments required for realistic military training operation (Department of Defense Manual [DoDM] 4715.03, 25 NOV 2013).

The ecosystem management approach emphasizes management of functional habitat and conservation of intact ecological systems rather than management for individual wildlife or plant species. Adaptive management is an important component of ecosystem management.

The scope of this INRMP is 88th RD owned and leased properties accountable in Headquarters Installation Information System (HQIIS) across USFWS Interior Region 5/7 (Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming). Many of these sites are small, and considering their natural resources in the broader regional context supports the principles of ecosystem management.

## Climate Change Adaption and Resiliency

With the issuance of the DoDD 4715.21, *Climate Adaptation and Resilience* (August 31, 2018) coupled with the 2020 issuance of *Climate Adaption For Natural Resource Managers*, the Army is required to assess and manage risks from climate change. The directive provided a high-level formal commitment to integrating consideration of climate change into all aspects of Army activities, including natural resources management and the ability to carry out training in the field environment.

## Ecoregions

Ecoregions are ecosystems of regional extent. They distinguish areas that share common climatic and vegetation characteristics. For the purposes of this INRMP, the *USEPA Level III Ecoregions in the United States* provides continuity with respect to land classification which can help inform natural resource management planning as it provides a broader regional context for a site's natural resources. Nine states that make up the 88th RD sites in USFWS Interior Region 5/7 which includes the following 19 ecoregions:

- Western High Plains (CO, KS, NE, SD, WY)
- Colorado Plateaus (UT, WY)
- Southwestern Tablelands (CO)
- Central Great Plains (KS, NE)
- Central Irregular Plains (KS)
- Flint Hills (KS)
- Middle Rockies (MT, WY, SD)
- Northwestern Great Plains (MT, ND, SD, WY)
- Nebraska Sand Hills (NE)
- Western Corn Belt Plains (KS, NE, SD)
- Lake Agassiz Plain (ND)
- Northwestern Glaciated Plains (MT, ND, NE, SD)
- Central Basin and Range (CO, MT, UT, WY,)
- Mojave Basin and Range (UT)
- Wasatch and Units Mountains (UT)
- Northern Rockies (MT)
- Canadian Rockies (MT)
- Southern Rockies (CO, WY)
- Central Oklahoma/Texas Plains (KS)

## State Wildlife Action Plans

At the state level, wildlife action plans (SWAPs) describe the distribution and abundance of wildlife, including species with low and declining population numbers, as well as the location and condition of

key habitats required to support those species. The plans also include procedures for routine monitoring, assessment of plan effectiveness, and public participation.

All eight states in USFWS Interior Region 5/7 have existing plans. Most 88th RD sites are not large enough to contain native habitat for wildlife populations that warrant implementation of specific SWAP actions.



## 88th Readiness Division Mission

*The Readiness Division integrates capabilities with Reserve Commands to provide geographic programs and services that enhance individual and unit readiness, mobilization and deployment of Army Reserve forces. (Major General Darrell J. Guthrie United States Army Reserve (USAR) Commanding General 88th Readiness Division, 2021)*

**The 88th RD vision statement:** *Enabling Readiness Today and Always!*

This INRMP directly supports the mission by protecting and enhancing Army lands upon which the mission is dependent. The focus of all natural resource management is mission readiness and sustainability.

## 88th Readiness Division Sites

Across USFWS Interior Region 5/7, 46 sites support the 88th RD mission by providing administrative services, classroom training, light vehicle maintenance, and storage. Additional land use, specific to select sites, includes helicopter maintenance, flight operations, and training.

The eight state region this INRMP covers for both 88th RD owned and leased sites is illustrated in the map below. For more detailed maps, refer to the Site Location maps in Section 2.0.



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## 88th RD Sites in USFWS Interior Region 5/7

FACID/ Site Code	Site	FACID/ Site Code	Site
<b>Colorado</b>		<b>Montana</b>	
CO004/08705	Elmer E. Fryar ARC, Denver CO	MT001/30705	Roysdon Hall ARC, Billings MT
CO017/08660	Joe P. Martinez ARC/AMSA, Denver CO	MT008/30760	Ft. Wm. Henry Harrison AMSA #75(G) Helena MT
CO128/08801	William T. Fitzsimmons ARC, Aurora CO	MT029/30843	Butte ARC, Butte MT
CO130/08827	Windsor ARC, Windsor CO	<b>Nebraska</b>	
CO147/810123	Colorado Springs ARC, Colorado Springs CO	NE003/31857	GEN J. C. Fremont ARC, Fremont NE
<b>Kansas</b>		NE010/31895	Mead LTA, Mead NE
KS005/20700	Emporia ARC, Emporia KS	NE011/3162A	Norfolk ARC, Norfolk NE
KS010/20725	Ralph B. Praeger ARC, Great Bend KS	NE012/3162B	North Platte ARC, North Platte NE
KS013/20735	Independence ARC, Independence KS	NE013/3162C	North Platte AMSA #36, North Platte NE
KS014/20769	New Century ARC/ASF #37, New Century KS	NE023/31941	Gen John J. Pershing ARC, Lincoln NE
KS015/20747	Trembly White ARC, Kansas City KS	<b>North Dakota</b>	
KS016/20755	Lawrence ARC, Lawrence KS	ND001/38525	Lewis and Clark ARC/AMSA #108, Bismarck, ND
KS019/20765	Manhattan ARC, Manhattan KS	ND003/38650	Elton R. Ringsak ARC, Grand Forks ND
KS023/20767	Osage City ARC, Osage City KS	<b>South Dakota</b>	
KS026/20768	SSGT David Benner ARC/BMA #38, Parsons KS	SD001/46555	Charles J. Milbrandt AFRC, Aberdeen SD
KS027/20780	Pittsburg ARC, Pittsburg KS	SD008/46070	MSG Woodrow Wilson Keeble AFRC, Sioux Falls SD
KS029/20785	Salina ARC, Salina KS	<b>Utah</b>	
KS031/20790	Sunflower LTA, Desoto KS	UT002/49276	Fort Stephen ADouglas Reserve Complex, Salt Lake City UT
KS032/20799	Topeka ARC, Topeka KS	UT003/49655	Ray D. Jenkins ARC, Logan UT
KS037/20825	L. J. Wallace ARC/AMSA #38, Wichita KS	UT007/49676	Frank M. Browning ARC/LTA, Ogden UT
KS068/20966	New Century Land, New Century KS	UT009/49695	Dale Rex Hall ARC, Provo UT
KS083/20968	1SG Robert L. Kuhn ARC, Hays KS	UT010/49745	Moore Hall ARC, Salt Lake City UT
KS085/20967	Leavenworth ARC, Leavenworth KS	UT032/49850	Kenichi Uchida ARC, Salt Lake City UT
KS100/20966	New Century ARC/AMSA #57, New Century KS	UT107/4991S	St. George ARC, St. George UT
KS104/20936	Dodge City ARC, Dodge City KS	<b>Wyoming</b>	
KS105/20499	Tonganoxie ARC, Tonganoxie KS	WY010/5660A	Antelope Flats ARC, Evansville WY

AFRC – Armed Forces Reserve Center  
AMSA – Area Maintenance Support Activity

FACID – Site Identification  
LTA – Local Training Area

ASF – Aviation Support Facility  
ARC – U.S. Army Reserve Command

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## Natural Resources

Natural resources at 88th RD sites in USFWS Interior Region 5/7 are summarized below.

FACID	Site	Acres	High/Med/ Low	Wetlands	Surface Waters	Flood-plains	Listed Species	Flora	Erosion	Invasive Species	Description
CO004/08705	Elmer E. Fryar ARC, Denver CO	7.26	Low								
CO017/08660	Joe P. Martinez ARC/AMSA, Denver CO	20.36	High	✓			✓			✓	2019 NRSRVY - BT Prairie Dog population documented on and adjacent to CO017. BTPD is a species of special concern in CO. CO List B noxious species (Russian Olive ( <i>Elaeagnus angustifolia</i> ) is present in low numbers in the non-jurisdictional 0.15 acre forested wetland.
CO128/08801	William T. Fitzsimmons ARC, Aurora CO	20.72	Low		✓					✓	A detention pond occurs on site, but does not qualify as a wetland per the USACE determination form. Invasive species are associated with the disturbed field.
CO130/08827	Windsor ARC, Windsor CO	18.39	High	✓	✓						2018 NRSRVY - Wetland 1 – Approx. 0.04 ac PEM1F likely no fed. Jurisdiction. However local/state may protect, consult. prior to disturb. Wetland 2 – PEM1F 0.12 ac. which continues off site. The wetland is hydrologically connected via an R4UB unnamed stream to the Cache La Poudre River.
CO147/810123	Colorado Springs ARC, Colorado Springs CO	15.00	Med		✓		✓				2018 NRSRVY did not observe any BTPD on the site. BTPD population documented adjacent to CO147. BTPD is a species of special concern in CO. A 0.9 acre detention basin detains storm water runoff from impervious surfaces.
KS005/20700	Emporia ARC, Emporia KS	5.20	Low		✓						A drainage ditch occurs on the southern boundary. Land lease

FACID	Site	Acres	High/Med/ Low	Wetlands	Surface Waters	Flood-plains	Listed Species	Flora	Erosion	Invasive Species	Description
KS010/20725	Ralph B. Praeger ARC, Great Bend KS	2.60	Low			✓					KS010 lies within the 100-year floodplain of the Arkansas River. Land lease
KS013/20735	Independence ARC, Independence KS	5.17	Low		✓						A drainage ditch occurs on the southern boundary.
KS014/20769	New Century ARC/ASF #37, New Century KS	17.63	Low								
KS015/20747	Trembly White ARC, Kansas City KS	6.62	Low							✓	This site is vacant and awaiting disposal. Invasive species associated with the maintained lawn are low in density.
KS016/20755	Lawrence ARC, Lawrence KS	5.21	Low		✓						A drainage ditch occurs on the eastern side of KS016.
KS019/20765	Manhattan ARC, Manhattan KS	4.00	Low								
KS023/20767	Osage City ARC, Osage City KS	10.00	Low		✓						A drainage ditch drains northwest from the motor pool in the central area of KS023 to the western boundary. A second roadside ditch occurs along the northern boundary of KS023. Land lease
KS026/20768	Parsons ARC, Parsons KS	4.30	Low			✓					Portions are located within the 100-year floodplain of Little Labette Creek. Land lease
KS027/20780	Pittsburg ARC, Pittsburg KS	6.61	Low		✓	✓				✓	A drainage ditch occurs on the western boundary connects to unnamed tributary of East Crow Creek. KS027 lies within the 100-year floodplain and a portion of the 500-year floodplain of an unnamed tributary of East Cow Creek. Land lease
KS029/20785	Salina ARC, Salina KS	4.87	Low			✓					KS029 lies within the 500-year floodplain of the Smokey Hill River.
KS031/20790	Sunflower LTA, Desoto KS	77.12	High		✓		✓	✓		✓	Captain Creek, a perennial stream, and two intermittent streams cross KS031. Upland and bottomland deciduous forest are approx. 7 and 20 acres respectively, and

FACID	Site	Acres	High/Med/Low	Wetlands	Surface Waters	Flood-plains	Listed Species	Flora	Erosion	Invasive Species	Description
											the remaining approximately 50 acres are grasslands. Invasive species are associated with the grassland and upland deciduous forest.
KS032/20799	Topeka ARC, Topeka KS	11.69	Low							✓	Low densities of invasive species are associated with the maintained lawn.
KS037/20825	L. J. Wallace ARC/AMSA #38, Wichita KS	18.26	Low		✓						Two drainage man-made ditches occur at KS037; one near the northern boundary and the other near the center.
KS068/20966	New Century Land, New Century KS	5.38	Low							✓	Low densities of invasive species are associated with the shrub/scrub.
KS083/20968	1SG Robert L. Kuhn ARC, Hays KS	15.04	Low			✓					A portion of KS083 is located within the 100-year floodplain of an unnamed tributary of Big Creek.
KS085/20967	Leavenworth ARC, Leavenworth KS	23.63	Low		✓				✓	✓	A drainage ditch flows along the boundary from the northern portion of the site to the southeast corner. The hillside inside the western boundary of the site is eroding, and efforts should be stabilized and revegetated. Invasive species are associated with the grassland field.
KS100/20966	New Century ARC/AMSA #57, New Century KS	9.94	Low								
KS104/20936	Dodge City ARC, Dodge City KS	10.00	Low								
KS105/20499	Tonganoxie ARC, Tonganoxie KS	19.99	Low								New Site construction completed in 2018. NRSRVY completed in 2020.
MT001/30705	Roysdon Hall ARC, Billings MT	5.00	Low								
MT008/30760	Ft. Wm. Henry Harrison AMSA #75(G) Helena MT	14.14	Low				✓			✓	BTPD, a state species of concern, has been documented within 1,000 feet of MT008; however, potentially suitable habitat at MT008 is limited. Invasive species are low in density.
MT029/30843	Butte ARC, Butte MT	10.01	Low								

FACID	Site	Acres	High/Med/Low	Wetlands	Surface Waters	Flood-plains	Listed Species	Flora	Erosion	Invasive Species	Description
ND001/38525	Lewis and Clark ARC/AMSA #108, Bismarck, ND	10.34	Low								
ND003/38650	Elton R. Ringsak ARC, Grand Forks ND										
SD001/46555	Charles J. Milbrandt AFRC, Aberdeen SD	5.96	Low								
SD008/46070	MSG Woodrow Wilson Keeble AFRC	11.00	Low							✓	Low density invasive species present in landscaped areas.
NE003/31857	GEN J. C. Fremont ARC, Fremont NE	5.00	Low			✓					NE003 lies within the 500-year floodplain of the Platte River.
NE010/31895	Mead LTA, Mead NE	963.36	High	✓	✓			✓		✓	As of the 2018, NRSRVYUP an unnamed tributary of Clear Creek flows through the southern portion of NE010. 21 wetlands were identified at NE010. No suitable habitat exists for listed northern long-eared bat. 2019 Survey for W. Prairie Fringed Orchid and Salt Creek Tiger Beetle showed no presence. Potential stopover or nesting habitat for migratory songbirds. Invasive species are associated with wetlands.
NE011/3162A	Norfolk ARC, Norfolk NE	0.62	Low								Commercial leased site
NE012/3162B	North Platte ARC, North Platte NE	1.72	Low								Commercial leased site
NE013/3162C	North Platte AMSA #36, North Platte NE	0.66	Low								Commercial leased site
NE023/31941	Gen John J Pershing ARC, Lincoln NE	10.06	Low								



FACID	Site	Acres	High/Med/ Low	Wetlands	Surface Waters	Flood-plains	Listed Species	Flora	Erosion	Invasive Species	Description
UT002/49276	Fort Stephen A. Douglas Reserve Complex, Salt Lake City UT	50.88	High		✓			✓		✓	As of the 2018, NRSRVYUP and 2018 Fort Douglas Tree Management Plan, old-growth trees are an integral part of the historic landmark and district. Red Butte Creek is located within 1,000 southeast of the site bounds.
UT003/49655	Ray D. Jenkins ARC, Logan UT	6.00	Low		✓						As of the 2018, NRSRVYUP a 0.06 acre storm water detention basin is present on-site. Logan and Hyde Park Canal is located approximately 750 feet southeast of UT003.
UT007/49676	Frank M. Browning ARC/LTA, Ogden UT	138.41	Med	✓						✓	F/k/a Ogden UT035- As of the 2018 NRSRVYUP Three wetlands have been identified at UT007. Two small PEM1E, totaling 0.44 acres. The third wetland, a PEM1F wetland, is 0.11 acres. As of 2018, the invasive species present do not present a management issue.
UT009/49695	Dale Rex Hall ARC, Provo UT	4.63	Low								
UT010/49745	Moore Hall ARC, Salt Lake City UT	4.28	Low								
UT032/49850	Kenichi Uchida ARC, Salt Lake City UT	10.00	Low								
UT107/4991S	St. George ARC, St. George UT	2.67	Low		✓						Commercial lease site
WY010/5660A	Antelope Flats ARC, Evansville WY	8.27	Low								Commercial lease site

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## Priorities for Natural Resource Management

- **Wetlands, Surface Waters, Floodplains (WTLNDSRVY)**

Water resources management, specifically wetlands, surface waters, and floodplains, is important for maintaining training lands as well as providing ecological services including groundwater recharge and discharge, flood flow alteration, sediment stabilization, sediment or toxicant retention, nutrient removal or transformation, wildlife diversity/abundance, aquatic diversity/abundance, uniqueness/heritage, and recreation. Managing runoff and soil erosion are critical to managing these water resources.

- **Listed Species (ESSRVY)**

The federal Endangered Species Act (ESA) requires lands under the jurisdiction of the Department of the Army to conserve listed species. Conservation is the use of all methods and procedures necessary to bring any listed species to the point where protections provided by the Act are no longer necessary. Section 7 of the Act requires the Army to consult and confer with the USFWS if any action by the Army may affect a listed species or critical habitat.

There are no documented listed species identified on 88th RD sites in USFWS Interior Region 5/7.

- **Army Species At Risk**

Army species at risk (SAR) are plant or animal species that would have a significant impact on military missions if federally listed as threatened or endangered. These species may be official candidates for ESA listing, classified by NatureServe as critically imperiled or imperiled on a global scale, and/or a concern for ESA listing in the foreseeable future. These species may not yet be listed as threatened or endangered under the ESA but are of concern to the Army. Without a change in their management, their populations may continue experiencing significant declines leading to the listing on the endangered species list which in turn will lead to restrictions on the training mission.

There are no SARs documented on 88th RD sites in USFWS Interior Region 5/7.

- **Wildland Fire Management (WLDFIREPLN)**

Wildland fire management encompasses having plans in place for preventing/suppressing wildland fires, as well as applying prescribed burns for broader ecosystem management goals.

- **Invasive Species (INVSPLN)**

Invasive/toxic species pose threats to native habitats, endangered species, plant community composition and diversity, and training land sustainability. The 88th RD Pest Management Plan addresses monitoring and controlling invasive species when necessary.

Non-native invasive (NIS) species and state identified noxious/toxic species pose threats to endangered species, native habitats, plant community composition/diversity, soldiers, and training land sustainability. Invasive Species Management Plans identify specific actions to monitor and control NIS.

The following locations have Invasive Species Management Plans: NE010 Mead LTA and KS031 Sunflower LTA.

## **Management Goals and Identified Projects**

The natural resource management goals are presented by program element. Appendix C includes associated projects as well as relevant sites and time frames. This input is included in the 88th RD project planning (budgeting), execution, and tracking via the Natural Resource Metrics.

### **Agricultural Leases (AGLEASEIMPL)**

- Administer an agricultural outleasing program that provides a direct benefit to the mission and the environment.

### **Conservation Awareness (EARTHDAY)**

- Provide an understanding of 88th RD natural resources programs.

### **Conservation Awareness (TRNGCNS)**

- Provide an understanding of 88th RD natural resources programs. Review, update, and distribute natural resource resources information for LTAs.

### **Conservation Program Management**

- Provide staffing of qualified natural resource management professionals required to effectively manage natural resources on 88th RD lands.
- Provide for the training of natural resources personnel.
- Collect, store, analyze, and use data in an efficient, cost-effective manner.
- Provide external specialized skills and resources to support 88th RD natural resources programs.

### **Cultural Resources Protection**

- Project numbers associated with Cultural Resources Protection (CRCONSUL/CRSRVY/CRSRVYUP/ARCHSRVY/HISMGTPLN) are not represented in the IMRMP project matrix in Appendix C of this document, but can be found in Table 4-5 of the state appropriate ICRMP.
- Implement this INRMP in a manner consistent with the Integrated Cultural Resources Management Plans (ICRMP) and protection of cultural resources at 88th RD sites.
- Fully support compliance with federal cultural resources laws, specifically the National Historic Preservation Act.

### **Federal- Listed Species Management (ESSRVY/ESSRVYUP)**

- Comply with the ESA regarding federal-listed endangered, threatened, or candidate species.
- Monitor and manage special status, and Army SAR species to the degree possible with available funding.

### **Forestry Management (FORESTPLN, FORESTPLNIMPL)**

- Manage the forest ecosystem to support the military mission and maintain ecosystem integrity.

### **General Plant and Wildlife Management (ECOSYSMGT)**

- Manage aquatic and terrestrial habitat to support the military mission, maintain, and enhance ecosystem integrity.
- Partner with USFWS, state wildlife agencies, and LTA landowners to maintain plant and wildlife populations in accordance with endangered species recovery plans, species priorities, population ecology, population health considerations, and habitat capacities.
- Use native, non-invasive species to restore soil and vegetative integrity following soil-disturbing projects.

## **Grounds Management Support**

- Provide support to maintain aesthetically pleasing urban landscapes at 88th RD sites that maintain natural ecosystem functions. Encourage the use of native plant species whenever practical.

## **Integrated Natural Resources Management Planning (INRMPUP)**

- Use coordinated planning to fully integrate the natural resources program at 88th RD sites.

## **Integrated Training Area Management (ITAM)**

- Provide quality LTA training environments to support the Army's military mission and help ensure no net loss of training capability.

## **Migratory Bird Management (MBTASRVY)**

- Protect and monitor populations of migratory birds on 88th RD lands in accordance with DoD policy.

## **National Environmental Protection Act Implementation**

- Project numbers associated with National Environmental Protection Act Implementation (ENVASSESSMENT / NEPANONENV) have no representation in the IMRMP project matrix in Appendix C of this document as these projects are done on an as needed basis and typically are not scheduled in advance.
- Use NEPA to identify projects and activities on 88th RD lands that might impact natural resources and work with project planners to resolve issues early in the planning process.
- Use NEPA to ensure this INRMP is documented according to NEPA.
- Support the organization with complying with NEPA.

## **Natural Resources Enforcement**

- Assure legal compliance of military and civilian activities with regard to natural and cultural resources on 88th RD lands.

## **Natural Resource Survey (NRSRVY/NRSRVYUP)**

- Assesses the natural resources on each site. After the initial field survey, the data collected is evaluated and the site is determined to be either a high, medium, or low resource site. High and medium resource sites may have scheduled follow-up field surveys every five years.

## **Pest Management (IPMPUP)**

- Project numbers associated with Pest Management (IPMP/IPMPUP) are not represented in the IMRMP project matrix in Appendix C of this document, but can be found in the Integrated Pest Management Plan (IPMP).
- Survey for and control noxious and invasive exotic species to support the military mission, promote sustained ecosystem functionality, favor native species biodiversity, and add to the quality of life in the immediate areas surrounding 88th RD lands.

## **Soils Management (SLSH20MGT)**

- Ensure protection of all soils on 88th RD lands.

### **Water Resources Management**

- Protect surface water quality on 88th RD lands.

## **State-Listed Species Management (STATEESSRVY)**

- Comply with the state-listed endangered, threatened, or candidate species.

- Monitor and manage state-listed, special status, and Army SAR species to the degree possible with available funding.

### **Wetlands Management (WTLNDSRVY, WTLNDRESTR)**

- Avoid and minimize impacts to wetlands.
- Continue to maintain a database of wetland resources on 88th RD lands.
- Manage wetlands to ensure no net loss, per Executive Order 11990.
- When necessary to comply with regulatory requirements, restore wetland functions that may have been impaired by excessive invasive species or that have been compromised by unauthorized disturbance.
- Wetlands may be subject to 5-year field survey updates.

### **Wildland Fire Management (WILDFIREMGMT)**

- Maintain the established prescribed burning programs to sustain military mission capabilities, enhance ecosystem biodiversity and training functionality on 88th RD local training area (LTA) sites.

## Timeline

Regional INRMP  
Update Completed in  
2021

- FY22 Annual Review
- FY23 Annual Review
- FY24 Annual Review
- FY25 Annual Review
- FY26 Five-year  
Review

## Annual and 5-Year Reviews

INRMPs are reviewed by the 88th RD's Natural Resources Manager (NRM) and the Conservation Branch Manager DAC (Department of the Army Civilian) annually to assess progress made toward achieving goals and objectives and identify possible new projects. Additionally, every five years the NRM and DAC review INRMP to determine if the existing INRMP is still a viable document and its implementation meets the Sikes Act requirements.

The Conservation Branch Chief and Environmental Division Chief DAC, coordinates Annual INRMP reviews conducted by the NRM. The Director of Public Works approves the Annual review which and sends it to the 88th RD Commanding General for informational purposes.

After the end of the Fiscal Year (September) is when completed, Annual Review Summaries are submitted. Annual review process should be completed by 31 December. Only in the event of significant changes will an agency review be part of the annual review process.

The Conservation DAC coordinates the five year INRMP reviews conducted by the NRM, which includes coordination with the USFWS and State fish and wildlife agencies to reflect significant changes that have taken place at sites within the Region.

Section 5.4 provides a step-by-step guidance for the annual and five-year reviews.

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## Resources

### • State Wildlife Action Plans

- Colorado's Comprehensive Wildlife Conservation Strategy (2015)  
<http://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx>
- Kansas State Wildlife Action Plan (2016)  
<https://ksoutdoors.com/Services/Kansas-SWAP>
- Montana State Wildlife Action Plan (2015)  
<https://climatechange.lta.org/wp-content/uploads/cct/2019/04/MT-SWAP-FINAL-submitted-9-January-2015.pdf>
- Nebraska Natural Legacy Project and State Wildlife Action Plan (2011)  
<https://outdoornebraska.gov/naturallegacyproject/>
- North Dakota Comprehensive Wildlife Conservation Strategy (2015)  
<https://gf.nd.gov/wildlife/swap>
- South Dakota Wildlife Action Plan (2019)  
<https://gfp.sd.gov/wildlife-action-plan/>
- Utah Wildlife Action Plan (2015)  
<https://wildlife.utah.gov/discover/wildlife-action-plan.html>
- Wyoming State Wildlife Action Plan (2010)  
<https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>
- USFWS Environmental, Construction, Operations, and Services (ECOS) Database -  
[http://ecos.fws.gov/conserv\\_plans/public.jsp](http://ecos.fws.gov/conserv_plans/public.jsp)
- NatureServe Database -  
<http://www.natureserve.org/>

### • Landscape Conservation Cooperatives

- Eastern Tallgrass Prairie and Big Rivers -  
<http://www.tallgrassprairiebcc.org/>
- Great Plains -  
<http://www.greatplainslcc.org/>
- Great Northern -  
<http://greatnorthernlcc.org/>
- Plains and Prairie Potholes -  
<http://www.plainsandprairiepotholeslcc.org/>
- Southern Rockies -  
<http://southernrockieslcc.org/>

### • Cooperative Ecosystem Studies Units

- Colorado Plateau -  
[http://www.cesu.psu.edu/unit\\_portals/COP\\_L\\_portal.htm](http://www.cesu.psu.edu/unit_portals/COP_L_portal.htm)
- Rocky Mountains -  
[http://www.cesu.psu.edu/unit\\_portals/RO\\_MO\\_portal.htm](http://www.cesu.psu.edu/unit_portals/RO_MO_portal.htm)
- Great Plains -  
[http://www.cesu.psu.edu/unit\\_portals/GRP\\_L\\_portal.htm](http://www.cesu.psu.edu/unit_portals/GRP_L_portal.htm)

### • U.S. Geological Survey (USGS) National Climate Change and Wildlife Science Center (NCCWSC)

<https://nccwsc.usgs.gov/>

- North Central Climate Science Center -  
<http://www.doi.gov/csc/northcentral/index.cfm>
- Defense Environmental Network and Information Exchange (DENIX) Natural Resources -  
<http://www.denix.osd.mil/nr/>

## Potential Partners

- **USFWS Interior Region 5/7** - publications, conservation information, ESA information, regulations, etc. - <http://www.fws.gov/mountain-prairie/>
- **USFWS Field Offices** - <http://www.fws.gov/mountain-prairie/es/esfieldoffices.htm>
  - Colorado Field Office – Denver  
P.O. Box 25486, Denver Federal Center  
(MS 65412), Denver, CO 80225  
(303) 236-4773
  - Colorado Field Office – Western Colorado  
445 West Gunnison Avenue, Suite 240,  
Grand Junction, CO 81501-5711  
(970) 243-2778
  - Kansas Field Office  
2609 Anderson Avenue, Manhattan, KS  
66502 / (785) 539-3474
  - Montana Field Office  
585 Shepard Way, Helena, MT 59601  
(406) 449-5225
  - Nebraska Field Office  
9325 Alda Road  
Wood River NE 68883  
(308) 382-6468
  - North Dakota Field Office  
3425 Miriam Avenue, Bismarck, ND  
58501-7926 / (701) 250-4481
  - South Dakota Field Office  
420 S. Garfield Avenue, Suite 400,  
Pierre, SD 57501-5408 / (605) 224-8693
  - Utah Field Office  
2369 Orton Circle, Suite 50, West Valley  
City, UT 84119 / (801) 975-3330
  - Wyoming Field Office  
334 Parsley Boulevard  
Cheyenne, WY 82007 / (307) 772-2374
- **State Departments of Natural Resources (DNRs)** – publications, conservation information, regulations, etc.
  - <http://dnr.state.co.us/Pages/DNRDefault.aspx>
  - <http://www.kdwp.state.ks.us/>
  - <http://dnrc.mt.gov/>

- <http://www.dnr.ne.gov/>
- <http://gf.nd.gov/>
- <https://denr.sd.gov/>
- <http://naturalresources.utah.gov/>
- <http://wgfd.wyo.gov/>
- **U.S. Forest Service (USFS)**
  - Region 1 – Northern Region - <http://www.fs.usda.gov/r1>
  - Region 2 – Rocky Mountain Region - <http://www.fs.usda.gov/r2>
  - Region 4 – Intermountain Region - <http://www.fs.usda.gov/r4>
- **U.S. Army Environmental Command (USAEC)** - <http://aec.army.mil/>
- **USACE**
  - Northwest Division - <http://www.nwd.usace.army.mil/>
    - Omaha District - <http://www.nwo.usace.army.mil/>
    - St. Paul District - <http://www.nwo.usace.army.mil/>
  - South Pacific Division - <http://www.spd.usace.army.mil/>
  - Southwestern Division - <http://www.swd.usace.army.mil/>
- **State Historic Preservation Offices – Programs, cultural resource contacts**
  - Colorado - <http://www.historycolorado.org/>
  - Kansas - [http://www.kshs.org/portal\\_shpo](http://www.kshs.org/portal_shpo)
  - Montana - <http://mhs.mt.gov/shpo.aspx>
  - Nebraska - <http://www.nebraskahistory.org/histpres/index.shtml>
  - North Dakota - <http://history.nd.gov/hp/>
  - South Dakota - <http://history.sd.gov/preservation/>
  - Utah - <http://heritage.utah.gov/history>
  - Wyoming - <http://wyoshpo.state.wy.us/>

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## ACRONYMS and ABBREVIATIONS

1LT	First Lieutenant
AFRC	Armed Forces Reserve Center
AGL	above ground level
a/k/a	also known as
AMSA	Area Maintenance Support Activity
amsl	above mean sea level
AR	Army Regulation
ARC	Army Recruiting Center
ASF	Aviation Support Site
BASOPS	Base Operations
BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BGEPA	Bald and Golden Eagle Protection Act
BHE	BHE Environmental, Inc.
BMA	Branch Maintenance Activity
BMP	best management practice
BRAC	Base Realignment and Closure
BTPD	black-tailed prairie dog
°C	degrees Celsius
CFR	Code of Federal Regulations
CG	Commanding General
CNHP	Colorado Natural Heritage Program
CO	Colorado
COL	Colonel
CPW	Colorado Parks and Wildlife
CRM	Cultural Resources Manager
CWA	Clean Water Act
DAC	Department of Army Civilian
DEET	N, Ndiethyl-3-methylbenzamide
DENIX	DoD Environment, Safety and Occupational Health Network and Information Exchange
DNR	Department of Natural Resources
DoD	Department of Defense
DoDI	Department of Defense Instruction
DoDM	Department of Defense Manual
DOE	Department of Energy
DPW	Directorate of Public Works
E	endangered
EA	Environmental Assessment
ECOS	Environmental, Construction, Operations, and Services
ECS	Equipment Concentration Site
ED	Environmental Division
EIS	Environmental Impact Statement
EO	Executive Order
EPR	Environmental Program Requirements

## Acronyms and Abbreviations (Continued)

ESA	Endangered Species Act
ESMCP	Endangered Species Management Component Plan
°F	degrees Fahrenheit
FACID	Site Identification
FEMA	Federal Emergency Management Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FNSI	Finding of No Significant Impact
FY	Fiscal Year
f/k/a	formerly known as
GFEBs	General Funds Enterprise Business System
GIS	Geographic Information System
GPS	Global Positioning System
HQDA	Headquarters, Department of the Army
HQIIS	Headquarters Installation Information System
HUC	Hydrologic Unit Code
HWMP	Hazardous Waste Management Plan
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
IPM	Integrated pest management
IPMP	Integrated Pest Management Plan
ISMP	Invasive Species Management Plan
ITAM	Integrated Training Area Management
IWFMP	Integrated Wildland Fire Management Plan
KDHE	Kansas Department of Health and Environment
KDWP	Kansas Department of Wildlife and Parks
KNHI	Kansas Natural Heritage Inventory
KS	Kansas
LTA	Local Training Area
MAJ	Major
MAPS	Monitoring Avian Productivity and Survivorship
MBTA	Migratory Bird Treaty Act
MDNRC	Montana Department of Natural Resources and Conservation
MEP	Military Equipment Parking
MOU	Memorandum of Understanding
MSG	Master Sergeant
MT	Montana
NCCWSC	National Climate Change and Wildlife Science Center
ND	North Dakota
NDEQ	Nebraska Department of Environmental Quality
NE	Nebraska
NEPA	National Environmental Protection Act
NGO	Non-Governmental Organization
NHD	National Hydrography Dataset
NHL	National Historic Landmark

## Acronyms and Abbreviations (Continued)

NNHP	Nebraska Natural Heritage Program
NPL	National Priorities List
NR	Natural Resources
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRM	Natural Resources Manager
NRS	Natural Resource Survey (a/k/a Planning Level Survey (PLS))
NWI	National Wetlands Inventory
OMS	Organizational Maintenance Shop
OSD	Office of the Secretary of Defense
PEM1E	palustrine emergent persistent seasonally flooded/saturated
PEM1F	palustrine emergent persistent semi permanently flooded wetland
PFC	Private First Class
PIF	Partners in Flight
PLS	Planning Level Survey
PMC	pest management coordinator
POC	point of contact
PFC	Private First Class
PLS	Planning Level Survey (a/k/a Natural Resource Surveys)
PM	Project Manager
R4UB	Riverine intermittent unconsolidated bottom
REC	Record of Environmental Consideration
RMANWR	Rocky Mountain Arsenal National Wildlife Refuge
RPAC	Reserve Personnel Action Center
RD	Readiness Division
SAR	Species at Risk
SC	special concern
SE	state endangered
SD	South Dakota
SGT	Sergeant
SHPO	State Historic Preservation Office
SPCCP	Spill Prevention Control and Countermeasures Plan
SSGT	Staff Sergeant
ST	state threatened
Strg	storage
SWAP	State Wildlife Action Plan
SWG	State Wildlife Grant
SWPPP	Storm water Pollution Prevention Plan
T	Threatened
TBD	To Be Determined
T&E	Threatened and Endangered
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
USAR	U.S. Army Reserve
USC	U.S. Code

## Acronyms and Abbreviations (Continued)

USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UT	Utah
WAP	Wildlife Action Plan
WQC	Water Quality Certification
WQLW	water quality limited waterbody
WY	Wyoming

# INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN

## 88th Readiness Division Sites in USFWS Interior Region 5/7

### 1.0 Introduction

This Integrated Natural Resources Management Plan (INRMP) is the 88th Readiness Division's (RD) plan of action for the conservation of natural resources entrusted to the U.S. Army Reserve (USAR) at sites in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming. For over a century, the military's local training areas have been used to serve in this nation's defense. This INRMP is dedicated to the next generation of soldiers and other Americans who will use these lands and the natural resources.

This plan has a five-year time frame (2021-2025), but the philosophy behind it extends further. The 88th RD will conserve its biological diversity and make sound decisions regarding the use of natural resources to support both the military mission and broader regional conservation.

### 1.1 Purpose

The Army commitment to natural resources management is reflected in the U.S. Army Environmental Strategy into the 21st Century, which focuses on responsibly managing Army lands to ensure long-term natural resource productivity so the Army can achieve its mission. This Army commitment to natural resources management is further emphasized in Army Regulation (AR) 200-1 (*Environmental Protection and Enhancement*) (Department of the Army, 2007), and Headquarters, Department of Army INRMP Policy Memorandum, 21 March 1997 (*Army Goals and Implementing Guidance for Natural Resources Planning Level Surveys (PLS) and Integrated Natural Resources Management Plans (INRMP)*) (Department of the Army, 1997), which require that INRMPs be developed and maintained for all Army installations with significant natural resources, as well as establish policy, procedures, and responsibilities for Army lands and their natural resources.

The U.S. Army needs land to train troops and to build, test, and store materials. With land comes the responsibility of stewardship. The Army's conservation objectives are to:

- ensure land remains available for missions,
- maintain land in the best natural condition for realistic training
- preserve ecosystems,
- minimize land-related restrictions on training through good stewardship.

The 88th RD of the USAR is a 19-state virtual installation in the northwestern United States, providing services and base operations support for soldiers, families, civilians, and units (Figure 1.1). The Command is responsible for more than 200 sites.

This INRMP guides implementation of the natural resources program at 88th RD properties and lands within U.S. Fish and Wildlife Service (USFWS) USFWS Interior Region 5/7 (Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming), whether owned or leased, that have natural resources. The program manages these natural resources and helps ensure compliance with environmental laws and regulations. The INRMP is the guidance document that helps ensure the maintenance of quality training lands to accomplish the 88th RD's military mission on a sustained basis and to ensure that natural resources conservation measures and USAR military activities are integrated and consistent with federal stewardship requirements.

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## 1.2 Scope

This INRMP is the guidance document provides the basis and criteria for protecting and enhancing natural resources using soil conservation, watershed, landscape, and ecosystem perspectives, consistent with the military mission on all 88th RD owned and leased properties as reported in the General Funds Enterprise Business System (GFEBs). Throughout this INRMP, both 88th RD owned and leased properties are referred to as 88th RD properties or lands and are all treated the same for implementation of this plan. Provisions of the INRMP apply to each directorate, command, and tenant unit of the 88th RD, contractors, and individuals who either directly or indirectly uses 88th RD's natural resources, as well as units and outlying detachments of personnel assigned or attached to the 88th RD. This INRMP is an integral part of the 88th RD Real Property Master Planning activities.

## 1.3 Mission Goals and Objectives

The natural resources program mission, goals, and objectives are critical to help identify appropriate management strategies and provide direction for planning best management practices (BMPs) and projects that will lead to these goals and objectives being realized. In the paragraphs that follow are the overarching objectives used to attain 88th RD natural resources mission, and goals. These objectives serve as a checklist to monitor the success of the plan, but are contingent upon the availability of funding. Additional detail, including projects, goals and objectives, is provided in Section 4.0 Management Actions.

**Natural Resources Mission in Support of the Army Reserves** – Provides professional management and stewardship of natural resources on 88th RD lands while supporting the military mission, complying with environmental laws, along with providing opportunities for multiple compatible uses of natural resources.

**Goal 1.** Maintain quality natural resources on local training areas (LTA) as a critical training asset where the military mission of the 88th RD is accomplished.

**Objective.** Ensure no net loss in the capability of 88th RD property and land, whether owned or leased, to support existing and projected military training and operations on those properties.

**Goal 2.** Manage natural resources on all 88th RD property and land, owned or leased, to assure good stewardship of public lands entrusted to the Army's care.

**Objective 1.** Use adaptive ecosystem management strategies to protect, conserve, and enhance native fauna and flora with an emphasis on priority species and native biodiversity.

**Objective 2.** Monitor and manage soils, water, vegetation, and wildlife on 88th RD property with consideration for all biological communities and human values associated with these resources.

**Objective 3.** Coordinate, where appropriate, 88th RD natural resource programs with organizations both internal and external of the 88th RD, other agencies, and conservation organizations with similar interests.

**Goal 3.** Comply with laws and regulations that pertain to the management of 88th RD land and its natural resources.

**Objective 1.** Manage natural resources within the spirit and letter of environmental laws, and particularly the Sikes Act upon which this INRMP is predicated.

**Objective 2.** Protect, manage, and when necessary, restore sensitive species, habitats, and wetlands.

**Objective 3.** Use procedures within NEPA to make informed decisions that include natural resources considerations and mitigation.

**Objective 4.** Ensure 88th RD natural resources programs are consistent with the protection of cultural and historic resources.

**Objective 5.** Implement this INRMP within the framework of Department of Defense (DoD) and Army policies and regulations.

## **1.4 88th Readiness Division Responsibilities**

The 88th RD provides best in class services and base operations support for USAR soldiers, families, civilians, and units in the Northwest region of the United States. Highlighted within Section 1.4 are the parties responsible for oversight and implementation of the 88th RD natural resources program.

### **1.4.1 Commanding General**

The Commanding General of the 88th RD implements policies and directives of the Department of the Army and the Army Reserve Installation Management Command. The Commanding General bears ultimate responsibility for management of natural resources on all 88th RD lands. The Commanding General's support infers support by all other commands within the 88th RD. Acting through the Command Group, special staff, directors, and separate commanders, the Commanding General is responsible for (Department of the Army, 1995a):

- providing for funding and staffing of natural resources management professionals and other resources required to effectively manage natural resources on the installation[s];
- planning land utilization to avoid or minimize adverse effects on environmental quality and provide for sustained accomplishment of the mission;
- entering into appropriate cooperative plans (16 U.S. Code [USC] 670a) with state and federal conservation agencies for the conservation and development of fish and wildlife, soil, outdoor recreation, and other resources;
- ensuring the functioning of an Environmental Quality Control Committee;
- ensuring ongoing and timely coordination of current and planned land uses between mission, natural resources, environmental, legal, and master planning;
- inspecting and reviewing mitigation measures that have been implemented or recommended for the protection of natural resources as prescribed in environmental documentation in accordance with AR 200-1;
- ensuring all installation land users are aware of and comply with procedures and requirements necessary to accomplish objectives of this INRMP together with laws, regulations, and other measures designed to comply with environmental quality objectives; and
- appointing a natural resources management professional as the 88th RD Natural Resources (NR) Manager.

### **1.4.2 Directorate of Public Works (DPW), Environmental Division**

The 88th RD DPW, Environmental Division will manage and maintain the resources available to accomplish the INRMP and is responsible for (Department of the Army, 1995a):

- developing and implementing programs to ensure the inventory, delineation, classification, and management of all applicable natural resources to include wetlands, scenic areas, threatened and endangered species, sensitive and critical habitats, and other natural resource areas of special interest;
- providing for the training of natural resources personnel;

- implementing this INRMP;
- reviewing all environmental documents (e.g., remedial action plans, environmental assessments (EA) and environmental impact statements (EIS)), construction designs and proposals to ensure adequate protection of natural resources, ensuring that technical guidance as presented in this INRMP is adequately considered;
- coordinating with local, state, and federal governmental and civilian conservation organizations relative to natural resources management for 88th RD lands;
- managing all phases of the natural resources program for 88th RD property with appropriate natural resources management personnel; and
- administering all aspects of 88th RD pest control programs.

The 88th RD DPW Environmental Division is responsible for preparation and implementation of this INRMP.

### **1.4.3 Public Affairs Office**

The Public Affairs Office promotes an understanding of 88th RD environmental operations to the public and provides professional public affairs advice and support to 88th RD leaders and activities.

### **1.4.4 Staff Judge Advocate**

The Staff Judge Advocate provides legal advice, counsel, and services to Command, staff, and subordinate elements of the 88th RD. Specific Staff Judge Advocate responsibilities with regard to integrated natural resources management include:

- conducting legal research and preparing legal opinions pertaining to interpretation and application of laws, regulations, statutes, and other directives;
- coordinating with the Department of Justice, Litigation Division of the Office of the Judge Advocate General, and other governmental agencies on matters pertaining to litigation for the federal government;
- advising the 88th RD DPW Environmental Division on compliance with NEPA, especially with regard to management of endangered species on 88th RD lands; and
- advising the 88th RD on laws and regulations that affect training land use, management, and compliance.

### **1.4.5 Inspector General**

The Inspector General will determine whether the provisions of AR 200-1 are being adequately accomplished on 88th RD property in accordance with this INRMP and appropriate Army regulations.

## **1.5 USFWS and State Commitment**

The Sikes Act, DoD Instruction (DoDI) 4715.03, and AR 200-1 indicate that INRMPs must reflect mutual agreement of the USFWS and the appropriate state fish and wildlife agencies concerning conservation, protection, and management of fish and wildlife resources.

The USFWS and Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming state fish and wildlife agencies are committed to providing technical advice for management of natural resources at 88th RD properties. This includes recommendations to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their habitats.

The 88th RD coordinated with the USFWS to develop plans for management of fish and wildlife resources on sites in USFWS Interior Region 5/7. The USFWS Interior Region 5/7 Office reviewed draft documents. The USFWS Interior Region 5/7 Director has signed this INRMP, signifying agreement with the INRMP as it pertains to conservation and management of fish and wildlife resources on 88th RD sites within USFWS Interior Region 5/7.

The 88th RD also coordinated with the Directors of the Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming state fish and wildlife agencies regarding the conservation, protection, and management of fish and wildlife resources on sites in USFWS Interior Region 5/7. They reviewed draft documents applicable to their state, and the Directors have signed the plan, signifying agreement with the INRMP as it pertains to conservation and management of fish and wildlife resources on 88th RD sites.

The 88th RD will continue to coordinate with the USFWS and state fish and wildlife agencies during implementation of the INRMP to share information about the presence and management of threatened and endangered species, migratory birds, and other fish and wildlife. The 88th RD will solicit input from the USFWS and State Departments of Natural Resources (DNRs) during INRMP reviews and updates as described in the sections that follow.

## **1.6 Role of Annual and Five Year Reviews**

INRMPs are reviewed annually by fiscal year to assess progress made toward achieving the 88th RD's goals and objectives and to identify new requirements. Five year reviews will be conducted to determine whether the existing INRMP is being effectively implemented to meet the requirements of the Sikes Act. The DoD's INRMP Implementation Manual covers INRMP reviews, updates, and revisions (DoD Manual [DoDM] 4715.03, 2013).

### **1.6.1 Annual INRMP Review**

The annual INRMP review provides the 88th RD NRM along with the Conservation Branch Manager DAC (Department of the Army Civilian) the opportunity to assess whether changes have occurred in the military mission, condition of natural resources, environmental regulations, or other factors that significantly affect implementation of the INRMP. The NRM reviews the INRMP goals and objectives, provides a Project Manager (PM) initiated schedule for undertaking proposed actions, and determines adjustments needed to keep INRMPs current. Progress is contingent upon the availability of funding. If significant changes occur, the annual INRMP update will be coordinated with the USFWS and state fish and wildlife agencies. More details on the annual review process are provided in Section 5.4.

### **1.6.2 Five-Year INRMP Review**

If the Environmental Division Chief determines there are no substantive changes to the INRMP then a memorandum will be sent to the state and federal agencies notifying them that there are no substantive changes with a request for their concurrence.

If at the five-year review it is determined that there have been substantive changes the document will be updated by the 88th RD Environmental Division and validated by: the Commanding General, the Regional Director of USFWS Interior Region 5/7, and the Directors of the state fish and wildlife agencies.

The five-year review process is discussed further in Section 5.4.

## 2.0 Mission and Land Use

This section describes the 88th RD mission, sites, and land use and how the INRMP contributes to mission sustainability. The goal of DoD environmental programs and policies is conserving the environment for mission sustainability. Environmental stewardship is an integral part of the mission at all 88th RD sites. Responsibly managing the Army Reserves lands ensures facilitating the Army's mission while protecting long-term natural resource productivity.

### 2.1 Mission Sustainability

Army training requires the placement of personnel and equipment in similar to real combat situations. Natural conditions must be maintained on training lands.

- Wooded areas provide some of the best concealment and bivouac protection on training areas. Forests provide the military natural services such as noise reduction, visual barriers, dust control and maneuver obstacles.
- Grasslands/prairie lands also provide suitable habitats for individual concealment, air-drop operations, and certain small unit operations.
- Wetlands, although a critical part of ecosystems, are fragile and should be avoided during military operations.

Heavy or concentrated traffic and repeated bivouacking on any one portion of land should be managed to prevent soil compaction, erosion, and permanent vegetative disturbances. However, in some cases, periodic military disturbances have been shown to improve biodiversity for disturbance dependent species.

### 2.2 88th Readiness Division Mission

*The Readiness Division integrates capabilities with Reserve Commands to provide geographic programs and services that enhance individual and unit readiness, mobilization and deployment of Army Reserve forces. (Major General Darrell J. Guthrie United States Army Reserve (USAR) Commanding General 88th Readiness Division, 2021)*

*The 88th RD vision statement: Enabling Readiness Today and Always!*

This INRMP supports the mission by protecting and enhancing Army lands upon which the mission is dependent. The INRMP describes impacts of the mission upon natural resources and means to mitigate these impacts. However, this INRMP does not evaluate the 88th RD's mission, nor does it replace any requirement for environmental documentation of the mission on any 88th RD owned or leased properties.

### 2.3 Site Locations and Land Use

Sites owned or leased by the 88th RD in USFWS Interior Region 5/7 are presented in Table 2.1. Site locations are shown on Figure 2.1 (Colorado), Figure 2.2 (Kansas), Figure 2.3 (Montana), Figure 2.4 (Nebraska), Figure 2.5 (North Dakota), Figure 2.6 (South Dakota), Figure 2.7 (Utah), and Figure 2.8 (Wyoming). Profiles for high and medium resource sites are located in Section 3, low resource sites are presented in Appendix B.

Site land use includes administrative services, classroom training, light vehicle maintenance, and storage. Additional land uses, specific to select sites, include helicopter maintenance, flight operations, and training. Site land use is discussed further in Section 3 for the high and medium resource sites and in Appendix B for low resource sites.

Ogden Storage Facility 11-C (UT019/49844) and the Ogden Maintenance Center 269 (UT030/49856) are not represented in the site location facilities but are included in the Climate Table 3.1. Neither of these site have natural resources associated with their real estate surfaces are either concrete or buildings.

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**Table 2.1 Sites in the 88th RD—USFWS Interior Region 5/7**

<b>FACID</b>	<b>Site Code</b>	<b>Name</b>	<b>County</b>	<b>Description</b>	<b>Real Estate Acres *</b>
<b>COLORADO</b>					
CO004	08705	Elmer E. Fryar ARC, Denver CO	Jefferson	ARC, OMS, STRG(3), Land	7.20
<b>CO017</b>	<b>08660</b>	<b>Joe P. Martinez ARC/AMSA, Denver CO</b>	<b>Adams</b>	<b>ARC, OMS/AMSA, Land</b>	<b>20.32</b>
CO128	08801	William T. Fitzsimons ARC, Aurora CO	Adams	ARC, OMS, Land	20.73
<b>CO130</b>	<b>08827</b>	<b>Windsor ARC, Windsor CO</b>	<b>Larimer</b>	<b>Land</b>	<b>18.39</b>
<b>CO147</b>	<b>810123</b>	<b>Colorado Springs ARC, Colorado Springs CO</b>	<b>El Paso</b>	<b>Land</b>	<b>15</b>
<b>KANSAS</b>					
KS005	20700	Emporia ARC, Emporia KS	Lyon	ARC, OMS, Land	5.20
KS010	20725	Ralph B. Praeger ARC, Great Bend KS	Barton	ARC, OMS, STRG, Land	2.60
KS013	20735	Independence ARC, Independence KS	Montgomery	ARC, OMS, Land	5.17
KS014	20769	New Century ARC/ASF #37, New Century KS	Johnson	Land, ARC/ASF, OMS, STRG	15.97
KS015	20747	Trembly White ARC, Kansas City KS	Wyandotte	Land, ARC, OMS	6.56
KS016	20755	Lawrence ARC, Lawrence KS	Douglas	ARC, OMS, STRG, Land	5.21
KS019	20765	Manhattan ARC, Manhattan KS	Riley	ARC, OMS, Land	4.00
KS023	20767	Osage City ARC, Osage City KS	Osage	ARC, OMS, Land	10.00
KS026	20768	Parsons ARC, Parsons KS	Labette	ARC, OMS, AMSA, Land	5.00
KS027	20780	Pittsburg ARC, Pittsburg KS	Crawford	ARC, OMS, Land	6.61
KS029	20785	Salina ARC, Salina KS	Saline	ARC, OMS, STRG, Land	4.87
<b>KS031</b>	<b>20790</b>	<b>Sunflower LTA, Desoto KS</b>	<b>Johnson</b>	<b>LTA, Land</b>	<b>80.00</b>
KS032	20799	Topeka ARC, Topeka KS	Shawnee	ARC, Land, OMS	11.69
KS037	20825	L. J. Wallace ARC/AMSA #38, Wichita KS	Sedgwick	STRG, Land, ARC, OMS/AMSA	17.46
KS068	20966	New Century Land, New Century KS	Johnson	Land	5.38
KS083	20968	1SG Robert L. Kuhn ARC, Hays KS	Ellis	Land, ARC, OMS, Other	15.04
KS085	20967	Leavenworth ARC, Leavenworth KS	Leavenworth	Land, ARC, OMS	23.63
KS100	20966	New Century ARC/AMSA #57, New Century KS	Johnson	STRG, Land, ARC, AMSA	9.94
KS104	20936	Dodge City ARC, Dodge City KS	Ellis	ARC, OMS, Land	10.00
KS105	20499	Tonganoxie ARC, Tonganoxie KS	Leavenworth	ARC	19.9
<b>MONTANA</b>					
MT001	30705	Roysdon Hall ARC, Billings MT	Yellowstone	ARC, OMS, STRG, Land	5.00
MT008	30760	Ft. Wm. Henry Harrison AMSA 75 (G), Helena MT	Lewis and Clark	AMSA, Land	14.14
MT029	30843	Butte ARC, Butte MT	Silver Bow	ARC, STRG, Land, OMS	10.01
<b>NEBRASKA</b>					
NE003	31857	Fremont ARC, Fremont NE	Dodge	Land, ARC, OMS	5.00
<b>NE010</b>	<b>31895</b>	<b>Mead LTA, Mead NE</b>	<b>Saunders</b>	<b>LTA, Land</b>	<b>960</b>

FACID	Site Code	Name	County	Description	Real Estate Acres*
NE011	3162A	Norfolk ARC, Norfolk NE	Madison	ARC, Land	0.62
NE012	3162B	North Platte ARC, North Platte NE	Lincoln	ARC, Land	1.72
NE013	3163C	North Platte AMSA #36, North Platte NE	Lincoln	AMSA, Land	0.66
NE023	31941	Gen John J Pershing ARC, Lincoln NE	Lancaster	Land, ARC, STRG, OMS	10.06
<b>NORTH DAKOTA</b>					
ND001	38525	Lewis and Clark ARC/AMSA #108, Bismarck, ND	Burleigh	ARC, STRG, OMS/AMSA, Land	10.34
ND003	38650	Elton W. Ringsak ARC, Grand Forks SD	Grand Forks	ARC, OMS, Land	4.30
<b>SOUTH DAKOTA</b>					
SD001	46555	Charles J. Milbrandt AFRC, Aberdeen SD	Brown	Land, STRG, AFRC, OMS/AMSA, ARC	5.96
SD008	46070	MSG Woodrow Wilson Keeble AFRC, Sioux Falls SD	Minnehaha	Land, ARC, OMS, STRG	11.00
<b>UTAH</b>					
<b>UT002</b>	<b>49276</b>	<b>Fort Stephen A. Douglas Reserve Complex, Salt Lake City UT</b>	<b>Salt Lake</b>	<b>AFRC, STRG, Land, Other</b>	<b>49.68</b>
<b>UT003</b>	<b>49655</b>	<b>Ray D. Jenkins ARC, Logan UT</b>	<b>Cache</b>	<b>ARC, OMS, LTA, Land</b>	<b>6.00</b>
<b>UT007</b>	<b>49676</b>	<b>Frank M. Browning ARC, Ogden UT</b>	<b>Weber</b>	<b>ARC, OMS, Land</b>	<b>138.41</b>
UT009	49695	Dale Rex Hall ARC, Provo UT	Utah	ARC, OMS, STRG, Land	4.63
UT010	49745	Moore Hall ARC, Salt Lake City UT	Salt Lake	ARC, OMS, STRG, Land	4.28
UT032	49850	Kenichi Uchida ARC, Salt Lake City UT	Salt Lake	ARC, OMS, STRG, Land, Other	10.00
UT107	4991A	St. George ARC, St. George UT	Washington	ARC, Land	2.67
<b>WYOMING</b>					
WY010	5660A	Antelope Flats ARC, Evansville WY	Natrona	ARC, OMS/AMSA, Land	8.27

**Bold indicates High/Medium Resource site**

\*- As reported in Real Property Detail Report

1SG – First Sergeant  
AFRC – Air Force Reserve Command  
ASF – aviation support sites  
ARC – U.S. Army Reserve Command  
NR – Natural Resources  
BMA – Branch Maintenance Activity  
COL – Colonel  
ECS – Equipment Concentration Site  
Ft. – Fort  
LTA – local training area  
MSG – Master Sergeant  
OMS – Organizational Maintenance Shop  
SSGT – Staff Sergeant  
STRG – Storage

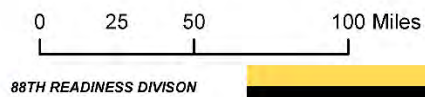
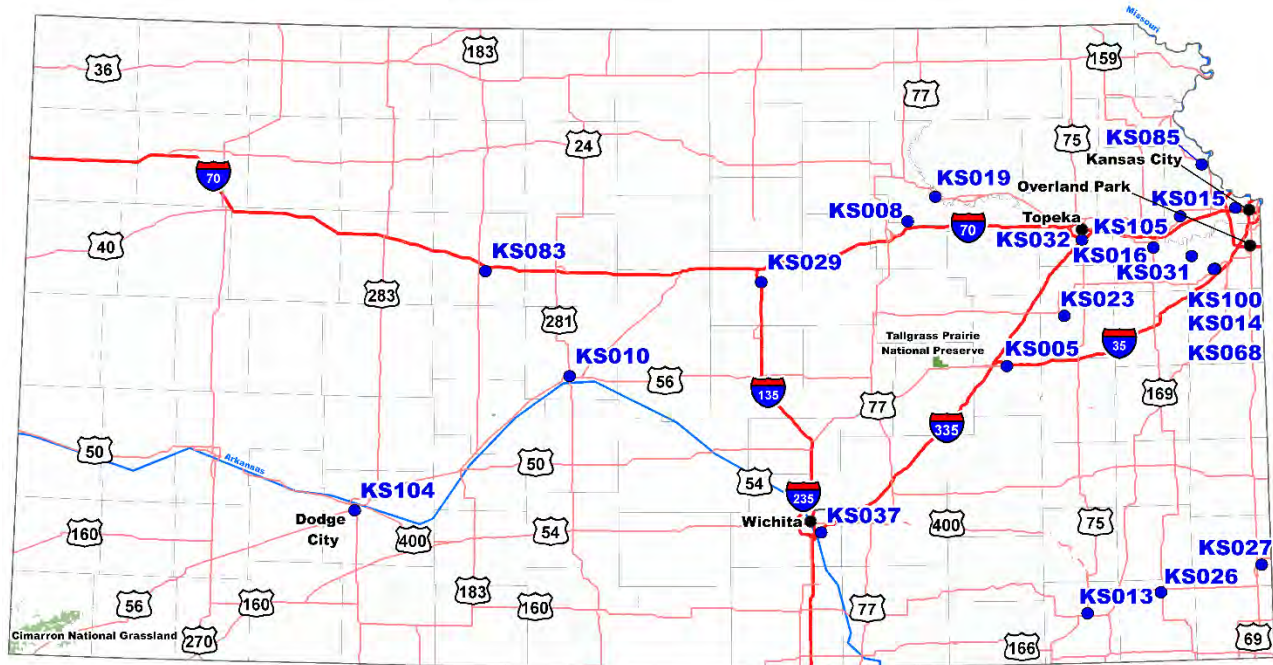




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# Kansas



### Legend

● 88th RD Site Locations

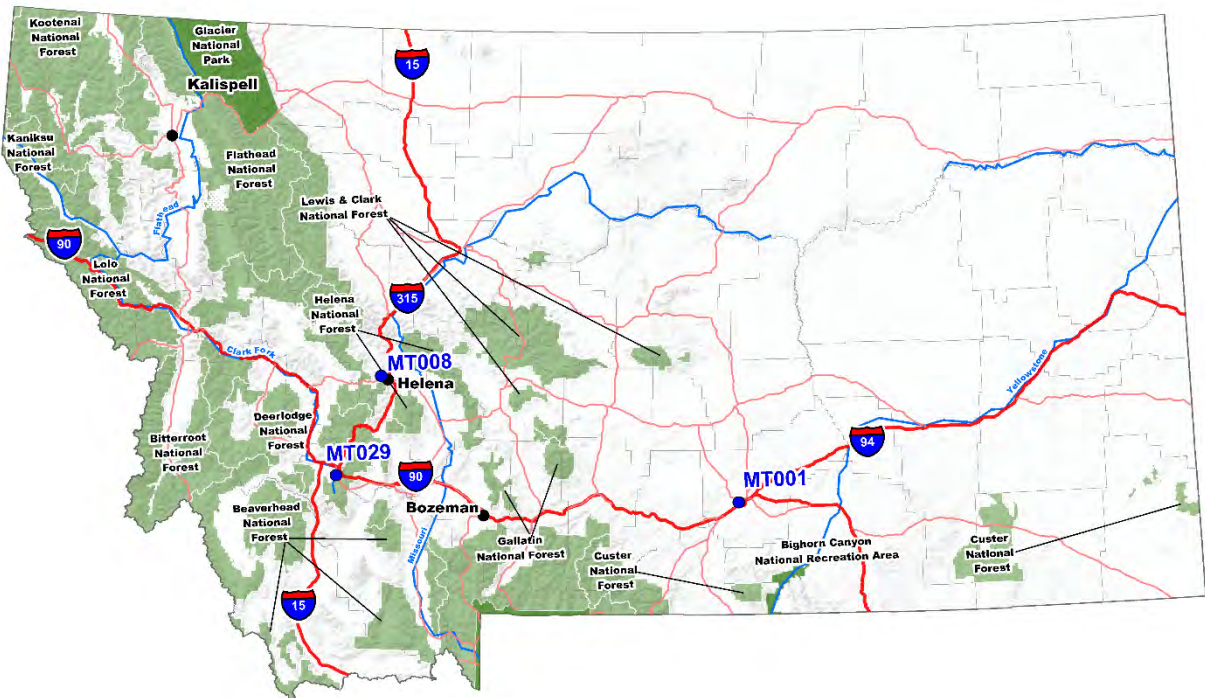
Figure 2.2  
Site Locations  
Kansas

Figure 2.2 Site Locations – Kansas

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# Montana



0 25 50 100 150 Miles

### Legend

● 88th RD Site Locations

**Figure 2.3  
Site Locations  
Montana**

88TH READINESS DIVISION

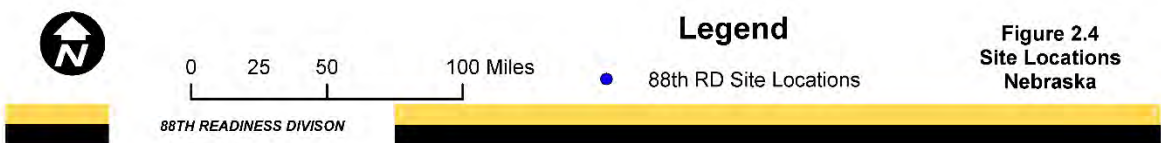
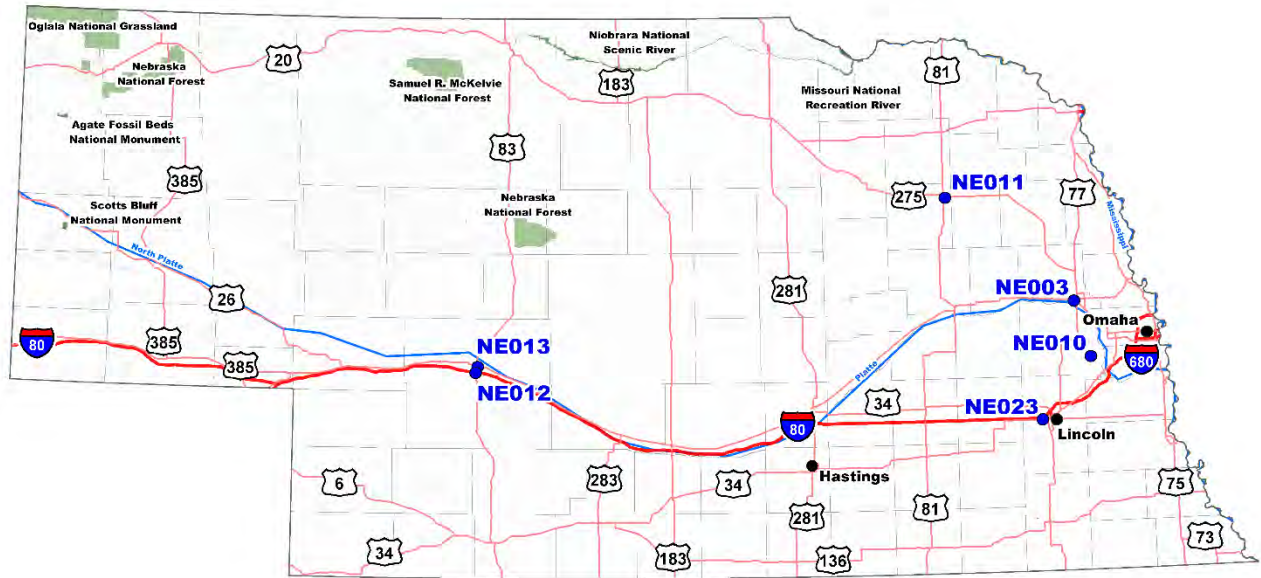
**Figure 2.3 Site Locations – Montana**

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# Nebraska



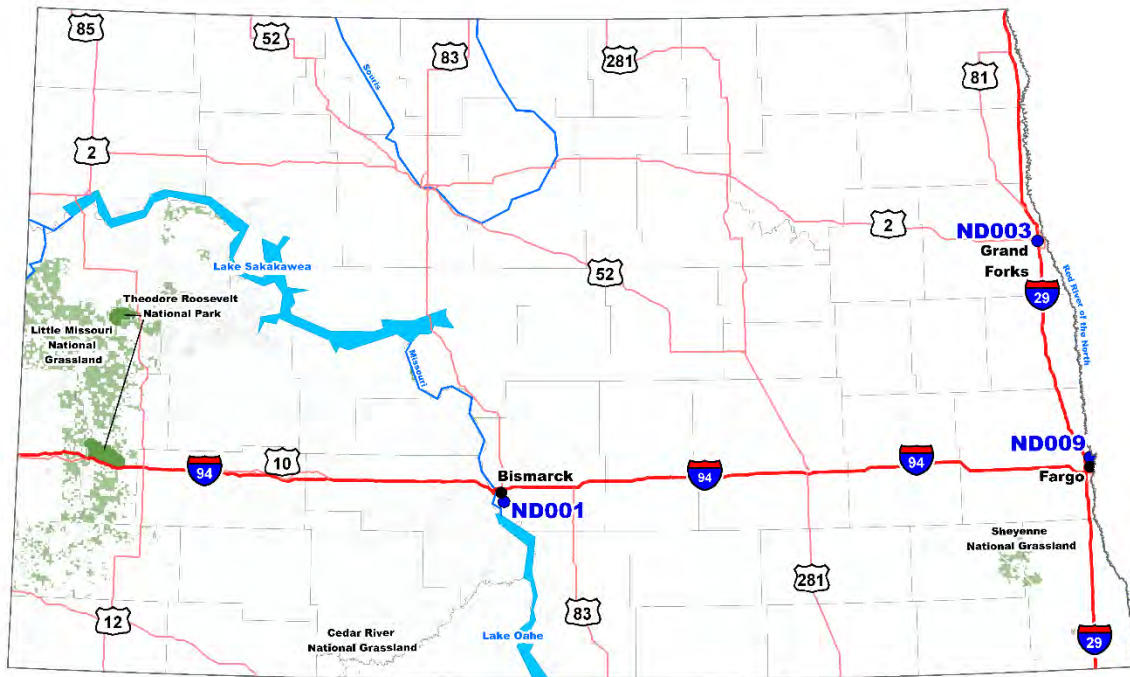
**Figure 2.4 Site Locations – Nebraska**

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# North Dakota



## Legend

● 88th RD Site Locations

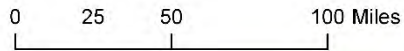
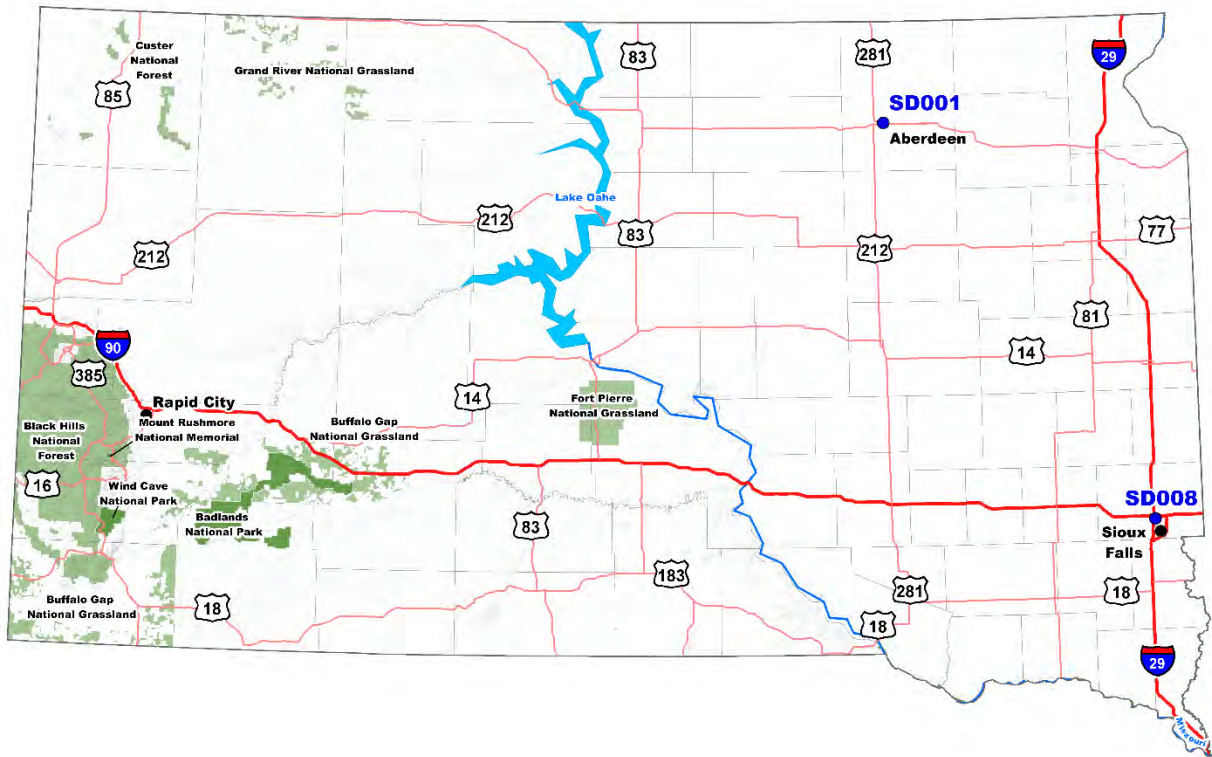
Figure 2.5  
Site Locations  
North Dakota

Figure 2.5 Site Locations – North Dakota

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# South Dakota



### Legend

● 88th RD Site Locations

Figure 2.6  
Site Locations  
South Dakota

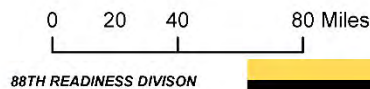
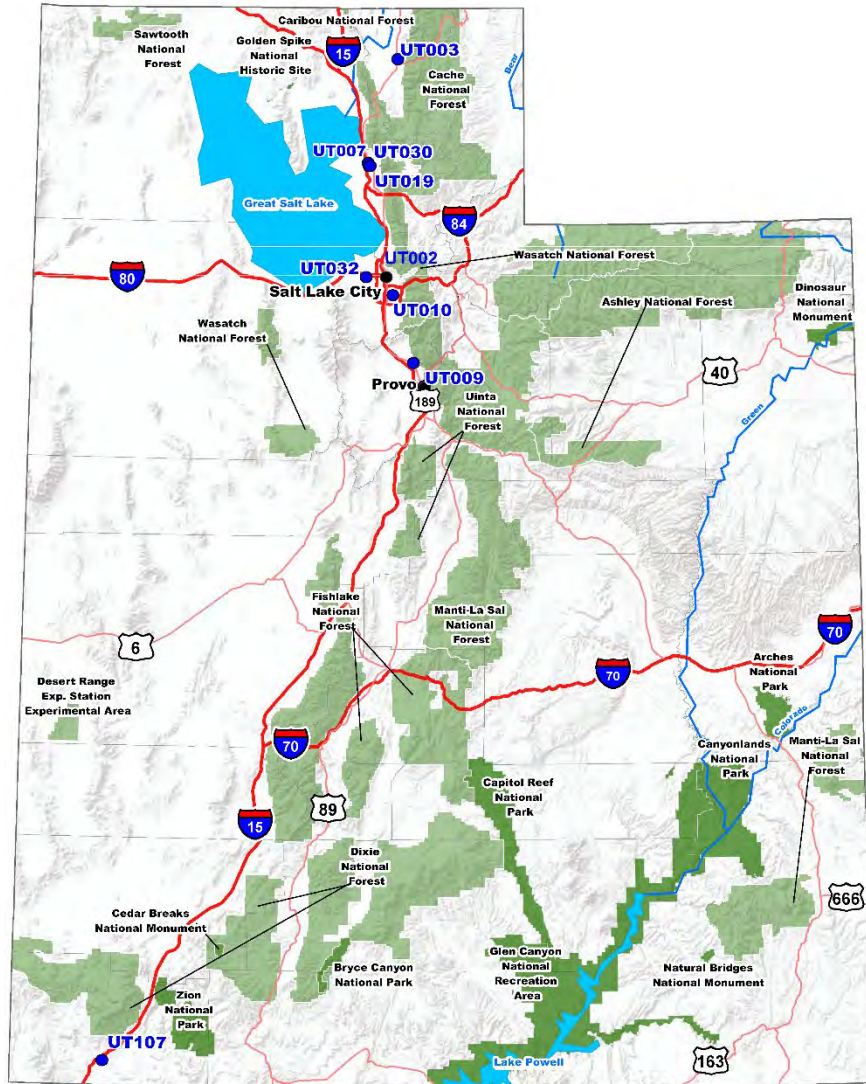
88TH READINESS DIVISION

Figure 2.6 Site Locations – South Dakota

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# Utah



### Legend

● 88th RD Site Locations

Figure 2.7  
Site Locations  
Utah

88TH READINESS DIVISION

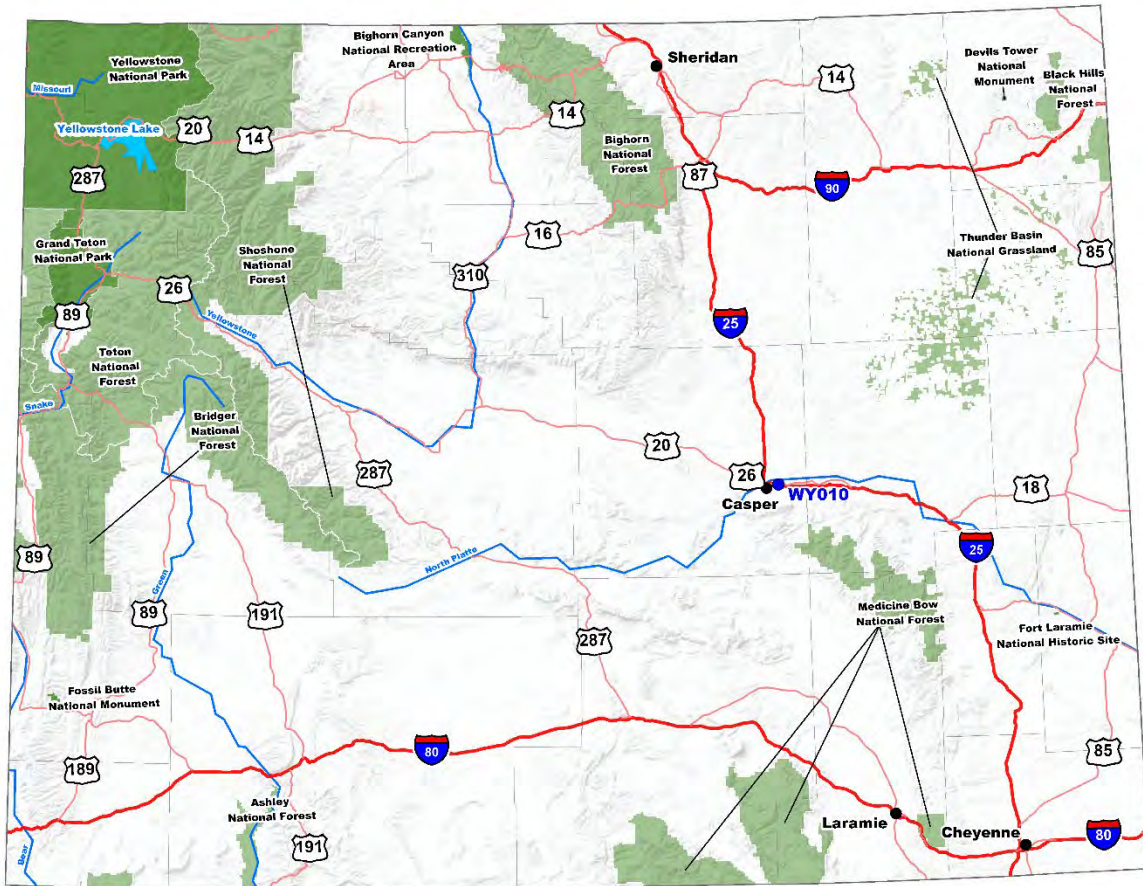
Figure 2.7 Site Locations – Utah

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# Wyoming



0 20 40 80 Miles

### Legend

● 88th RD Site Locations

Figure 2.8  
Site Locations  
Wyoming

88TH READINESS DIVISION

Figure 2.8 Site Locations – Wyoming

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## 3.0 Natural Resources

***“We do not own this land; we are caretakers of the land and the plant and animal species that inhabit it. The American people entrust the land to our care, and we shall fulfill their trust. We shall conserve and protect these resources for the future.”***

Robert M. Walker, former Assistant Secretary of the Army,  
Testimony before Congress, July 11, 1995.

This section describes biodiversity conservation, ecosystem management, and Army Species at Risk (SAR) management as guiding principles for natural resources management. Additionally, provides a regional perspective for the 88th RD properties and lands covered in this INRMP, and identifies the natural resources that are managed on these properties and lands in support of the mission.

### 3.1 Biodiversity Conservation, Ecosystem Management, and Army SAR Management

#### 3.1.1 Biodiversity Conservation

Biological diversity (biodiversity) refers to the variety and variability among living organisms and the environment in which they occur. Biodiversity has meaning at various levels including ecosystem diversity, species diversity, and genetic diversity.

As per the Department of Defense Instruction (DoDI) number 4715.03 (Incorporating change 2 dated August 31, 2018) regarding the Natural Resources Conservation Program:

- (1) Foster long-term sustainability of ecosystem services.
  - a. Biodiversity conservation on DoD lands and waters should be followed whenever practicable to:
    - (1) Maintain or restore remaining native ecosystem types across their natural range of variation.
    - (2) Maintain or reestablish viable populations of native species on an installation, when practical.
    - (3) Maintain ecological processes, such as disturbance regimes, hydrological processes, and nutrient cycles, to the extent practicable.
    - (4) Manage and monitor resources over sufficiently long periods to allow for adaptive management and assessment of changing ecosystem dynamics (i.e., incorporate a monitoring component to management plans).
  - b. Each DoD Component should use heritage and other natural resources database networks whenever appropriate.
  - c. DoD shall, to the best of its ability, implement conservation and management efforts to further the conservation of State-listed species when such action is practicable and does not conflict with legal authority, military mission, or operational capabilities.
  - d. DoD shall identify, prioritize, monitor, and control invasive and noxious species and feral animals on its installations whenever feasible. Accordingly, native species should be used, where feasible, to restore any habitats from which native species are removed or controlled.

- e. DoD shall restore or rehabilitate altered or degraded landscapes and associated habitats to promote native ecosystems and land sustainability when such action is practicable and does not conflict with military mission or capabilities consistent with E.O. 13514 (Reference (ad)).

### **3.1.2 Ecosystem Management**

The ecosystem management approach emphasizes management of functional habitat and conservation of intact ecological systems rather than management for individual wildlife or plant species. The 88th RD will continue to use ecosystem management to guide its program for the environmental conservation program.

As per the Department of Defense Instruction (DoDI) number 4715.03 (Incorporating change 2 dated August 31, 2018):

Ecosystem-based management will:

- (1) Avoid single-species management and implement an ecosystem-based multiple species management approach, insofar as that is consistent with the requirements of the ESA.
- (2) Use an adaptive management approach to manage natural resources such as climate change.
- (3) Evaluate and engage in the formation of local or regional partnerships that benefit the goals and objectives of the INRMP.
  - (a) Due to policy and fiscal implications, partnerships involving external stakeholders or multiple Military Services require proper advanced coordination through DoD Component chains of command.
  - (b) Natural resources personnel must be included in the planning and implementation phases of all resulting agreements.
- (4) Use the best available scientific information in decision-making and adaptive management techniques in natural resource management.

### **3.1.3 Army Species at Risk (SAR)**

Army SAR (also known as the DOD Species at risk on DoD Environment, Safety and Occupational Health Network and Information Exchange (DENIX)) are plant or animal species that would have a significant impact on military missions if federally listed as threatened or endangered. These species may be official candidates for Endangered Species Act (ESA) listing, classified by NatureServe as critically imperiled or imperiled on a global scale, and/or a concern for ESA listing in the foreseeable future. These species are not yet listed as threatened or endangered under the ESA but are of concern to the Army. Without a change in their management, their populations may continue experiencing significant declines leading to the listing on the endangered species list which in turn will lead to restrictions on the training mission. Protecting these species is critical; therefore, the installation INRMP should consider funding for SAR protection a high priority. The Army's policy is to manage SAR proactively in order to prevent ESA listings that could severely degrade military readiness.

No SARs have been documented on 88th RD sites in USFWS Interior Region 5/7.

## 3.2 Regional Perspective

This INRMP covers 88th RD owned and leased properties in USFWS Interior Region 5/7. Many of these sites are small, and it is important to consider their natural resources in the broader regional content. These sites span 18, ecoregions and eight states. (Level III Ecoregions of the Continental United States, USEPA May 2003)

### 3.2.1 USEPA Level III Ecoregions

USEPA Level III Ecoregions are ecosystems of regional extent. They distinguish areas that share common climatic and vegetation characteristics. The USEPA uses a four-level hierarchy to differentiate them:

- *Domains* are groups of related climates and are differentiated based on precipitation and temperature. There are four domains used for worldwide ecoregion classification and all four appear in the United States: the polar domain, the humid temperate domain, the dry domain, and the humid tropical domain.
- *Divisions* represent the climates within domains and are differentiated based on precipitation levels and patterns as well as temperature.
- *Provinces* are differentiated based on vegetation or other natural land covers. Mountainous areas that exhibit different ecological zones based on elevation are identified at the province level.
- *Sub regions*, called sections, are subdivisions of provinces based on terrain features.

The number after each ecoregion in section 3.2.1 is the number assigned to the ecoregion on the USEPA Level III Ecosystem map. The USEPA Level III Ecosystem, map shown in Figure 3.0 may be found at:

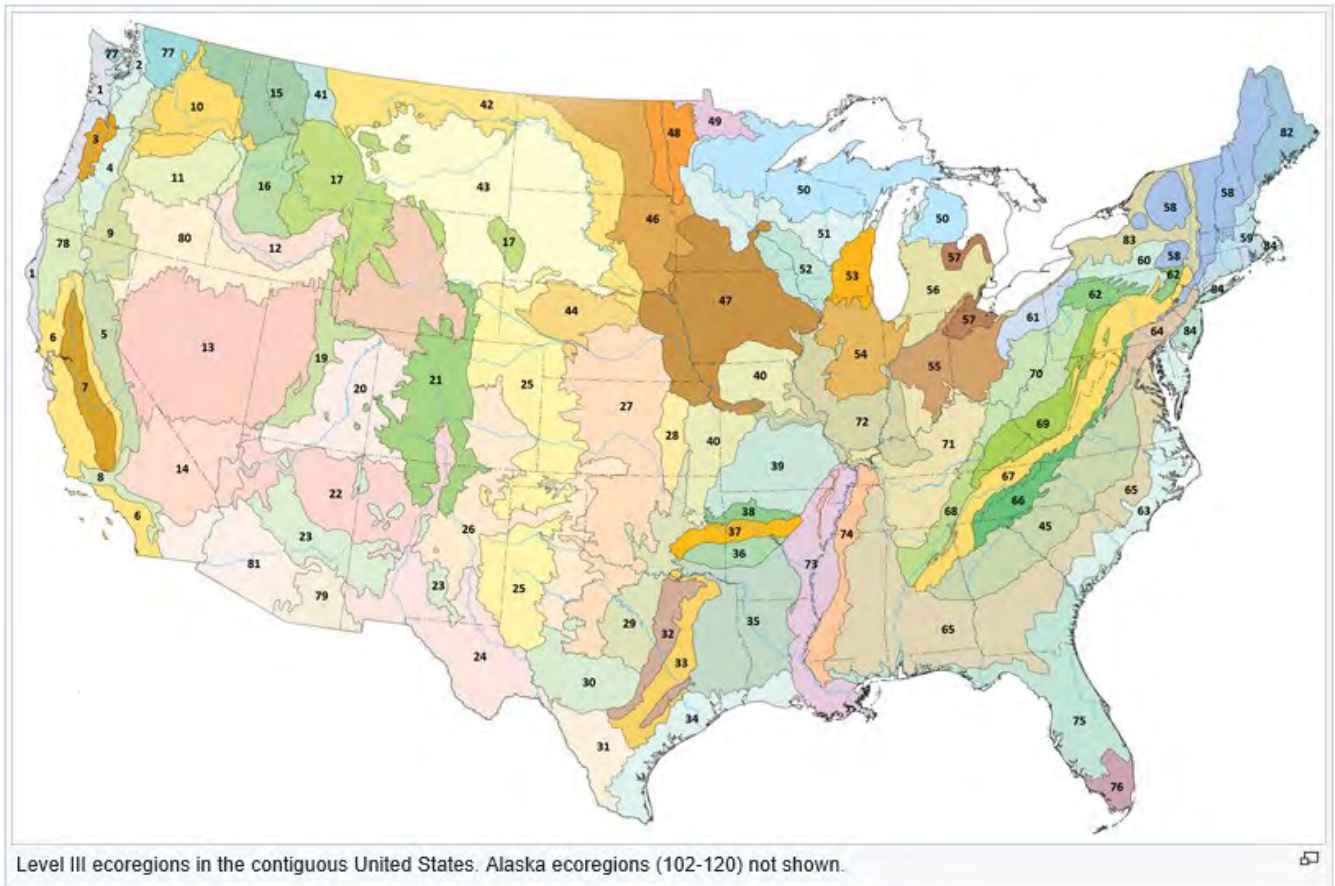
[https://en.wikipedia.org/wiki/List\\_of\\_ecoregions\\_in\\_the\\_United\\_States\\_\(EPA\)](https://en.wikipedia.org/wiki/List_of_ecoregions_in_the_United_States_(EPA)).  
<https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states>

Ecological land classification can help inform natural resource management planning. Identified below are the ecoregions relevant to 88th RD properties and lands in USFWS Interior Region 5/7 as defined in the U.S. Environmental Protection Agency's (EPA) ecosystem Levels I and III ecoregions of the contiguous United States. **Level I** divide North America into 15 broad ecoregions; of these, the 12 listed below lie partly or wholly within the contiguous United States.

Marine West Coast Forest	Western Forested Mountains
Mediterranean California	North American Deserts
Temperate Sierras	Great Plains
Eastern Temperate Forests	Northern Forests
Tropical Wet Forests	Southern Semi-Arid Highlands
Taiga	Tropical and Subtropical Coniferous Forests

**Level III** subdivides the continent into 182 smaller ecoregions; of these, 104 lie partly or wholly with the United States. Section 3.2.1 contains the Level III subdivided ecosystems applicable to the USFWS Interior Region 5/7 sites.

**Figure 3.0** – U.S. EPA ECOREGIONS in the contiguous United States (USEPA, 1997)



**3.2.1.1 Western High Plains (25)**

CO004/08705 (Denver), CO017/08660 (Denver), CO128/08801 (Aurora), and CO130/08827 (Windsor)

Higher and drier than the Central Great Plains to the east, and in contrast to the irregular, mostly grassland or grazing land of the Northwestern Great Plains to the north, much of the Western High Plains comprises smooth to slightly irregular plains having a high percentage of cropland. Grama-buffalo grass is the potential natural vegetation in this region as compared to mostly wheatgrass-needlegrass to the north, Trans-Pecos shrub savanna to the south, and taller grasses to the east. The northern boundary of this ecological region is also the approximate northern limit of winter wheat and sorghum and the southern limit of spring wheat. (USEPA, 1997)

**3.2.1.2 Southwestern Tablelands (26)**

CO147/810123 (Colorado Springs)

Unlike most adjacent Great Plains ecological regions, little of the Southwestern Tablelands (plateaus or mesas) is in cropland. Much of this elevated tableland is in sub humid grassland and semiarid grazing land. The potential natural vegetation in this region is grama-buffalo grass with some

mesquite-buffalo grass in the southeast and shinnery (midgrass prairie with open low and shrubs) along the Canadian River. (USEPA, 1997)

### **3.2.1.3 Central Great Plains (27)**

KS010/20725 (Great Bend), KS029/20785 (Salina), KS037/20825 (Wichita), KS083/20968 (Hays), NE012/3162B (North Platte), and NE013/3162C (North Platte)

The Central Great Plains ecoregion is slightly lower in elevation, receives more precipitation, and is somewhat more irregular than the Western High Plains to the west. Once grassland with scattered low trees and shrubs in the south, much of this ecological region is now cropland. The eastern boundary of the region marks the eastern limits of the major winter wheat growing area of the United States. (USEPA, 1997)

### **3.2.1.4 Central Irregular Plains (40)**

KS013/20735 (Independence), KS014/20769 (New Century ASF), KS015/20747 (Kansas City), KS016/20755 (Lawrence), KS023/20767 (Osage City), KS026/20768 (Parsons), KS027/20780 (Pittsburg), KS031/20790 (Sunflower), KS032/20799 (Topeka), KS068/20407 (New Century), KS085/20967 (Leavenworth), and KS100/20966 (New Century)

This ecoregion has a mix of land use and is topographically more irregular than the Western Corn Belt Plains to the north, where most of the land is in crops. The region, however, is less irregular and less forested than the ecoregions to the south and east. The potential natural vegetation of this ecological region is a grassland/forest mosaic with wide forested strips along the streams. The mix of land use activities in the Central Irregular Plains also includes mining operations of high-sulfur coal. (USEPA, 1997)

### **3.2.1.5 Flint Hills (28)**

KS005/20700 (Emporia), and KS019/20765 (Manhattan)

The Flint Hills is an ecoregion of rolling hills with relatively narrow steep valleys, and is composed of shale and cherty limestone with rocky soils. In contrast to surrounding ecological regions that are mostly in cropland, most of the Flint Hills region is grazed by beef cattle. The Flint Hills marks the western edge of the tallgrass prairie, and contains the largest remaining intact tallgrass prairie in the Great Plains. (USEPA, 1997)

### **3.2.1.6 Middle Rockies (17)**

MT008/30760 (Helena) and MT029/30843 (Butte)

The climate of the Middle Rockies lacks the strong maritime influence of the Northern Rockies. This ecoregion is composed of steep-crested high mountains that are largely covered by coniferous forests. Mountains have Douglas fir (*Pseudotsuga menziesii*), subalpine fir (*Abies lasiocarpa*), and Engelmann spruce (*Picea engelmannii*) forests, and alpine areas. Foothills are partly wooded or shrub- and grass-covered. The valleys situated between the mountain ranges are grass- and/or shrub-covered and contain a mosaic of terrestrial and aquatic fauna that is distinct from the nearby mountains. Many mountain-fed, perennial streams occur and differentiate mountain valleys from the Northwestern Great Plains. Recreation, logging, mining, and summer livestock grazing are common land uses. (USEPA, 1997)

### **3.2.1.7 Northwestern Great Plains (43)**

MT001/30705 (Billings), ND001/38525 (Bismarck), and WY010/5660A (Evansville)

The Northwestern Great Plains ecoregion encompasses the Missouri Plateau section of the Great Plains. It is a semiarid rolling plain of shale and sandstone punctuated by occasional buttes. Native grasslands, largely replaced on level ground by spring wheat and alfalfa, persist in rangeland areas on broken topography. Agriculture is restricted by the erratic precipitation and limited opportunities for irrigation. (USEPA, 1997)

### **3.2.1.8 Western Corn Belt Plains (47)**

NE003/31857 (Fremont), NE010/31895 (Mead), NE011/3162A (Norfolk), NE023/31941 (Lincoln), NE024/31526 (Elkhorn), and SD008/46070 (Sioux Falls)

This ecoregion is a combination of nearly level to gently rolling glaciated till plains and hilly loess plains. Once covered with tallgrass prairie, over 75 percent of the Western Corn Belt Plains is now used for cropland agriculture, and much of the remainder is in forage for livestock. High precipitation levels and fertile, warm, moist soils make this ecoregion one of the most productive areas of corn and soybeans in the world. (USEPA, 1997)

### **3.2.1.9 Lake Agassiz Plain (48)**

ND003/38650 (Grand Forks)

Glacial Lake Agassiz was the last in a series of glacial lakes to fill the Red River Valley in the three million years since the beginning of the Pleistocene. Thick beds of lake sediments on top of glacial till create the extremely flat floor of the Lake Agassiz Plain. The historic tallgrass prairie has been replaced by intensive row crop agriculture. The preferred crops in the northern half of the region are potatoes, beans, sugar beets, and wheat. Soybeans, sugar beets, and corn predominate in the south. (USEPA, 1997)

### **3.2.1.10 Northern Glaciated Plains (46)**

SD001/46555 (Aberdeen)

A flat to gently rolling landscape composed of glacial till characterizes the Northern Glaciated Plains ecoregion. The sub humid conditions foster transitional grassland containing tallgrass and shortgrass prairie. High concentrations of temporary and seasonal wetlands create favorable conditions for waterfowl nesting and migration. Though the till soils are very fertile, agricultural success is subject to annual climatic fluctuations. (USEPA, 1997)

### **3.2.1.11 Central Basin and Range (13)**

UT002/49276 (Salt Lake City), UT003/49655 (Logan), UT007/49676 (Ogden), UT009/49695 (Provo), UT010/49745 (Salt Lake City), and UT032/49850 (Salt Lake City)

The Central Basin and Range ecoregion is internally drained and is characterized by a mosaic of very dry basins, scattered low and high mountains, and salt flats. It has a hotter and drier climate, more shrubland, and more mountain ranges than the Snake River Plain and Northern Basin and Range ecoregions to the north. Basins are covered by Great Basin sagebrush (*Artemisia tridentata*) or saltbush -greasewood vegetation that grows in Aridisols; cool season grasses are less common. The region is not as hot as the Mojave, Sonoran Basin, and Range ecoregion and it has a greater percent of land that is grazed. (USEPA, 1997)

### 3.2.1.12 Mojave Basin and Range (14)

UT107/4991S (St. George)

This ecoregion contains scattered mountains, which are generally lower than those of the Central Basin and Range. Potential natural vegetation in this region is predominantly creosote bush (*Larrea tridentata*), as compared to creosote bush-bursage (*Ambrosia deltoidea*) with large patches of saguaro cactus (*Carnegiea gigantea*) in the Sonoran Basin and Range to the south. Most of this region is federally owned. (USEPA, 1997)

### 3.2.2 State Wildlife Action Plans

In 2001, Congress established the State Wildlife Grant (SWG) Program to support state fish and wildlife agencies in the identification and conservation of species of greatest conservation need. In addition to supporting traditional management of game species, the SWG Program supports conservation of non-game wildlife. The SWG Program supports proactive management designed to prevent species from needing protection under the ESA.

All states in USFWS Interior Region 5/7 have prepared ten-year comprehensive wildlife conservation strategies, commonly known as a Wildlife Action Plan (WAP). State fish and wildlife agencies have developed these strategic plans by working with a broad spectrum of partners to identify actions needed to conserve wildlife in each state. The state WAPs collectively represent a proactive, nationwide effort to prevent wildlife from becoming endangered.

A state WAP describes the distribution and abundance of wildlife, including species with low and declining population numbers, as well as the location and condition of key habitats required to support those species. The WAPs include procedures for routine monitoring, assessment of plan effectiveness, and public participation.

- **Colorado's Comprehensive Wildlife Conservation Strategy**  
(Colorado Division of Wildlife, 2015-2025)  
<https://cpw.state.co.us/aboutus/Pages/StateWildlifeActionPlan.aspx>
- **Kansas State Wildlife Action Plan**  
(Kansas Department of Wildlife, Parks, and Tourism, 2016-2026)  
<https://ksoutdoors.com/Services/Kansas-SWAP>
- **Montana's State Wildlife Action Plan**  
(Montana Fish, Wildlife, & Parks, 2015-2025)  
<http://fwp.mt.gov/fishAndWildlife/conservationInAction/actionPlan.html>
- **Nebraska's Natural Legacy Project**  
(Nebraska Game and Parks Commission, 2011-2021)  
<http://outdoornebraska.ne.gov/wildlife/programs/legacy/review.asp>
- **North Dakota's Comprehensive Wildlife Conservation Strategy**  
(North Dakota Game and Fish Department, 2015-2025)  
<https://gf.nd.gov/wildlife/swap>
- **South Dakota's State Wildlife Action Plan**  
(South Dakota Game, Fish, and Parks, 2015-2025)  
<https://gfp.sd.gov/wildlife-action-plan/>
- **Utah's State Wildlife Action Plan**  
(Utah Division of Wildlife, 2015-2025)  
[http://wildlife.utah.gov/wap/Utah\\_WAP.pdf](http://wildlife.utah.gov/wap/Utah_WAP.pdf)

- **Wyoming's State Wildlife Action Plan**  
(Wyoming Game and Fish Department, 2017-2027)  
<https://wgfd.wyo.gov/Habitat/Habitat-Plans/Wyoming-State-Wildlife-Action-Plan>

This INRMP identifies the habitat types where each 88th RD site lies and the species of conservation concern associated with those habitats. Most 88th RD sites are not large enough to contain native habitat for wildlife populations that warrant implementation of specific WAP actions.



### 3.3 Climate Change Adaptation and Resilience

With the issuance of the DoD 4715.21, *Climate Change Adaptation and Resilience Change 1* (August 31, 2018), the Army is required to assess and manage risks from climate change. The directive provided a high-level formal commitment to integrating consideration of climate change into all aspects of Army activities, including natural resources management and the ability to carry out training in the field environment. With the directive, chain-of-command instruction can be justified and carried through down to the installation level for implementation.

The DoD must be able to adapt current and future operations to address the impacts of climate change in order to maintain an effective and efficient U.S. military. Mission planning and execution must include: identification and assessment of the effects of climate change on the DoD mission; consideration of those effects when developing plans and implementing procedures; and anticipation, prioritization, and management of any risks that develop as a result of climate impacts, in order to build resilience.

The document established Headquarters, Department of Army (HQDA) guidance that implements Department of Defense and Army secretariat policy relating to Integrated Natural Resources Management Plans (INRMPs) that includes managing natural resources with best available science while addressing vulnerabilities, extreme weather events, climate change, and adaptation planning. Natural resources' planning is integrated with other installation planning processes, including but not limited to: the built environment, infrastructure, training area and range management, wildland fire, emergency services, pest management, and cultural resources. (*Guidance for Addressing Climate Resiliency in Integrated Natural Resource Management Plans*, U.S. Army Publication, Headquarters, Department of the Army OACSIM, Installation Services Directorate Environmental Division, 05 March 2018).

The Climate change Risk table (Table 3.1) is the result of research into each of the 88th RD's USFWS Interior Region 5/7 sites potential to be affected by climate change. Each of the sites were subjected to a series of questions provided by the *Guidance for Addressing Climate Resiliency in Integrated Natural Resource Management Plans* to determine if the site would be susceptible to the six criteria put forth in the above referenced documentation. The six criteria are:

- **Coastal Flooding:** Is the site at sea level and therefore at high risk through proximity to the coast?
  - USFWS Interior Region 5/7 sites are located in land locked states and are therefore not exposed to coastal conditions.
- **Riverine Flooding:** Is there a threat to sites located close to, directly adjacent to or within ≤500-year floodplain to rivers?
  - Flooding threats to USFWS Interior Region 5/7 sites will only be an issue for sites located close to or directly adjacent to rivers and at the same elevation. Sites in this region that may be threatened by riverine flooding are noted in the comments column of Table 3.1 Climate Change Risk table.
- **Drought:** Is there a threat to sites through drought or the expectation of limited/diminished water supply to the area?
  - According to the 2014 National Climate Assessment, human use of water is so extensive in the region that it threatens the supply in dry years. Increasing severity and duration of drought events are expected across the Great Plains and Southwest, both of which are part of USFWS Interior Region 5/7. Actions should be taken to reduce water dependence and usage recommended for all sites. Drought already is a consistent threat in these states.

- **Desertification:** Is there a threat to the USFWS Interior Region 5/7 sites, including the area surrounding the sites, through dramatic temporal weather pattern changes that could lead to desertification?
  - Though not a major concern in most of USFWS Interior Region 5/7, Colorado, and Utah potentially may experience increased desertification because of higher temperatures and drier conditions. The 2014 National Climate Assessment found that Colorado and Utah among other states in the U.S. Southwest, though not part of the 88th RD is projected to have higher temperatures and lower annual precipitation to the point that desertification is likely to occur. The desertification would most likely be limited to already very arid areas of those states, in sagebrush-type habitat, a result of consistent lack of precipitation to the point it begins to become a desert. The rest of the states are all projected to have increased periods of drought, though not necessarily due to less total annual precipitation but due to more extreme precipitation events, some of those being in winter. It is drought due to changes in precipitation timing rather than less overall annual precipitation.
- **Wildfires:** Is the site located in an area that may be subject to wildfire?
  - USFWS Interior Region 5/7 sites are in fully developed areas that would fall within municipal fire department support. Main impact from wildfires would be negative smoke related health effects. Sites should be maintained to minimize combustible fuel near main structures.
- **Thawing Permafrost:** Is the site constructed upon permafrost that could be subject to degrading to such an extent as to cause structural/site subsidence or failure?
  - There is no permafrost located within any of the USFWS Interior Region 5/7 sites.

Table 3.1 Climate Change Risk Table

REGION 5/7	Coastal Flooding		Riverine Flooding		Drought		Desertification		Wildfires		Thawing Permafrost		Comments
	Current	Potential	Current	Potential	Current	Potential	Current	Potential	Current	Potential	Current	Potential	
CO004/08705	N	N	N	N	N	Y	N	Y	N	N	N	N	
CO017/08660	N	N	N	N	N	Y	N	Y	N	N	N	N	
CO129/08801	N	N	N	N	N	Y	N	Y	N	N	N	N	
CO130/08827	N	N	N	N	N	Y	N	Y	N	N	N	N	
CO147/810123	N	N	N	N	N	Y	N	Y	N	N	N	N	
K8005/20700	N	N	N	N	N	Y	N	N	N	N	N	N	
K8010/20725	N	N	N	Y	N	Y	N	N	N	N	N	N	All or part of the site is within the 500 year floodplain
K8013/20735	N	N	N	N	N	Y	N	N	N	N	N	N	
K8014/20769	N	N	N	N	N	Y	N	N	N	N	N	N	
K8015/20747	N	N	N	N	N	Y	N	N	N	N	N	N	
K8016/20795	N	N	N	N	N	Y	N	N	N	N	N	N	
K8019/20765	N	N	N	Y	N	Y	N	N	N	N	N	N	All or part of the site is within the 500 year floodplain
K8023/20767	N	N	N	N	N	Y	N	N	N	N	N	N	
K8026/20768	N	N	N	Y	N	Y	N	N	N	N	N	N	Adjacent to Regulatory Floodway
K8027/20780	N	N	Y	Y	N	Y	N	N	N	N	N	N	Adjacent to Regulatory Floodway
K8029/20785	N	N	N	N	N	Y	N	N	N	N	N	N	
K8031/20709	N	N	Y	Y	N	Y	N	N	N	Y	N	N	Regulatory Floodway passes through east side of site
K8032/20799	N	N	N	N	N	Y	N	N	N	N	N	N	
K8037/20825	N	N	N	N	N	Y	N	N	N	N	N	N	
K8068/20407	N	N	N	N	N	Y	N	N	N	N	N	N	
K8083/20968	N	N	N	N	N	Y	N	N	N	N	N	N	
K8085/20967	N	N	N	N	N	Y	N	N	N	N	N	N	
KS100/20965	N	N	N	N	N	Y	N	N	N	N	N	N	
KS104/20936	N	N	N	N	N	Y	N	N	N	N	N	N	
KS105/20499	N	N	N	N	N	Y	N	N	N	N	N	N	
MT001/30705	N	N	N	N	N	Y	N	N	N	N	N	N	
MT008/37060	N	N	N	N	N	Y	N	N	N	N	N	N	
MT029/30843	N	N	N	N	N	Y	N	N	N	N	N	N	
NE003/31857	N	N	N	Y	N	Y	N	N	N	N	N	N	All or part of the site is within the 500 year floodplain
NE010/31895	N	N	N	N	N	Y	N	N	N	N	N	N	
NE011/3162A	N	N	N	N	N	N	N	N	N	N	N	N	
NE023/31941	N	N	N	N	N	Y	N	N	N	N	N	N	
SD001/46555	N	N	N	N	N	Y	N	N	N	N	N	N	
SD008/46070	N	N	N	N	N	Y	N	N	N	N	N	N	
UT002/49276	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT003/49655	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT007/49676	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT009/49695	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT010/49745	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT019/49844	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT030/49855	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT032/49850	N	N	N	N	Y	Y	N	Y	N	N	N	N	
UT107/49918	N	N	N	N	Y	Y	N	Y	N	N	N	N	
WYD10/5660A	N	N	N	N	N	Y	N	N	N	N	N	N	

Floodway = the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

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## Planning Level Surveys

Baseline Planning Level Surveys (PLS, a/k/a Natural Resource Surveys (NRS)) have been completed for all 88th RD sites in USFWS Interior Region 5/7. For this update, high, and medium resource NRSs include on-site surveys that assess and evaluate: water resources, wetlands, woodlands, wildlife, and plant surveys. Low resource sites were reviewed via desktop survey which included a review of relevant federal, state, and local environmental databases (as available) in the categories previously listed.

Natural Resource Surveys information (e.g., survey date, type of survey, etc.) is presented in Table 3.2. These surveys provide a foundation for effective planning and decision-making. The AR 200-1 recommends NRS are updated on a five-year cycle when conditions at the site change to the degree that a re-evaluation of the site is warranted. All the sites will be evaluated at the end of the five-year cycle on a case-by-case basis to determine if a full update is warranted, and in the case of the medium and high resource sites, whether a site visit is necessary.

Table 3.3 presents an overview of natural resources found on 88th RD properties and lands as identified in the most recent Natural Resource Surveys. Natural resource information for high and medium resource sites presented in Sections 3.5 - 3.12 is derived from current Natural Resource Surveys. Low resource site information may be found in Attachment B.

**Table 3.2 Natural Resource Survey Summary**

FACID / Site Code	Site Name	Most Recent Survey (Year)	Desktop Survey	Physical Water Resource Survey	Wetland Survey	Woodland Survey	Wildlife Survey	Plant Survey	Next Planned Update (Year)
<b>COLORADO</b>									
CO004 08705	Elmer E. Fryar ARC, Denver CO	2018	X						2023
CO017 08660	Joe P. Martinez ARC/AMSA, Denver CO	2018		X	X		X	X	2023
CO128 08801	William T. Fitzsimons ARC, Aurora CO	2018	X						2023
CO130 08827	Windsor ARC, Windsor CO	2018		X			X	X	2023
CO147 810123	Colorado Springs ARC, Colorado Springs CO	2018		X			X	X	2023
<b>KANSAS</b>									
KS005 20700	Emporia ARC, Emporia KS	2018	X						2023
KS010 20725	Ralph B. Praeger ARC, Great Bend KS	2018	X						2023
KS013 20735	Independence ARC, Independence KS	2018	X						2023
KS014 20769	New Century ARC/ASF #37, New Century KS	2018	X						2023
KS015 20747	Trembly White ARC, Kansas City KS	2018	X						2023
KS016 20755	Lawrence ARC, Lawrence KS	2018	X						2023
KS019 20765	Manhattan ARC, Manhattan KS	2018	X						2023
KS023 20767	Osage City ARC, Osage City KS	2018	X						2023
KS026 20768	SSG David Benner ARC / BMA #38, Parsons KS	2019	X						2024

**Table 3.2 Survey Summary (continued)**

<b>FACID / Site Code</b>	<b>Site Name</b>	<b>Most Recent Survey (Year)</b>	<b>Desktop Survey</b>	<b>Physical Water Resource Survey</b>	<b>Wetland Survey</b>	<b>Woodland Survey</b>	<b>Wildlife Survey</b>	<b>Plant Survey</b>	<b>Next Planned Update (Year)</b>
KS027 20780	Pittsburg ARC, Pittsburg KS	2019	X						2024
KS029 20785	Salina ARC, Salina KS	2019	X						2024
KS031 20790	Sunflower LTA, Desoto KS	2018		X	X	X	X	X	2023
KS032 20799	Topeka ARC, Topeka KS	2019	X						2024
KS037 20825	L. J. Wallace ARC/AMSA #38, Wichita KS	2019	X						2024
KS068 20407	New Century Land, New Century KS	2019	X						2024
KS083 20968	1SG Robert L. Kuhn ARC, Hays KS	2019	X						2024
KS085 20967	Leavenworth ARC, Leavenworth KS	2019	X						2024
KS100 20966	New Century ARC/AMSA #57, New Century KS	2019	X						2024
KS104 20936	Dodge City ARC, Dodge City KS	2019	X						2024
KS105 20499	Tonganoxie ARC, Tonganoxie KS	2020	X						2025
<b>MONTANA</b>									
MT001 30705	Roysdon Hall ARC, Billings MT	2019	X						2024
MT008 30760	Ft. Wm. Henry Harrison AMSA 75 (G), Helena MT	2019	X						2024
MT029 30843	Butte ARC, Butte MT	2019	X						2024
<b>NEBRASKA</b>									
NE003 31857	GEN J.C. Fremont ARC, Fremont NE	2019	X						2024
NE010 31895	Mead LTA, Mead NE	2018		X	X	X	X	X	2023
NE011 3162A	Norfolk ARC, Norfolk NE	2019	X						2024
NE012 3162B	North Platte ARC, North Platte NE	2019	X						2024
NE013 3162C	North Platte AMSA #36, North Platte NE	2019	X						2024
NE023 31941	Gen John J Pershing ARC, Lincoln NE	2019	X						2024
<b>NORTH DAKOTA</b>									
ND001 38525	Lewis and Clark ARC/AMSA #108, Bismarck, ND	2019	X						2024
ND003 38650	Elton W. Ringsak ARC, Grand Forks SD	2019	X						2024
<b>SOUTH DAKOTA</b>									
SD001 46555	Charles J. Milbrandt AFRC, Aberdeen SD	2019	X						2024

**Table 3.2 Survey Summary (continued)**

<b>FACID / Site Code</b>	<b>Site Name</b>	<b>Most Recent Survey (Year)</b>	<b>Desktop Survey</b>	<b>Physical Water Resource Survey</b>	<b>Wetland Survey</b>	<b>Woodland Survey</b>	<b>Wildlife Survey</b>	<b>Plant Survey</b>	<b>Next Planned Update (Year)*</b>
SD008 46070	MSG Woodrow Wilson Keeble AFRC, Sioux Falls SD	2019	X						2024
<b>UTAH</b>									
UT002 49276	Fort Stephen A. Douglas Reserve Complex, Salt Lake City UT	2018		X	X		X	X	2023
UT003 49655	Ray D. Jenkins ARC, Logan UT	2018		X	X		X	X	2023
UT007 49676	Frank M. Browning ARC, Ogden UT	2018		X	X		X	X	2023
UT009 49695	Dale Rex Hall ARC, Provo UT	2019	X						2024
UT010 49745	Moore Hall ARC, Salt Lake City UT	2019	X						2024
UT032 49850	Kenichi Uchida ARC, Salt Lake City UT	2019	X						2024
UT107 4991S	St. George ARC, St. George UT	2019	X						2024
<b>WYOMING</b>									
WY010 5660A	Antelope Flats ARC, Evansville WY	2019	X						2024

**Table 3.3 Natural Resources Overview**

X = Natural resource is present or has potential to exist within site boundary  
 O = Natural resource is present or has the potential to exist within 1,000 feet of the site

FACID / Site Code	Site Name	Ecoregion	Wetlands	Surface Waters	Flood-plains	Listed Species*	Species at Risk	Suitable Habitat	Forests	Invasive Species
CO004 08705	Elmer E. Fryar ARC, Denver CO	High Plains	O			O				
CO017 08660	Joe P. Martinez ARC/AMSA, Denver CO	High Plains	X O			X O		X O		X
CO128 08801	William T. Fitzsimons ARC, Aurora CO	High Plains		X O						X
CO130 08827	Windsor ARC, Windsor CO	High Plains	X O							
CO147 810123	Colorado Springs ARC, Colorado Springs CO	Southwestern Tablelands				X O		X O		
KS005 20700	Emporia ARC, Emporia KS	Flint Hills		X						
KS010 20725	Ralph B. Praeger ARC, Great Bend KS	Central Great Plains			X					
KS013 20735	Independence ARC, Independence KS	Central Irregular Plains		X O						
KS014 20769	New Century ARC/ASF #37, New Century KS	Central Irregular Plains								
KS015 20747	Trembly White ARC, Kansas City KS	Central Irregular Plains								X
KS016 20755	Lawrence ARC, Lawrence KS	Central Irregular Plains		X						
KS019 20765	Manhattan ARC, Manhattan KS	Flint Hills								
KS023 20767	Osage City ARC (LL), Osage City KS	Central Irregular Plains		X O						
KS026 20768	SSGT David Benner (LL), Parsons KS	Central Irregular Plains			X O					
KS027 20780	Pittsburg ARC (LL), Pittsburg KS	Central Irregular Plains		X O	X O					X
KS029 20785	Salina ARC, Salina KS	Central Great Plains			X O					
KS031 20790	Sunflower LTA, Desoto KS	Central Irregular Plains		X O				X	X	X



**Table 3.3 Natural Resources Overview (continued)**

FACID / Site Code	Site Name	Ecoregion	Wetlands	Surface Waters	Flood-plains	Listed Species	Species at Risk	Suitable Habitat	Forests	Invasive Species
KS032 20799	Topeka ARC, Topeka KS	Central Irregular Plains	O	O						X
KS037 20825	Lanny J Wallace ARC/AMSA #38, Wichita KS	Central Great Plains		X						
KS068 20407	New Century Land, New Century KS	Central Irregular Plains	O	O						X
KS083 20968	1SG Robert L. Kuhn ARC, Hays KS	Central Great Plains		O	X O					
KS085 20967	Leavenworth ARC, Leavenworth KS	Central Irregular Plains		X O						X
KS100 20966	New Century ARC/AMSA #57, New Century KS	Central Irregular Plains		O						
KS104 20936	Dodge City ARC, Dodge City KS	Central Great Plains								
KS105 20499	Tonganoxie ARC (new Fac. NRSRVY scheduled for 2021), Tonganoxie KS	Leavenworth								X
MT001 30705	Roysdon Hall ARC, Billings MT	Northwestern Great Plains				O				
MT008 30760	Ft. Wm. Henry Harrison AMSA 75 (G), Helena MT	Middle Rockies		O		O				X
MT029 30843	Butte ARC, Butte MT	Middle Rockies								X
NE003 31857	Gen J.C. Fremont ARC, Fremont NE	Western Corn Belt Plains			X O	O				
NE010 31895	Mead LTA, Mead NE	Western Corn Belt Plains	X O	X O		O		X	X	X
NE011 3162A	Norfolk ARC (CL), Norfolk NE	Western Corn Belt Plains				O				
NE012 3162B	North Platte ARC (CL), North Platte NE	Central Great Plains				O		X		
NE013 3162C	North Platte AMSA #36 (CL), North Platte NE	Central Great Plains		O		O		X		
NE023 31941	Gen John J Pershing ARC, Lincoln NE	Western Corn Belt Plains	O	O		O				
ND001 38525	Lewis and Clark ARC/AMSA #108, Bismarck, ND	Northwestern Glaciated Plains	O							
ND003 38650	Elton W. Ringsak ARC, Grand Forks SD	Lake Agassiz Plain			X O					

**Table 3.3 Natural Resources Overview (continued)**

<b>FACID / Site Code</b>	<b>Site Name</b>	<b>Ecoregion</b>	<b>Wetlands</b>	<b>Surface Waters</b>	<b>Flood-plains</b>	<b>Listed Species</b>	<b>Species at Risk</b>	<b>Suitable Habitat</b>	<b>Forests</b>	<b>Invasive Species</b>
SD001 46555	Charles J. Milbrandt AFRC, Aberdeen SD	Northern Glaciated Plains	O		O					
SD008 46070	MSG Woodrow Wilson Keeble AFRC, Sioux Falls SD	Western Corn Belt Plains								X
UT002 49276	Fort Stephen A. Douglas Reserve Complex, Salt Lake City UT	Central Basin and Range		O	O	O				X
UT003 49655	Ray D. Jenkins ARC, Logan UT	Central Basin and Range				O				X
UT007 49676	Frank M. Browning ARC/LTA, Ogden UT	Central Basin and Range	O							
UT009 49695	Dale Rex Hall ARC, Provo UT	Central Basin and Range	O	O	O					
UT010 49745	Moore Hall ARC, Salt Lake City UT	Central Basin and Range	O							
UT032 49850	Kenichi Uchida ARC, Salt Lake City UT	Central Basin and Range	O	O						
UT107 4991S	St. George ARC (CL), St. George UT	Mojave Basin and Range		X		O				
WY010 5660A	Antelope Flats ARC (CL), Evansville WY	Northwestern Great Plains	O							

X = Natural resource is present or has potential to exist within site boundary  
O = Natural resource is present or has the potential to exist within 1,000 feet of the site  
(LL) = Land Lease  
(CL) = Commercial Lease  
\* Listed Species includes both state and federally listed species

## 3.4 High, Medium, and Low Resource Sites

Using planning level survey data and management planning for resources, the 88th RD has established criteria for categorizing its sites as having high, medium, or low significance in terms of natural resources. Categorizing the sites in this way enables managers to identify actions that are common to all sites and actions that are specific to sites with particular natural resource considerations.

High resource sites are periodically evaluated through general and specialized field surveys and are those that contain substantial undeveloped habitat and/or generally have greater opportunities for natural resources management, requiring substantive allocation of resources (manpower and funding). Additional criteria which indicate a high resource site include the presence of a jurisdictional wetland, forests, threatened and endangered species, Army SAR, significant surface waters, or cultural resources with natural resource considerations (e.g., trees that are contributing elements to an eligible historic site or district).

Medium resource sites are periodically evaluated through generalized field surveys only and are those identified as having limited natural resources (more diverse than those identified in the low resource sites) or may have previously been identified as high resource sites but upon closer evaluation the locations lack species diversity; and or may have a small (< 1 acre) wetland/water feature that may be within the USACE's jurisdiction; or may have high species diversity and no wetlands. Instead of expending resources on sending a scientific crew for both the Natural Resource Survey Updates (NRS) update and a wetland delineation update, at this level the wetland delineation update will be incorporated into the periodic NRS Updates.

Low resource sites are periodically evaluated through desk top surveys and are identified as those lacking substantive natural resources and consist primarily of improved grounds (e.g., buildings, paved parking areas, and landscaping) or semi-improved grounds (e.g., mowed grass). Although natural habitat and wildlife diversity typically are lacking, certain management activities are still needed at low resource sites.

### 3.4.1 High Resource Sites

Sites identified as high resource sites are listed below, most of these sites are local training areas (LTAs) that tend to be larger (acreage) sites. In the sections that follow, geographic location and size, geological resources (physiography and geology, soils, topography), water resources (watershed and surface waters, floodplains), biological resources (land cover and ecological communities, vegetation communities, wetlands, wildlife, listed species, and special interest areas) is provided for each high resource site. High resource site profiles begin in Section 3.6.

- Joe P. Martinez ARC/AMSA (CO017/08660)
- Windsor ARC (CO130/08827)
- Sunflower LTA (KS031/20790)
- Mead LTA (NE010/31895)
- Fort Stephen A. Douglas Reserve Complex (UT002/49276)

\* In the 2015-2020 USFWS Interior Region 5/7 INRMP the Ray G. Jenkins ARC (UT003/49655) was identified as a high resource site. Upon review of the 2018 natural resource survey update it was determined that this site no longer fits the high resource criteria and has been re-classified as a low resource site.

### 3.4.2 Medium Resource Sites

Sites identified as medium resource sites are listed as follows, these locations may have high species diversity or other feature that would benefit from a site visit, and/or may have low functioning jurisdictional wetlands. In the sections that follow, geographic location and size, geological resources (physiography and geology, soils, topography), water resources (watershed and surface waters, floodplains), biological resources (land cover and ecological communities, vegetation communities,

wetlands, wildlife, listed species, and special interest areas) is provided for each medium resource site. Medium resource site profiles begin in Section 3.6.

- Colorado Springs ARC (CO147/810123)

### 3.4.3 Low Resource Sites

Sites identified as low resource sites are listed below. A profile for each low resource site is provided in Appendix B.

- Elmer E. Fryar ARC (CO004/08705)
- William T. Fitzsimons ARC (CO128/08801)
- Emporia ARC (KS005/20700)
- Ralph B. Praeger ARC (KS010/20725)
- Independence ARC (KS013/20735)
- New Century ARC/ASF #37 (KS014/20769)
- Trembly White ARC (KS015/20747)
- Lawrence ARC (KS016/20755)
- Manhattan ARC (KS019/20765)
- Osage City ARC (KS023/20767)
- SSGT David Benner ARC (KS026/20768)
- Pittsburg ARC (KS027/20780)
- Salina ARC (KS029/20785)
- Topeka ARC (KS032/20799)
- Lanny J. Wallace ARC/AMSA #38 (KS037/20825)
- New Century Land (KS068/20407)
- 1SG Robert L. Kuhn ARC (KS083/20968)
- Leavenworth ARC (KS085/20967)
- New Century ARC/AMSA #57 (KS100/20966)
- Dodge City ARC (KS104/20936)
- Tonganoxie ARC (KS105/ 20499)
- Roysdon Hall ARC (MT001/30705)
- Ft. Wm. Henry Harrison AMSA 75 (G) (MT008/30760)
- Butte ARC (MT029/30843)
- GEN J.C. Fremont ARC (NE003/31857)
- Norfolk ARC (NE011/3162A)
- North Platte ARC (NE012/3162B)
- North Platte AMSA #36 (NE013/3162C)
- Gen John J. Pershing ARC (NE023/31941)
- Lewis and Clark ARC/AMSA #108 (ND001/38525)
- Elton W. Ringsak ARC (ND003/38650)
- Charles J. Milbrandt AFRC (SD001/46555)
- MSG Woodrow Wilson Keeble AFRC (SD008/46070)
- Ray G. Jenkins ARC (UT003/49655)\*
- Frank M. Browning ARC (UT007/49676)
- Dale Rex Hall ARC (UT009/49695)
- Moore Hall ARC (UT010/49745)
- Kenichi Uchida ARC (UT032/49850)
- St. George ARC (UT107/4991S)
- Antelope Flats ARC (WY010/5660A)

### 3.5 Joe P. Martinez ARC/AMSA (CO017/08660) - High Resource

12211 E 56th Ave.,  
Denver CO 80239-5301

**County:** Adams

**Acres:** 20.36

**Building count:** 3

**Last Field Survey:** 2018



The Joe P. Martinez ARC/AMSA 100 consists of two (2) ARC buildings, one (1) Maintenance Shop (OMS), one (1) covered vehicle maintenance port, and associated parking areas. The site is used for administrative services, light vehicle maintenance, and classroom training. The 88th RD owns the buildings and land that comprise CO017.

#### 3.5.1 Geographic Location and Size

CO017 is located in the city of Denver, population as of 2017 is 704,621, in Adams County, Colorado. The location of the site within Colorado is shown on Figure 2.1. Acreage for the site as reported in the 2018 Real Property Survey lists the site size as 20.36 acres. East 56th Avenue borders the site to the south and south of East 56th Avenue is a developed residential area. The Rocky Mountain Arsenal National Wildlife Refuge (RMANWR) surrounds the site to the north, east, and west. The site boundary is shown on Figure 3.1. CO017 is bordered to the north, east, and west by the RMANWR.

The site is located on land that was formerly part of the U.S. Army Rocky Mountain Arsenal, was once a chemical weapons and pesticide development site. Due to soil and groundwater contamination from these activities, the U.S. Environmental Protection Agency (USEPA) designated the U.S. Army Rocky Mountain Arsenal as a National Priorities List (NPL) site, and subsequently designated much of the former Arsenal site as a National Wildlife Refuge (Rocky Mountain Arsenal National Wildlife Refuge (RMANWR)).

#### 3.5.2 Geological Resources

##### Physiography and Geology

The site is located within the Colorado Piedmont (Great Plains) physiographic province. Tertiary sedimentary rocks eroded by the action of the South Platte and Arkansas rivers characterize this province (CGS, 2013). Geological formations underlying CO017 are gravel and alluvium formations. Bedrock and groundwater are located greater than 60 inches and greater than 72 inches below ground level, respectively (NRCS, 2018).

##### Soils

Mapped soils within the site boundary are Truckton sandy loams, 1 to 3 percent slopes (NRCS, 2018). The soils within and immediately adjacent to the site boundaries are shown on the Soils Map attached. Soils surrounding the site include Blakeland-Truckton association and Truckton sandy loam, 3 to 9 percent slopes.

##### Topography

Topography within and surrounding the site is relatively flat, ranging from 5,275 to 5,290 feet above mean sea level (amsl). The lowest point appears to be within the manmade retention basin where the elevation drops sharply.

### 3.5.3 Water Resources

#### Watershed and Surface Waters

CO017 occurs within the Middle South Platte-Cherry Creek watershed, located in the eastern region of Colorado.

National Hydrography Dataset data indicates that no surface waters are located within CO017 (NHD, 2018). There is one (1) palustrine rock bottom storm water retention pond that is intermittently flooded (PRB2J). The retention pond is 0.39 acres in size and is located in the north central part of the site. At the time of survey, the pond held approximately 8 inches of water. The banks of the pond have approximately 25% slope and are covered in coarse gravel to prevent erosion. The banks are sparsely vegetated but cottonwood saplings are growing through the rock, this situation has the potential to weaken coarse gravels erosion prevention effectiveness therefore BOP would be to remove the saplings.

No other water resources were observed or have been previously documented on-site or within 1,000 feet of the site.

#### Wetlands

There are no National Wetland Inventory (NWI) wetlands located within CO017 site boundaries (USFWS, 2018). The field survey identified one wetland.

The delineation of wetland 1 indicated that it is a seasonally flooded palustrine wetland forested with broadleaf deciduous vegetation (PFO1E). Wetland 1 is located in the northeast corner of the site. The wetland covers 0.15 acres and is bisected by an unpaved access road. A buried culvert allows the two sides to remain hydrologically connected. The water source for this wetland appears to be storm water runoff from the surrounding paved surfaces. AEM Group concurred with wetland surveys from 2010 that the area was a forested wetland. The Denver Regulatory Office considers wetland 1 non-jurisdictional. The Denver City Wetland ordinances should be reviewed prior to any modifications to Wetland 1. As of 2018, Denver does not have additional protections for Wetland 1. The wetland plant community has multiple layers of vegetation.

The canopy layer is populated by:

- narrowleaf cottonwood (*Populus angustifolia*)
- Siberian elm (*Ulmus pumila*)
- Russian-olive (*Elaeagnus angustifolia*)

The shrub layer is dominated by:

- sandbar willow (*Salix exigua*).

#### Floodplains

No floodplains are located on or within 1,000 feet of the site (FEMA, 2018). There are three open water areas located approximately 750 to 1,200 feet northwest of the site.

### 3.5.4 Cultural Resources

The 2015-2019 ICRMP indicates that currently there are no cultural resource agreement documents in place for this site. Prior to any ground disturbing activities, consult the most current ICRMP for procedures and SOPs compliant with Section 106 of the NHPA. A Phase 1 Archaeological Survey was completed for the facility in 2017 and one archaeological site and one linear resource was identified as ineligible for the NRHP. No other archaeological resources were identified within the property and the SHPO provided concurrence in 2018 with clearing these properties for archaeological resources.

The 2015 – 2019 ICRMP for sites located in Colorado will be furnished upon request, or may be found on the P-drive at: P:\DPW\EnvironmentalArchive\EnvironmentalPrograms\CulturalResources

\ICRMPs\CO\2015-2019 CO ICRMP Update. The 2021-2025 ICRMP Update is currently in development.

### 3.5.5 Biological Resources

#### Land Cover and Ecological Communities

The site is comprised of seven major land cover types.

Land Cover and Ecological Communities	Area (Acres)	Percent of Site
Buildings	1.03	5.06
Paved Road/Parking	10.50	51.57
Unpaved Road/Parking	4.50	22.10
Maintained Lawn	2.40	11.79
Disturbed Ground	1.60	7.86
Wetlands	0.15	0.74
Storm water Detention pond	0.18	0.88
Total	20.36	100

<sup>(1)</sup> Area calculations based on CO017 Land Cover Map.

#### Vegetation Communities

The CO017 site survey was conducted on September 10, 2018.

Maintained Lawn communities were primarily:

- Kentucky bluegrass (*Poa pratensis*)
- redstem filaree (*Erodium cicutarium*)
- white clover (*Trifolium repens*)

The redstem filaree that was observed on the site is designated as a “List C” species in the Colorado Noxious Weed Act (CDA, 2018a).

The trees within the maintained lawn are sparse and include scattered individuals of:

- Norway maple (*Acer platanoides*)
- silver maple (*Acer saccharinum*)
- eastern cottonwood (*Populus deltoides*)
- chokecherry (*Prunus virginiana*)

The disturbed ground community was dominated by:

- Downy brome (*Bromus tectorum*)

Other observed species:

- smooth brome (*Bromus inermis*)
- common lambsquarters (*Chenopodium album*)
- wavyleaf thistle (*Cirsium undulatum*)
- field bindweed (*Convolvulus arvensis*)
- curly dock (*Rumex crispus*)
- russian thistle (*Salsola kali*)
- common mullein (*Verbascum thapsus*)

## Invasive Species

Russian olive (*Elaeagnus angustifolia*) is designated as a “List B” species in the Colorado Noxious Weed Act. It is required to be eradicated, contained, or suppressed depending on the level of infestation (CDA, 2018a). Russian olive (*Elaeagnus angustifolia*) is presently contained within the wetland area, with low numbers observed.

Designated as “List C” species in the Colorado Noxious Weed Act:

- downy brome (*Bromus tectorum*)
- field bindweed (*Convolvulus arvensis*)
- common mullein (*Verbascum thapsus*)

## Wildlife

Wildlife observed during the field survey included:

- killdeer (*Charadrius vociferous*)
- mourning doves (*Zenaida macroura*)
- house sparrows (*Passer domesticus*)
- American gold finch (*Spinus tristis*)
- black-tailed prairie dogs (BTPD) (*Cynomys ludovicianus*)

Due to CO017’s vicinity to RMANWR, wide varieties of species are found within the 1,000-foot buffer around the site. However, only small species and birds would have access to the property as the entire perimeter of the site is chain-linked fenced that is buried three feet below the ground surface however, that has not deterred the BTPD from colonizing the lawn that surrounds the buildings.

As the majority of the site is disturbed or otherwise, developed, common wildlife species that readily adapt to developed and disturbed areas would most likely be the ones to utilize on-site habitats. Wetland 1 offers potential habitat for a number of species including amphibians, reptiles, and small mammals. Enough water to support waterfowl is not generally present. No notable species were observed during the site survey.

## Listed Species

The Natural Resource Survey updates process includes investigation into the potential for presence or absence of local, state, federal threatened and endangered species along with Army Species at Risk (SAR) is fully evaluated and researched. Threatened and Endangered species presence or absence was established through the 2018 site visit and the USFWS’s iPac system.

**No plant or wildlife listed species or SAR were observed onsite during the 2018 NR survey site visit or have the potential to be located within the site’s property limits due to lack of habitat.**

The completed 2018 Natural Resource Survey for this site provides a full list (as of the date of publication) of the known species that are identified on the local, state, federal and Army SAR lists with the potential to be located on the site. The 2018 Natural Resource Survey will be provided upon request or may be found on the P-drive at: (P:\DPW\Site Archive\CO017 Denver Martinez\Environmental\CO017 Land Resources\CO017 NR Surveys\CO017 Martinez ARC, 2018)

## Sensitive Species

The **black-tailed prairie dog** (*Cynomys ludovicianus*) is listed in Colorado as a species of special concern, which is not a statutory categorical listing. The state special concern listing does not afford the black-tailed prairie dog any legal protections in Colorado. Black-tailed prairie dogs were observed in the lawn areas of the site during the field survey. The active prairie dog colony was observed to extend around the entire site and extend far to the north and west into RMANWR.

The **black-footed ferret** (*Mustela nigripes*) is a federal and state listed endangered species in Colorado. Habitat for this species includes grasslands or shrub lands in the eastern plains, mountain parks, and western valleys that support some species of prairie dog, the ferret’s primary prey. There are historical records of black-footed ferrets occurring within 1,000 feet of the site. However, the last



official record of black-footed ferret occurring in Colorado was in 1943 and re-introduced populations into the Rocky Mountain Arsenal National Wildlife Refuge (RMANWR) have not shown a great deal of expansion to other areas (URS, 2013).

Potentially suitable habitat for the black-footed ferret is present within 1,000 feet of the site, specifically the refuge area to the east, north, and west of the property boundary. As of 2009, the US Fish and Wildlife service has block-cleared all black-tailed prairie dog habitat in eastern Colorado after determining that these areas no longer contain any wild free-ranging black-footed ferrets but in 2015 the ferrets were reintroduced to the abutting Refuge. Based on this reintroduction and the presence of prairie dogs on the site, the ferret may eventually access the site as the population grows.

No species from the Army SARs list were present at the site during the survey.

### 3.5.6 Outdoor Recreation, Public Access, and Agricultural Outleasing

There does not appear to be any opportunities for outdoor recreation, public access, or agricultural out-leasing on this site area. The site area lacks aesthetic natural communities, hunting or fishing areas, or the area to perform crop agriculture. (AEM, 2018a)

### 3.5.7 Management Issues and Concerns

**Black-tailed Prairie dogs (BTPD)** – If 88th RD is considering methods to control black-tailed prairie dog populations on the site, should be thoroughly vetted before implementing. Plague is naturally occurring in the United States and particularly in Colorado (CDC, Plague fact sheet). Fleas, common among the BTPD populations, transmit the plague bacterium (*Yersinia pestis*) that can infect humans and their pets.

In June 2018, the U.S. Department of Agriculture (USDA) wildlife division treated the site. In early 2019, plans were in the development process to treat the BTPD town on the site for fleas to limit the potential for plague transmission. Since that time, the individuals spearheading the effort are no longer associated with this site and the plans have been put on hold.

Based on the proximity of the site to RMANWR, it is unlikely that any extermination practice will be a permanent solution, as neighboring BTPD will expand into the area. Since the BTPD is a species of special concern, consultation with Colorado Parks and Wildlife (CPW) to determine the best method of managing BTPD especially because the black-footed ferret have been reintroduced in the abutting Refuge. Chemical control methods are not recommended due to potential risk to non-target species. The black-tailed prairie dogs are a species of high ecological importance, are a keystone species for the survival of burrowing owls and black - footed ferrets, and are on the menu for many other mammal and avian species.

**Black-footed ferret** – is a state of Colorado endangered species. Currently, this species has no presence at this site, its favorite food is BTPD. The ferrets and BTPD share habitat preferences/requirements. Black-footed ferrets have had no documented naturally occurring presence in Colorado since 1943. Re-introduced populations over the year's surveys show reintroduction efforts can be successful with plague management. In 2015, ferrets were introduced to the adjacent Refuge, with limited success, however the potential for the ferrets to hunt BTPD on the site remains a possibility. Therefore, as stated in the BTPD paragraph, if methods to control/eradicate the BTPD from the site are employed it should be a method that would protect non-target species.

#### **Invasive Species**

**Russian olive** - The on-site forested wetland contains Russian olive and it is recommended that Russian olive be eradicated from the wetland vegetation community. Early eradication can lead to better containment of invasive species and reduce herbicide application costs.

## **Sediment and Erosion**

Sediment from parking lot run-off collects in the on-site forested wetland. Instituting best management practices could minimize or avoid impacts to on-site and off-site wetlands and surface waters. Redirecting sediment laden storm water runoff to designed collection ponds where possible and the placement of straw bales could be installed at wetland storm water inlets to prevent further sedimentation of the wetland. Bare ground areas could be planted with native seed mix to reduce erosion potential. It is recommended that bare ground and disturbed field areas be reseeded with a native seed mix that may require less regular maintenance, be more drought resistant, have a more intricate root system to hold onto the soil and be able to withstand the sudden high intensity and short duration storms that are prevalent in the area that facilitates erosion.

It is recommended that listed species surveys focus on the black-footed ferret, plant species, migratory birds, and eagles. Migratory bird species have the highest likelihood of occurring within or immediately surrounding the site. The wetlands on, and surrounding, the site offer food, water, and shelter.

### **3.5.8 Special Interest Areas**

RMANWR abuts the north, east, and west sides of the site. RMANWR is 15,000 acres of expansive prairie, wetland, and woodland habitat. RMANWR is home to more than 330 species of animals including bison (which are fenced and not free roaming), burrowing owls, black-footed ferrets (reintroduced in 2015 not near the site boundaries), deer, coyotes, and bald eagles. Because this site supports threatened and endangered species, some species that use RMANWR may reach the CO017 site due to proximity.



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### 3.6 Windsor ARC (CO130/08827)

#### High Resource

6505 Alader Drive  
Windsor, CO 80550

**County:** Larimer

**Area:** 18.39

**Building Count:** 3

**Last Field Survey:** 2018



The Windsor ARC (FACID CO130, Site Code 08827) consists of two (2) buildings: a training/administrative office and a vehicle maintenance site. In addition, the site has two large parking lots and an unpaved storage area. The construction of the site was finished in 2015. These buildings and parking areas were not present during the 2013 natural resources survey (NRS). The buildings and the land are owned by the 88th RD.

#### 3.6.1 Geographic Location and Size

CO130 is located southeast of Windsor, Colorado. The location of the site within Colorado is shown on Figure 3.2. Acreage for the site in the Real Property Detail Report lists the site as 18.39 acres. The property immediately surrounding the site to the north, east, south, and west was primarily composed of agricultural fields. A business park is located approximately 275 feet from the southern property boundary of the site and residential buildings are located approximately 660 feet northeast of the site. Larimer County fairgrounds are located approximately 730 feet to the west of the site. The site boundary is shown on Figure 3.2.

#### 3.6.2 Geological Resources

##### Physiography and Geology

The site is located within the Colorado Piedmont (Great Plains) physiographic province. Tertiary sedimentary rocks that have been eroded by the action of the South Platte and Arkansas rivers (CGS, 2018) characterize this province. Geological formations underlying CO130 are mixed alluvium and eolian deposits. Both bedrock and groundwater are generally located greater than 72 inches below ground level.

##### Soils

The soil types within the site boundaries include: Kim loam, 5 to 9 percent slopes; Kim-Thedalund, 3 to 15 percent slopes; Larim gravelly sandy loam, 5 to 40 percent slopes; Renohill clay loam, 3 to 9 percent slopes, and; Wiley silt loam, 1 to 3 percent slopes.

##### Topography

Topography within and surrounding the site is relatively flat with some sloping to the south. The area ranges from 4,980 to 5,030 feet above sea level.

#### 3.6.3 Water Resources

##### Watershed and Surface Waters

*Streams* - CO130 occurs within the Cache La Poudre watershed, HUC 10190007. This watershed is located in the north central region of Colorado. The NHD reports that an intermittent stream with an unconsolidated bed (R4UB) originates within the southeast corner of CO130 and flows to the northeast, outside of the site boundary (NHD, 2018)

The field survey confirmed the existence of the R4UB stream as well as a palustrine emergent (PEM) wetland at the stream origin. There was major construction and landscaping around the stream offsite to the east. Some silt fences were observed but the stream and wetland areas below the construction

were being impacted with sediment. At the time of the field survey, the wetland area onsite at the head of the stream was not being impacted by construction. The area should be closely observed to ensure that no erosion issues result from the lack of vegetation. The emergent wetland that once continued beyond the property has now been demolished. This stream continues to parallel the southeast side of CO130 and then passes under Highland Meadows Parkway via a concrete culvert. The stream is a tributary of the Cache La Poudre River.

### **Floodplains**

There was no Federal Emergency Management Agency Flood Insurance Rate Map for the site or within 1,000 feet of the property boundary.

### **Detention Basins**

There is one 0.13- acre storm water detention basin located immediately behind the training building. There was no water observed in the detention basin at the time of the field survey. Some of the natural fiber matting on the south side of the basin has been disturbed by erosion and should be repaired.

### **Wetlands**

NWI data indicated that no wetlands are located within CO130 (USFWS, 2018). However, during the field survey two (2) wetlands were observed on the site.

**Wetland 1** is 0.04 acres located within the vegetated depression located in the erosional rill on the western side of the earthen berm. USACE routine wetland determinations were performed, and this area contained not only all three wetland indicators, but also wetland obligate vegetation (cattails). This wetland was determined to be a semi permanently flooded palustrine emergent wetland (PEM1F). Hydrology appears to be driven by drainage from the surrounding area that collects in this low lying depression and is present long enough to create hydric soils which supports the growth of hydrophytic vegetation. Wetland 1 does not appear to have a hydrologic connection to the La Poudre River and **is likely not considered jurisdictional by the US Army Corp of Engineers (USACE)**. However, **local and state wetland rules may protect this wetland** and state and local consultation should be made prior to impacting this wetland.

This entire wetland contains hairy willow-herb (*Epilobium hirsutum*) which is on "List A" of Colorado Noxious Weeds list (effective March 31, 2017), which is required to be eradicated immediately (CDA, 2018b).

**Wetland 2** is a 0.12 acre, semi permanently flooded palustrine emergent wetland (PEM1F) located in the southeast corner of the site which parallels the southeast side of CO130. The wetland continues off-site. The wetland area off-site has been impacted by construction and is no longer intact. A buried concrete culvert southwest of the wetland appears to supply a small but steady source of hydrology. The water source was not apparent at the time of the site visit. The wetland is hydrologically connected to the Cache La Poudre River via the R4UB stream, which is located within the 1,000-foot buffer of CO130. The location of the wetland can be seen on the CO130 Wetland Map. This **wetland is hydrologically connected to the La Poudre River and will likely be considered jurisdictional by the USACE**. The USACE and state and local authorities should be consulted prior to impact.

### **3.6.4 Cultural Resources**

The 2015-2019 ICRMP reports “. . . prior to the USAR’s acquisition of the land; no cultural resources were identified within or near the proposed site of CO130/Windsor ARC (Gantt and Zier 2011). SHPO concurred with the finding of no effect on historic resources on April 4, 2011.”

The 2015 – 2019 ICRMP for sites located in Colorado will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\CO\2015-2019 CO ICRMP Update. The 2021-2025 ICRMP Update is currently in development.

Prior to any ground disturbing activities the most current ICRMP should be consulted to follow SOPs and for compliance with the NHPA.

### 3.6.5 Biological Resources

#### Land Cover and Ecological Communities

The site is composed of six (6) land cover types. The table below displays the percent cover of these land cover types. The Land Cover Map displays the locations of each land cover.

Building and parking lot areas are not described in vegetation communities as they do not have any plant communities.

Land Cover and Ecological Communities	Calculated Area <sup>(1)</sup>	Percent of Site
	Acres	
Buildings	0.92	5.0
Pavement/Parking	3.82	20.8
Detention basin	0.13	0.7
Wetlands	0.16	0.9
Xeric Landscaping	1.4	7.6
Prairie	11.98	65.0
Total	18.39	100

<sup>(1)</sup> Area calculations based on Land Cover Map.

#### Vegetation Communities

The CO130 site survey was conducted on September 11, 2018. The prairie community located behind the building and parking lots consisted of an herbaceous layer that included:

- kochia (*Bassia scoparia*)
- smooth brome (*Bromus inermis*)
- rye brome (*Bromus secalinus*)
- downy brome (*Bromus tectorum*)
- wavyleaf thistle (*Cirsium undulatum*)
- purple mustard (*Chorispora tenella*)
- western tansy mustard (*Descurainia pinnata*)
- prickly lettuce (*Lactuca serriola*)
- Kentucky bluegrass (*Poa pratensis*)
- curly dock (*Rumex crispus*)
- Russian thistle (*Salsola iberica*)

Downy brome (*Bromus tectorum*) is designated as a "List C" species in the Colorado Noxious Weed Act. Colorado Department of Agriculture does not require that List C species be managed.

Wetland areas of the site included sandbar willow (*Salix exigua*), cottonwood trees (*Populus deltoides*), and hairy willow-herb (*Epilobium hirsutum*). Hairy willow-herb is designated as a "List A" species in the Colorado Noxious Weed Act. It is required to be eradicated wherever found in the state.

#### Wildlife

Species observed during the site visit

- red-tailed hawk (*Buteo jamaicensis*)
- lesser nighthawk (*Chordeiles acutipennis*)
- barn swallows (*Hirundo rustica*)
- yellow warblers (*Setophaga petechia*)

Off site, in the construction area to the south, black-tailed prairie dogs (*Cynomys ludovicianus*) were observed. Black-tailed prairie dogs can offer habitat for burrowing owls (*Athene cunicularia*) and

the black-footed ferret (*Mustela nigripes*), however; based on the steep decline of both the black-footed ferret and burrowing owl populations throughout CO those species presence on the prairie dog colony is unlikely.

### Listed Species

The Natural Resource Survey updates process includes investigation into the potential for presence or absence of local, state, federal threatened and endangered species along with Army Species at Risk (SAR) is fully evaluated and researched. Threatened and Endangered species presence or absence was established through the 2018 site visit and the USFWS's iPac system.

**No plant or wildlife listed species or Army SAR were observed onsite during the 2018 NR survey site visit or have the potential to be located within the site's property limits due to lack of habitat.**

The completed 2018 Natural Resource Survey for this site provides a full list (as of the date of publication) of the known species that are identified on the local, state, federal and Army SAR lists with the potential to be located on the site. The 2018 Natural Resource Survey will be provided upon request or may be found on the P-drive at: (P:\DPW\Site Archive\CO130 Windsor\Environmental\CO130 Land Resources\CO130 NR Surveys\CO130 Windsor ARC, 2018)

### Sensitive Species

Four (4) species of concern are likely to occur within 1,000 feet of CO130. These species include:

- Dwarf milkweed (*Asclepias uncialis ssp. uncialis*)
- Whooping crane (*Grus americana*)
- Black-necked stilt (*Himantopus mexicanus*)
- Colorado watercress (*Rorippa coloradensis*)

Most bird species are protected under the Migratory Bird Treaty Act (16 USC 703). Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) receive additional protection under the Bald and Golden Eagle Protection Act (16 USC 668). Changes to site operations should include studies for migratory bird use and potential impacts. Use of the site by migratory birds; however, is expected to be limited due to its small acreage. Eagles or eagle nests were not observed during the survey.

No suitable or potentially suitable habitat was found on the site that would result in any of the listed species or other sensitive species occurring at this site. No species at risk from the Army SARs list are present at sites in Colorado.

### 3.6.6 Outdoor Recreation, Public Access, and Agricultural Outleasing

There does not appear to be any opportunities for outdoor recreation, public access, or agricultural out-leasing on this site area. The site area lacks aesthetic natural communities, hunting or fishing areas, or the area to perform crop agriculture. (AEM, 2018b)

### 3.6.7 Management Issues and Concerns

During the 2018 field survey it was noted that the entire area of Wetland 1 (approx. 0.04 acres or approx. 1,742 square feet) has been overrun by hairy willow-herb (*Epilobium hirsutum*) which is on "List A" of Colorado Noxious Weeds list (effective March 31, 2017), and is required to be eradicated immediately (CDA, 2018b). The state of Colorado Department of Agriculture hairy willow herb website reference found in the References section of this report includes management and guidance for control/eradication.

During the 2018 field survey, it was noted that some of the natural fiber matting on the south side of the 0.13- acre storm water detention basin located immediately behind the training building has been disturbed by erosion and should be repaired.



### **3.6.8 Special Interest Areas**

No special interest areas are located on or within 1,000 feet of CO130.

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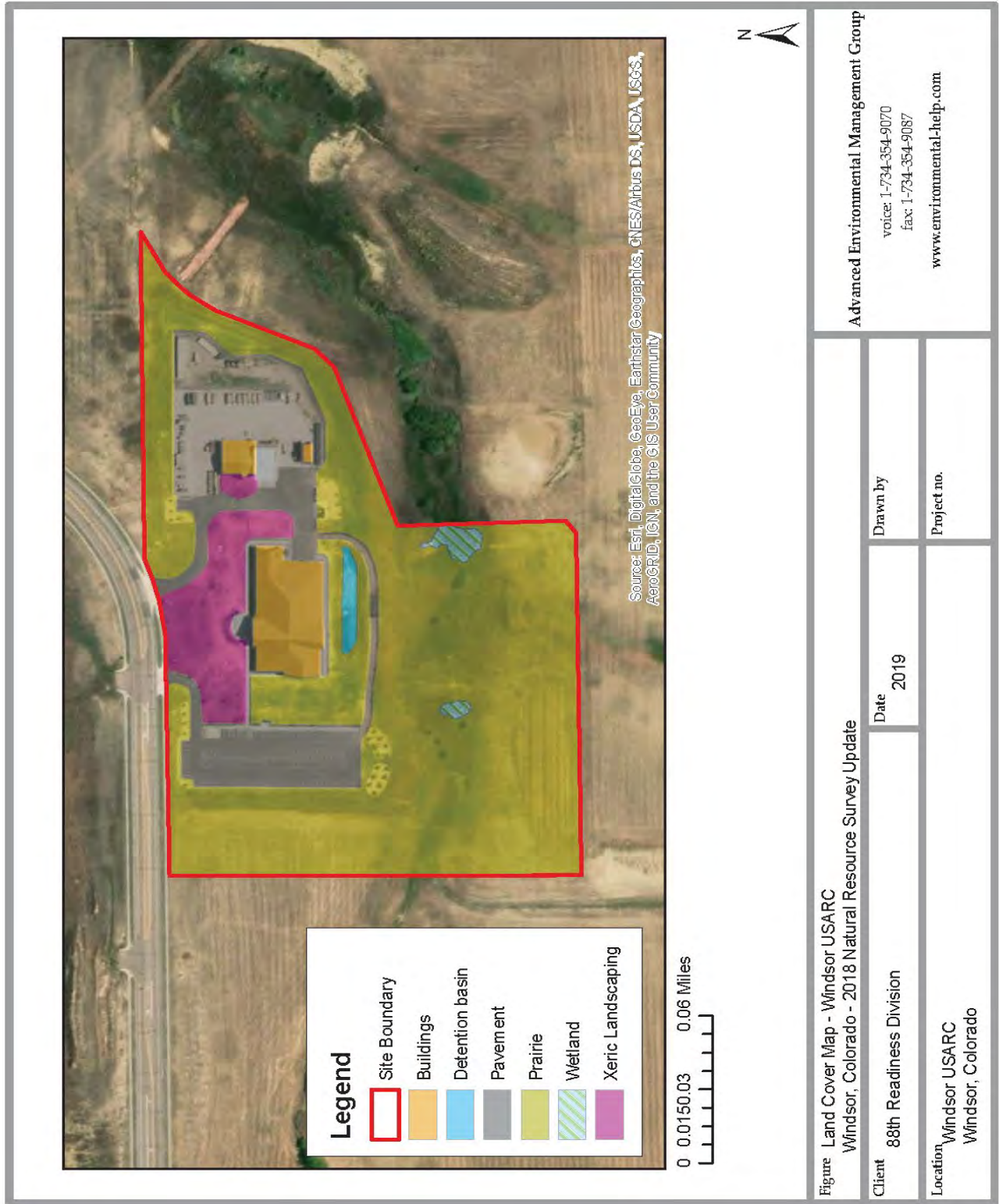


Figure 3.2 Site Map – CO130/08827

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### 3.7 Colorado Springs ARC (CO147/810123) Medium Resource

195 Foreign Trade Zone Blvd.  
Colorado Springs CO 80925-1201

**County:** El Paso

**Acres:** 15.00

**Building Count:** 2

**Last Field Survey:** 2018



The Colorado Springs ARC (FACID CO147, Site Code 810123) consists of one ARC training building, an OMS, and associated parking areas. The site is used for administrative purposes, light vehicle maintenance, and classroom training. The 88th RD owns the two buildings and land that comprise CO147.

#### 3.7.1 Geographic Location and Size

CO147 is located in the city of Colorado Springs, population 426,388, in El Paso County, Colorado. The Real Property Detail Report lists the site size as 15.00 acres. The area surrounding CO147 is primarily disturbed shortgrass prairie. The site boundary is shown on Figure 3.4.

#### 3.7.2 Geological Resources

##### Physiography and Geology

CO147 is located within the Colorado Piedmont (Great Plains) physiographic province. Tertiary sedimentary rocks that have been eroded by the action of the South Platte and Arkansas rivers characterize this province. Geologic formations underlying CO147 consist of clayey alluvium. Bedrock and groundwater are located at 31 inches and greater than 72 inches below ground level, respectively.

##### Soils

Mapped soils within the CO147 boundary belong to the Razor-Midway complex (NRCS, 2018). Other soils in the 1,000 feet surrounding CO147 include Ascalon sandy loam, 1 to 3 percent slopes and Manzanola clay loam, 1 to 3 percent slopes.

##### Topography

Topography within and surrounding CO147 is relatively flat, ranging from 5,870 to 5,910 feet above sea level.

#### 3.7.3 Water Resources

##### Watershed and Surface Waters

CO147 occurs within the Fountain watershed, located in the eastern region of Colorado.

The Natural Hydrography Dataset (NHD) indicates that no surface waters are located within the site boundary (NHD, 2018). However, during the survey an intermittently-flooded palustrine constructed detention pond with an unconsolidated bottom (PUB3J) was identified in the south end of the site. The detention pond is 0.9 acres in size and catches storm water runoff from the site's impervious surfaces. The 18-foot deep pond has approximately 30% slope banks that are primarily bare ground. At the time of survey, there was no water in the basin.

No other Water Resources were observed or have been previously documented on-site or within 1,000 feet of the site.

## Wetlands

NWI data indicates that no wetlands are located on-site or within 1,000 feet of CO147 (USFWS, 2018). During the 2018 field survey, no wetlands were observed on-site.

## Floodplains

No floodplains are located on or within 1,000 feet of the site (FEMA, 2018).

### 3.7.4 Cultural Resources

The 2015-2019 ICRMP reports that "... prior to USAR's acquisition of the land; no cultural resources were identified within or near the proposed site of CO147/Colorado Springs ARC (Anderson 2009). CO SHPO concurred with the finding of no effect on historic resources on July 6, 2009."

The 2015 – 2019 ICRMP for sites located in Colorado will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\CO\2015-2019 CO ICRMP Update. The 2021-2025 ICRMP Update is currently in development.

Prior to any ground disturbing activities, the most current ICRMP should be consulted to follow SOPs and for compliance with the NHPA.

### 3.7.5 Biological Resources

#### Land Cover and Ecological Communities

The site is comprised of five major land cover types.

Land Cover and Ecological Communities	Area (Acres)	Percent of Site
Buildings	1.0	6.7
Detention Pond	0.90	6.0
Paved Road/Parking	4.47	29.8
Prairie	8.36	57.5
<b>Total</b>	<b>15.00</b>	<b>100</b>

#### Vegetation Communities

The CO147 field survey was conducted on September 11, 2018.

The prairie vegetation community primarily consists of:

- smooth brome (*Bromus inermis*)
- perennial ryegrass (*Lolium perenne*)
- western wheatgrass (*Pascopyrum smithii*)
- blue grama (*Bouteloua gracilis*)
- buffalograss (*Bouteloua dactyloides*)
- tall fescue (*Schedonorus arundinaceus*)

The site was very dry and had large amounts of erosion around the culverts throughout the property. The erosion was worst at the culverts surrounding the detention basin. It appears that rock has been placed in rills and around culverts to mitigate erosion, but more rock needs to be placed.

The vegetation community surrounding the site is comprised of shortgrass prairie, dominated by:

- Great Plains yucca (*Yucca glauca*)
- prickly pear cactus (*Opuntia polyacantha*)
- blue grama (*Bouteloua gracilis*)
- buffalo grass (*Bouteloua dactyloides*)

The shrub layer consists of:

- scattered big sagebrush (*Artemisia tridentata*)

## Wildlife

During the field survey, no wildlife species besides birds were observed foraging on the site. No burrows or signs of wildlife use were observed during the site visit. In the 2013 field, survey black-tailed prairie dogs (*Cynomys ludovicianus*) were observed.

Potential habitat on-the site is limited due to the predominantly bare or sparsely vegetated ground cover. This ground cover does provide potentially suitable habitat for black-tailed prairie dog. There are no records of the prairie dog colonies within 1,000 ft. but this area may not be cataloged.

Migratory birds and bald and golden eagles may use this site. Two species of birds: a sage thrasher (*Oreoscoptes montanus*) and a mourning dove (*Zenaida macroura*), were observed during the field survey. Towards the end of the survey, the winds picked up and may have prevented additional observations.

Most species of birds are protected under the Migratory Bird Treaty Act (16 USC 703). Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) receive additional protection under the Bald and Golden Eagle Protection Act (16 USC 668). If the site plans to change uses or practices for the site, studies should be completed to ensure there will be no impact to eagles, or populations of migratory bird species. Use of the site by migratory birds; however, is expected to be limited due to its small acreage. Eagles or eagle nests were not observed during the survey.

## Invasive Species

No invasive species were observed within CO147.

No species designated in the Colorado Noxious Weed Act were observed on-site.

## Listed Species

The Natural Resource Survey updates process includes investigation into the potential for presence or absence of local, state, federal threatened and endangered species along with Army Species at Risk (SAR) is fully evaluated and researched. Threatened and Endangered species presence or absence was established through the 2018 site visit and the USFWS's iPac system.

**No plant or wildlife listed species or SAR were observed onsite during the 2018 NR survey or has the potential to be located within the site's property limits due to lack of habitat.**

The completed 2018 Natural Resource Survey for this site provides a full list (as of the date of publication) of the known species that are identified on the local, state, federal and Army SAR lists with the potential to be located on the site. (AEM, 2018a) The 2018 Natural Resource Survey will be provided upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Land Resources - ARCHIVE\NR Surveys\FY18 NR Surveys\Final Reports\CO147 Colorado Springs ARC.

## Sensitive Species

Black-tailed prairie dog (*Cynomys ludovicianus*) is listed in Colorado as a species of special concern, which is not a statutory categorical listing. The state special concern listing does not

afford the black-tailed prairie dog (*Cynomys ludovicianus*) any legal protections. No prairie dogs were observed or any identifiable abandoned burrows during the 2018 visit.

No other state listed species or other species of concern were observed on-site during the 2013 site survey.

### **3.7.6 Outdoor Recreation, Public Access, and Agricultural Outleasing**

There does not appear to be any opportunities for outdoor recreation, public access, or agricultural out-leasing on this site area. The site area lacks aesthetic natural communities, hunting or fishing areas, or the area to perform crop agriculture.

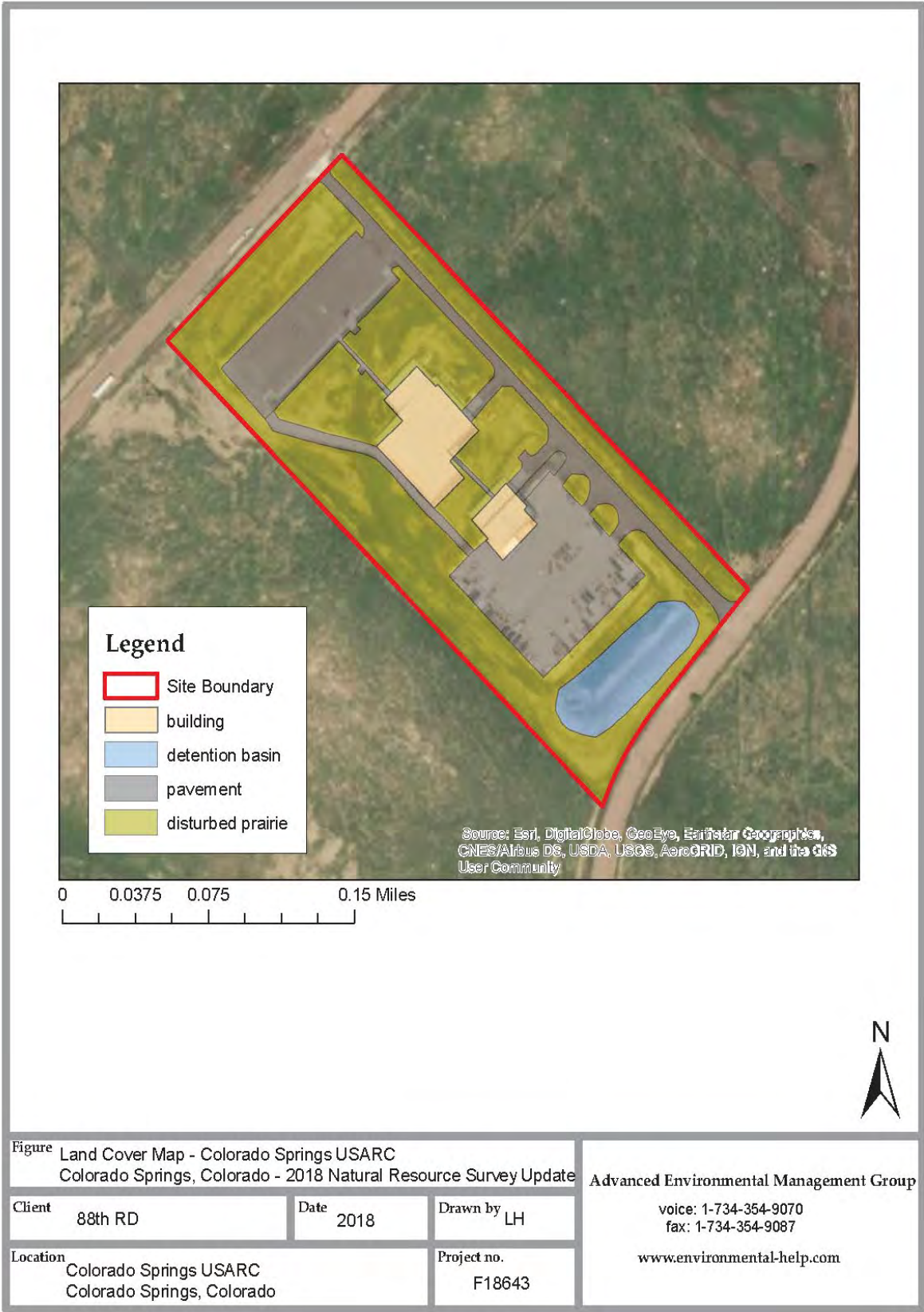
### **3.7.7 Management Issues and Concerns**

Much of the onsite land cover consists of very dry short-grass prairie which are susceptible to erosion and there is a concern about eroding soils and erosion control. Rock has been placed in some rills and erosion areas around culverts but these areas are in need of additional erosion control measures. It is recommended that erosion control BMPs on the site be regularly maintained and replaced as the erosion control measures are damaged or washed away.

### **3.7.8 Special Interest Areas**

No special interest areas are located on or within 1,000 feet of CO147.





**Figure 3.4 Site Map – CO147/810123**

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### 3.8 Sunflower LTA (KS031/20790) High Resource

#### Sunflower Army Ammo Plant

Desoto KS 66016-6019

**County:** Johnson

**Acres:** 77.12

**Building Count:** 0

**Last Field Survey:** 2018



The Sunflower Local Training area (LTA) (FACID KS031, Site Code 20709) consists of open prairie to the west and forested area to the east that is bisected north-south by a stream. The site is used for outdoor field training. No buildings or structures exist on the site. The 88th Readiness Division (RD) owns the land that comprises the Sunflower LTA.

#### 3.8.1 Geographic Location and Size

KS031 is located near the city of Desoto, in Johnson County, Kansas. The acreage of the site as reported in the 88th RD master geodatabase is 77.12 acres. The surrounding land includes undeveloped forests to the north and southeast, with agricultural land to the east, west, and south. There is one adjacent residence along the western boundary near the southwest corner.

#### 3.8.2 Geological Resources

##### Physiography and Geology

This site is located within the Osage Plains section of the Central lowlands physiographic province (Fenneman and Johnson, 1946). The Osage Plains physiographic region is an area of roughly 6,700 mi<sup>2</sup>, characterized by underlain soft shale with interbedded sandstones and limestone, with rolling hills creating the topography. The geologic formations at the site are of Mississippian to Pennsylvanian age (Adamski et al.1995).This section is the southernmost of three tallgrass prairie physiographic areas.

##### Soils

United States Department of Agriculture Natural Resources Conservation Services (USDA-NRCS) online web soil survey, the site is composed of 21.6% percent Chase silt loam, occasionally flooded; 18.3% Kennebec silt loam, occasionally flooded; 3.2% Reading silt loam, rarely flooded; 27.7% Morrill loam, 3 to 7 percent slopes; 18.5% Pawnee clay loam, 4 to 8 percent slopes, eroded; 8.6% Vinland-Rock outcrop complex, 15 to 45 percent slopes; and 2.3% Woodson silt loam, 1 to 3 percent slopes. In Johnson County, Kansas Chase silt loam, Kennebec silt loam, Reading silt loam, and Pawnee clay loam have a potential to have minor hydric components. No hydric soil indicators were found during the site visit.

##### Topography

The site has a gently rolling topography, ranging from 835 to 875 feet amsl.

#### 3.8.3 Water Resources

##### Watershed and Surface Waters

Sunflower LTA is located within the Lower Kansas watershed (NRCS, 2006).

Captain Creek is a perennial stream that enters the site from the south after passing under the road bridge. At the time of the 2019 field survey, the creek was at high flow during the site visit as a result of recent flooding. The bottom substrate is cobble with some silt, offering some habitat for

macroinvertebrates. The average width of the creek was 15 ft. and the depth ranged from 6 inches to 2.5 ft.; the ordinary high-water mark (OHWM) was at 2.5 ft. Several runs, pools, and riffles are present along the creek within the site boundaries. Kick net surveys of aquatic macroinvertebrates were conducted at three different locations within the creek. During the surveys, a number of macroinvertebrates were observed; however, the stream had limited biodiversity, which is an indicator of poor water quality.

Additionally, the 2018 field survey identified two unnamed tributaries to Captain Creek. Macro-invertebrate surveys were conducted in the tributaries, one tributary had low macro-invert biodiversity that indicates poor water quality, and the other had greater macro-invert species diversity which indicates that the stream appears to have less impaired water quality.

Stream Data Table				
Stream Name	Average width (ft.)	Average depth(in.)	OHWM (ft.)	Area (acres)
Captain Creek	15.0	2.5 - 78	2.5	0.86*
Un-named Creek 1	4.0	2 - 8	N/A	N/A
Un-named Creek 2	4.0	2	N/A	N/A

\* Total for all creeks (Captain and the 2 unnamed creeks)

### Wetlands

No wetlands identified on the site during the natural resources survey.

Additional off-site wetlands within 1000 ft. of the site are limited to a small lake, Roberts Lake (PABFh) and a 0.17-acre freshwater emergent wetland (PEM1Ch), to the southeast (NWI, 2019).

### Floodplains

Floodplain mapping for this site is based on digital Q3 Flood data produced by FEMA. Based on the FEMA mapping area that covers this site (FEMA Map 20091C0071G & 20091C0072G) there is a floodplain on the site that is located along Captain Creek as well as one that follows along the unnamed tributary that enters the property from the west. The flood plain is roughly 1,700 ft. wide at the southern boundary and tapers down to 500 ft. at the northern boundary of the property.

### 3.8.4 Cultural Resources

The 2014-2018 ICRMP reports; "A cultural resources survey has been completed for this site. A single archaeological site (14JO00124) was found, evaluated, and determined to be ineligible for the NRHP. Tribal consultation on the survey was completed in 2003 and 2004. No additional archaeological investigations are required for the KS031/Sunflower WET [LTA] Site. There are no buildings on this training site and the single structure recorded during survey, a circa 1916 steel truss bridge, is not on USAR property."

The 2014 – 2018 ICRMP for sites located in Kansas will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\KS\KS ICRMP Update 2014-2018. A 2019-2024 ICRMP has been updated and is currently in the reviews stage with State and Tribal agencies.

Prior to any ground disturbing activities the most current ICRMP should be consulted to follow SOPs and for compliance with the NHPA.

### 3.8.5 Biological Resources

#### Land Cover and Ecological Communities

The site is comprised of three major land cover types.

Land Cover and Ecological Communities	Calculated Area <sup>(1)</sup>	Percent of Site
	Acres	
Grassland/Field	47.61	63.73
Upland Deciduous Forest	27.94	36.23
Streams	1.57	2.04
Total	77.12	100

#### Vegetation Communities

During the site visit AEM Group personnel observed many different vegetation species in the grassland community as well as in the forest community. Species observed are frequent and prevalent in their respective communities and AAA are presented in Flora Species Table. Grassland occupies most of the site with the forest to the east, along the southern boundary, and a small patch along the western boundary.

During the 2018 field survey invasive species observed in the grassland area included Johnson grass (*Sorghum halepense*) and smooth brome (*Bromus inermis*). Johnson grass is on the Kansas Noxious Weed list and requires treatment; smooth brome is not a Kansas Noxious Weed. Garlic mustard (*Alliaria petiolata*) was present in the forest community onsite. The garlic mustard could be a serious threat to the vegetative community due to its rapid spread and its ability to out compete native plants, but there are no requirements to manage this species.

Flora Species		
Common Name	Scientific Name	Location
Common Milkweed	<i>Asclepias syriaca</i>	Grassland
*Smooth brome	<i>Bromus inermis</i>	Grassland
Antelope horns milkweeds	<i>Asclepias (viridis and asperula)</i>	Grassland
Quack grass	<i>Elymus repens</i>	Grassland
Yarrow	<i>Achillea millefolium</i>	Grassland
Dogbane	<i>Apocynum cannabinum</i>	Grassland
Honey locust	<i>Gleditsia triacanthos</i>	Grassland
Red cedar	<i>Juniperus virginiana</i>	Grassland
Black walnut	<i>Juglans nigra</i>	Grassland
*Johnson grass	<i>Sorghum halepense</i>	Grassland
Stinging nettle	<i>Urtica dioica</i>	Forest
Black berry	<i>Rubus fruticosus</i>	Forest
River bank wild rye	<i>Elymus riparius</i>	Forest
Coral berry	<i>Symphoricarpos orbiculatus</i>	Forest
Gooseberry	<i>Ribes uva-crispa</i>	Forest
Rough leaf dogwood	<i>Cornus drummondii</i>	Forest
Greenbrier	<i>Smilax rotundifolia</i>	Forest
River grape	<i>Vitis riparia</i>	Forest
Bladder pod	<i>Cleome isomeris</i>	Forest
Poison Ivy	<i>Toxicodendron radicans</i>	Forest
Pawpaw	<i>Asimina triloba</i>	Forest
American Elm	<i>Ulmus americana</i>	Forest

Flora Species		
Common Name	Scientific Name	Location
American Sycamore	<i>Platanus occidentalis</i>	Forest
Cottonwood	<i>Populus deltoides</i>	Forest
Silver maple	<i>Acer saccharinum</i>	Forest
Hackberry	<i>Celtis occidentalis</i>	Forest
Black walnut	<i>Juglans nigra</i>	Forest
May apple	<i>Podophyllum peltatum</i>	Forest
Woodland phlox	<i>Phlox divaricata</i>	Forest
*Garlic mustard	<i>Alliaria petiolata</i>	Forest
Virginia creeper	<i>Parthenocissus quinquefolia</i>	Forest
Multiflora rose	<i>Rosa multiflora</i>	Forest
Bur oak	<i>Quercus macrocarpa</i>	Forest
Chinkapin oak	<i>Quercus muehlenbergii</i>	Forest
White oak	<i>Quercus alba</i>	Forest
Northern red oak	<i>Quercus rubra</i>	Forest
Bitternut hickory	<i>Carya cordiformis</i>	Forest

\* Invasive species

## Wildlife

Bird Surveys conducted on the site used a five-minute interval point bird count in the mornings of 22-23May2019. Count stations were positioned where food, water, and habitat sources were present. These survey areas included the grassland field and the forest. Multiple bird species were observed during the surveys; these species are listed in the Bird Survey Data Table.

During the site visit, various terrestrial and aquatic fauna were observed at the site or adjacent to it; these species are presented in Fauna Data Table.

Bird Survey Data				
Survey site	Common Name	Scientific Name	Number	Location
Bird 1	Red-eyed vireo	<i>Vireo olivaceus</i>	1	Grassland field
	Red-winged blackbird	<i>Agelaius phoeniceus</i>	1	
	Mourning dove	<i>Zenaida macroura</i>	2	
	Woodpecker	<i>F. Picidae</i>	1	
	American Crow	<i>Corvus brachyrhynchos</i>	1	
	Say's Phoebe	<i>Sayornis saya</i>	1	
	Eastern kingbird	<i>Tyrannus</i>	1	
	Northern cardinal	<i>Cardinalis cardinalis</i>	1	
Bird 2	Pileated woodpecker	<i>Dryocopus pileatus</i>	1	Upland forest
	Northern cardinal	<i>Cardinalis cardinalis</i>	1	
	Great crested flycatcher	<i>Myiarchus crinitus</i>	1	
Bird 3	Pileated woodpecker	<i>Dryocopus pileatus</i>	1	
	Great crested flycatcher	<i>Myiarchus crinitus</i>	1	
	Acadian flycatcher	<i>Empidonax vireescens</i>	1	
	American Crow	<i>Corvus brachyrhynchos</i>	1	
	Ruby-throated hummingbird	<i>Archilochus colubris</i>	1	

Fauna Data Table		
Common Name	Scientific Name	Location
Raccoon	<i>Procyon lotor</i>	Encountered along unnamed stream #2, tracks were seen along all streams
White-tailed deer	<i>Odocoileus virginianus</i>	Encountered in grassland field, tracks present across entire site
Mouse	<i>Peromyscus</i> spp.	Encountered along unnamed stream #2
Eastern gray squirrel	<i>Sciurus carolinensis</i>	Encountered in upland forest
Red swamp crayfish	<i>Procambarus clarkii</i>	Observed in puddle near front gate
Sunfish	<i>Lepomis</i> spp.	Remains observed along banks of Captain Creek
Rainbow Darter	<i>Etheostoma caeruleum</i>	Captured at kick net location skn5
Common snapping turtle	<i>Chelydra serpentina</i>	Encountered along Captain Creek bank
Wild turkey	<i>Meleagris gallopavo</i>	Encountered in grassland field, upland forest, and tracks were observed across the property, along with nesting areas in the grassland field.
Coyote	<i>Canis latrans</i>	Observed in adjacent property to the north
Monarch Butterfly	<i>Danaus plexippus</i>	Observed in the grassland field

### Listed Species

During the 2013 site visit, no observed federal- or state-listed species were found on or within 1,000 feet of the site. No suitable habitat for federal-listed species was observed on-site or within 1,000 feet of the site other than the open fields where there is the potential for Mead's milkweed (*Asclepias meadii*), which is found in Johnson County.

USFWS (2013) lists two species, Mead's milkweed (*Asclepias meadii*, T) and pallid sturgeon (*Scaphirhynchus albus*, E), in Johnson County. There is no habitat for the pallid sturgeon associated with KS031. In 2019, a field survey to determine if Mead's milkweed (*Asclepias meadii*) is located within the property limits found no Mead's milkweed on the site. For detail regarding the field survey, please consult the final report for the Meads Milkweed is available upon request or found on the P-drive (P:\DPW\Facility Archive\KS\KS031 De Soto Sunflower WET\Environmental\KS031 Land Resources\KS031 Endangered Species\KS031 Mead's Milkweed).

Potentially suitable habitat for the following state-threatened species (legally protected under Kansas state law) exists on KS031 for the eastern spotted skunk (*Spilogale putorius*), along with two Species in Need of Conservation: redbelly snake (*Storeria occipitomaculata*), and smooth earth snake (*Virginia valeriae*).

There are no documented state-listed species on or within 1,000 feet of the site. Kansas Nongame and Endangered Species Conservation Act provide Legall protection to State-threatened species in Kansas (see Section 2.2). The Kansas Department of Wildlife and Parks (KDWP) administer the protections.

Eastern spotted skunks prefer forest edges and upland prairie grasslands, especially where rock outcrops and shrub clumps are present. Woody fence rows and abandoned farm buildings are also important habitat for eastern spotted skunks. Potentially suitable habitat for this species exists in the grassland areas in the western portion of the site, and in the riparian areas along Captain Creek and its tributaries.

A 2019, field survey to determine the eastern spotted skunk has a presence within the site. Motion activated camera traps were set up in areas where, if present, the skunk would likely be and no spotted skunks were recorded. For details regarding the spotted skunk survey, see the final report on the P-drive. (P:\DPW\Facility Archive\KS\KS031 De Soto Sunflower WET\Environmental\KS031 Land Resources\KS031 Endangered Species\KS031 Eastern Spotted Skunk).

In the 2015-2020 USFWS Interior Region 5/7 INRMP, it was reported that both redbelly and smooth earth snakes may have a presence on the site. They both have similar habitat requirements: preferring deeply wooded regions near rivers and lakes, sandstone woods, wooded hillsides, hillsides near streams, steep slopes of forested hills, moist areas, moist woodlands, woodlands with dense leaf litter, lowlands, forest edge, open fields, old dilapidated farm buildings, and woodlands, which remain damp throughout the year. Potentially suitable habitat for these species exists in the forested areas (upland and bottomland deciduous forest) in the eastern portion of KS031, and in the riparian areas along Captain Creek and its tributaries.

Recent research indicates that neither of the above mentioned snake species, while listed as potentially present in Johnson County, and it is unlikely that they will be found in the area of KS031, therefore they will not be surveyed for at this site.

A 2020, acoustic bat survey to determine the presence or absence of bats at Sunflower (KS031). During the survey, the federally endangered gray bat (*Myotis grisescens*) identified. Sunflower is at the species' approximate western limits for the typical range which is predominantly in the southeastern United States. The gray bats were likely using this habitat solely for foraging as they roost exclusively in limestone karst caves year round. No such caves are located on site. For details regarding the acoustic bat survey, see the final report on the P-drive: (P:\DPW\Facility Archive\KS\KS031 De Soto Sunflower WET\Environmental\KS031 Land Resources\KS031 Endangered Species/ KS031-20709 Sunflower Acoustic Sampling Report w acceptance 2020).

### **3.8.6 Outdoor Recreation, Public Access, and Agricultural Outleasing**

Sunflower LTA could provide opportunities for public access and outdoor recreation in the form of hiking, hunting, bird-watching, and other recreational pursuits, currently the 88th RD does not have any personnel on site or in close proximity to monitor recreation or public access of the training area. Additionally, this site already provides agricultural opportunities using the grassland on the western side of the property that currently is under an agricultural lease.

### **3.8.7 Management Issues and Concerns**

Woodlands on the site contain valuable mature oak (*Quercus spp.*) and black walnut (*Juglans nigra*) trees. Timber harvest could be considered, but the terrain may not be conducive to logging activity. Timber harvesting may adversely impact to Captain's Creek and lead to sedimentation and erosion issues if no mitigation practices are implemented due to the steep side slopes.

Japanese honeysuckle (*Lonicera japonica*) was previously listed as a major component within the upland forest; however, this was misidentified in the previous survey and is actually coral berry (*Symphoricarpos orbiculatus*). Coral berry is native to Kansas and does not pose an issue to the site. No Japanese honeysuckle was found on the site during the 2019 survey.

No significant natural resource management issues were observed at the site.

### **3.8.8 Special Interest Areas**

No special interest areas are located on or within 1,000 feet of KS031.



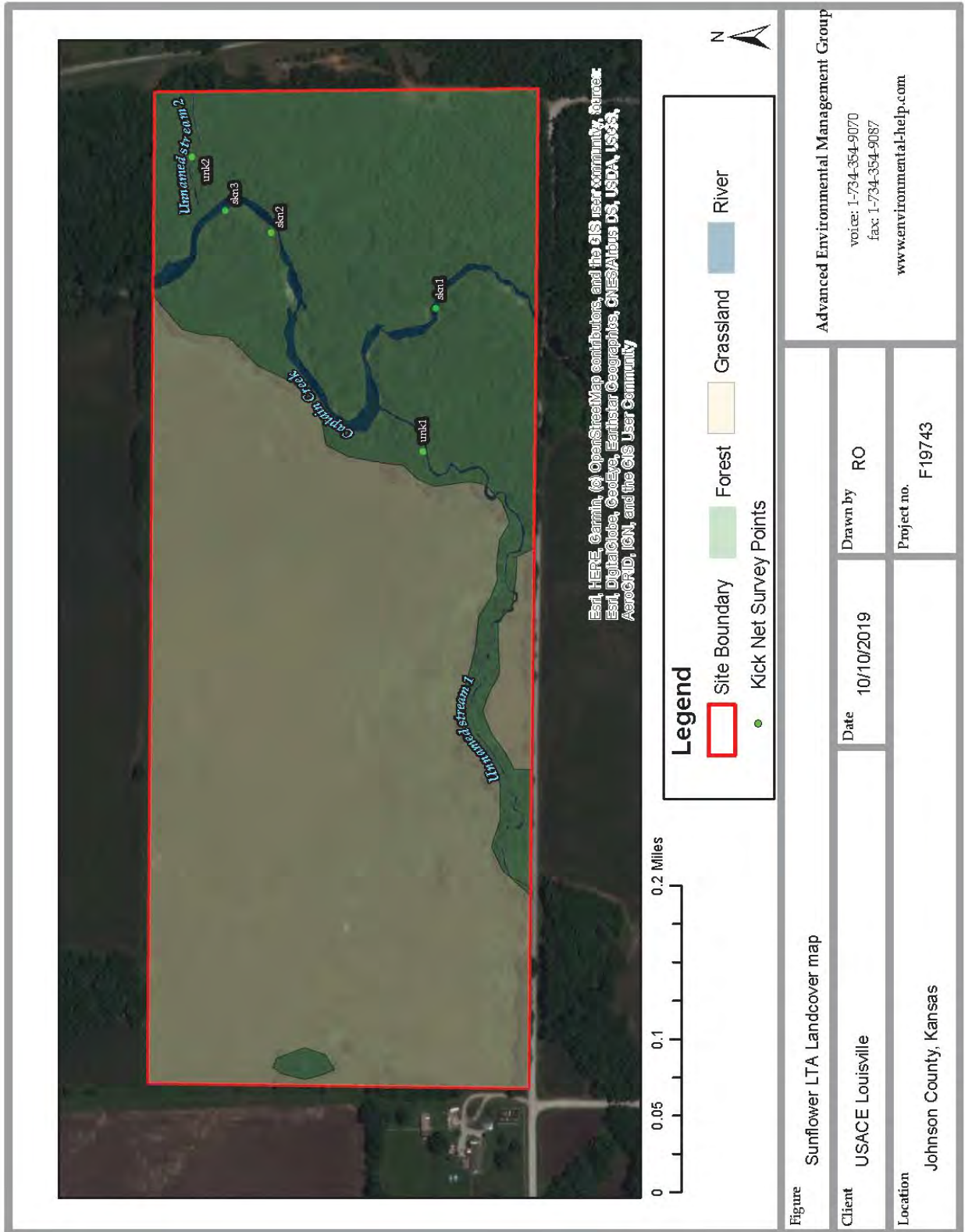


Figure 3.5 Site Map – KS031/20790

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### 3.9 Mead LTA (NE010/31895)

#### High Resource

Nebraska 63 Highway  
Mead NE 68401

**County:** Saunders

**Building Count:** 0

**Acres:** 950.87

**Last Field Survey :** 2018



The Mead LTA (FACID NE010, Site Code 31895) consists of undeveloped land used for crops, corn, and alfalfa. Only outdoor training takes place at this site. This site includes two extraction buildings that are present for the ongoing groundwater remediation and monitoring. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The USACE owns and operates the buildings located on the southeast and southwest corners of the property. The 88th RD owns the land, but no structures at NE010.

#### 3.9.1 Geographic Location and Size

NE010 is located near the city of Mead, population 624, in Saunders County. This site is in the East region of the state (Figure 2.4). The acreage of the site is 950.87 acres according to the U.S. 88th RD master geodatabase. Surrounding land use is entirely agricultural; to the north and west is a portion of the University of Nebraska Experimental Farm. Shown on Figure 3.7 is the site boundary. Since the site has no street address, latitude and longitude for the site = 41°08'34.8"N / 96°24'57.6"W.

#### 3.9.2 Geological Resources

##### Physiography and Geology

NE010 is located within the Dissected Till Plains physiographic section of the Central Lowland physiographic province. In this section, rivers and streams dissect a terrain created by glacial deposits (till) and form low rolling hills, ridges, and some bluffs. Geological formations at NE010 are Early Cretaceous (sandstone and shale).

##### Soils

According to the United States Department of Agriculture Natural Resources Conservation Services (USDA-NRCS) online web soil survey, the site area is composed of Scott silt loam, terrace, frequently ponded (1.2%); Fillmore silt loam, terrace, occasionally ponded (2.3%); Yutan silty clay loam, terrace, 2 to 6 percent slopes, eroded (53.3%); Tomek silt loam, 0 to 2 percent slopes (14.5%); Filbert silt loam, 0 to 1 percent slopes (25.8%); and Pohocco-Pahuk complex, 6 to 11 percent slopes, eroded (2.9%) (NRCS Web Soil Survey, 2018).

##### Topography

The site has a gently sloping topography, ranging from 1,131 to 1,160 feet amsl.

#### 3.9.3 Water Resources

##### Watershed and Surface Waters

NE010 occurs within the Salt watershed. An unnamed, intermittent tributary of Clear Creek flows west to southeast through the southern portion of the site (Figure 3.9). A moderate level of flow was observed in this stream during the field survey, and a biological sample was collected. The stream traverses NE010 through a narrow wooded corridor. The banks of the stream are heavily vegetated with the herbaceous and shrub understory of the wooded corridor. The average channel width was approximately 3 feet, with a minimum width of approximately 1 foot and a maximum width of

approximately 6 feet. In places, the channel is overgrown with vegetation. On-site portions of this unnamed tributary are predominantly straight. Bank-full height ranges from approximately 2 feet to approximately 4 feet, with an average of approximately 3 feet. Stream substrate consisted entirely of silt/mud with a few large rocks, gravel, and sand in the channel. In addition to natural stream flow from off-site portions of the stream, this stream captures flow from roadside ditches along the eastern portion of the site. This intermittent stream is of low quality for aquatic species, but is an important water source for other wildlife species utilizing the property. During dry conditions, the stream is likely dry and wildlife would be required to find water elsewhere. Under the Cowardin classification, this stream meets the criteria for a riverine, intermittent, mud unconsolidated bottom (R4UB3) wetland.

One in-stream benthic invertebrate sample was collected in June 2013 to provide representative data for the habitat. The sample location was near where the stream leaves the property to the southeast. The presence of aquatic worms and midge larvae indicated that this stream is low quality for aquatic life. Benthic invertebrate metrics calculated for the sample indicate a low habitat quality.

A second unnamed tributary to Clear Creek is located approximately 400 feet east of the site.

## **Wetlands**

The field surveys identified twelve wetlands at NE010, described in detail below. As documented in the field survey, all wetlands are isolated with no positive nexus to waters of the United States. Based on this observation, wetlands on-site are not likely federal jurisdictional. Prior to any proposed activities that may directly affect the wetlands, confirmation of jurisdictional status by USACE is recommended.

Palustrine emergent, persistent, and temporarily flooded wetland (PEM1A) describes all 12 wetlands. The general hydrology for these wetlands is shallow catchment basins, which are most likely filled

**Wetland 1** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this herbaceous wetland is an approximately 0.69-acre. Dominant plants are reed-canary grass (invasive-exotic species), smartweed, and stiff sunflower. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included a high water table (2 inches), soil saturation (at surface), and an algal mat. This wetland appears to be in a stable condition with no observed threats to its functioning capabilities. Wetland 1 is a narrow linear strip that resembles a remnant channel from an unknown stream.

**Wetland 2** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) wetland is approximately 0.32-acres of herbaceous wetland. Dominant plants in this wetland are sunflower, smartweed and fox sedge. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The primary hydrological indicator within this wetland is soil saturation (at surface). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities. Wetland 2 is as a narrow linear strip that resembles a remnant channel from an unknown stream.

**Wetland 3** is located in the northwest quadrant of the site. This herbaceous wetland is one of the larger wetlands identified on this site, approximately 3.38 acres in size is classified as palustrine emergent, persistent, and temporarily flooded (PEM1A). Dominant plants in this wetland are smartweed, water knotweed, sunflower, swamp milkweed, and straw sedge. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The primary hydrological indicator within this wetland is soil saturation (10 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 4** is located in the southwest quadrant of the site. This wetland is approximately 3.53 acres, an increase from the 1.97 acres estimated in 2009. Classified as a palustrine emergent, persistent, and temporarily flooded (PEM1A) Wetland 4 is an herbaceous and shrub/scrub wetland, and palustrine shrub/scrub, broad-leaved deciduous, and temporarily flooded (PSS1A) wetland. Dominant plants in this wetland are green ash (70 percent of the

wetland area) and water knotweed. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included surface water (3 inches) and soil saturation (at surface). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 5** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this is an approximately 1.76-acre herbaceous wetland. Dominant plants in this wetland are reed-canary grass (invasive-exotic species), river bulrush, and water knotweed. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included a high water table (2 inches), soil saturation (at surface), and water-stained leaves. This wetland appears to be in stable condition with no observed threats to its functioning capabilities.

**Wetland 6** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this is an approximately 1.26-acre herbaceous wetland. Dominant plants in this wetland are river bulrush, reed canary grass (invasive-exotic species), water knotweed, and narrow-leaf cattail (invasive-exotic species). The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included soil saturation (at surface) and an algal mat. This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 7** is located in the northeast quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) is an approximately 3.08-acre herbaceous wetland. Dominant plants in this wetland are smartweed and river bulrush. The depleted soil matrix (10 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included a high water table (at surface), soil saturation (at surface), and surface water (1 to 2 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 8** is located in the northeast quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this wetland is a 1.77-acre (1.24 acres in 2009) herbaceous wetland. Dominant plants in this wetland are river bulrush, American elm, and water knotweed. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. Primary hydrological indicators included a high water table (6 inches), soil saturation (at surface), and surface water (1 to 2 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 9** is located in the southwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this is a very small (approximately 0.06 acres) herbaceous wetland. The dominant plant in this wetland is water knotweed. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The primary hydrological indicator within this wetland is soil saturation (12 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities. There is no overland hydrologic connection to the adjacent stream.

**Wetland 10** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A), this is a mid-sized (approximately 2.57 acres) herbaceous wetland. Dominant plants in this wetland are smartweed and water knotweed. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The primary hydrological indicator within this wetland is soil saturation (10 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 11** is located in the northwest quadrant of the site. Classified as palustrine emergent, persistent, and temporarily flooded (PEM1A) this is a small (approximately 0.31 acres) herbaceous wetland. Dominant plants in this wetland are water knotweed and barnyard grass. The depleted soil matrix (7.5 YR 2.5/1) is evidence of hydric soil. The primary hydrological

indicator within this wetland is soil saturation (9 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

**Wetland 12** is located in the southwest quadrant of the site. This wetland is a small (approximately 0.27 acres) herbaceous wetland and is classified as palustrine emergent, persistent, and temporarily flooded (PEM1A). Dominant plants in this wetland are smartweed, water knotweed, common ragweed, and swamp milkweed. Hydric soil is evidenced by the depleted matrix (7.5 YR 2.5/1). The primary hydrological indicator within this wetland is soil saturation (9 inches). This wetland appears to be in a stable condition with no observed threats to its functioning capabilities.

Purple loosestrife was the only listed invasive species documented in these emergent wetland communities in 2009. During 2013 field survey, purple loosestrife had either not emerged enough to be identified or was not present at the time. This species was a non-dominant component of the vegetation community in Wetlands 1 and 4, and present at low density only. Although not listed on current invasive-exotic species lists (USDA 2013), reed canary grass is widely recognized as an invasive species, and was identified within the wetlands at this site. Reed canary grass is a dominant component of Wetlands 1, 5, 6 and 11. This species is present at medium-high density in these wetlands. The invasive-exotic species documented in the wetlands at NE010 may represent a major threat to the integrity of all the wetlands on-site, and efforts should be taken to eliminate and control these aggressive invasive-exotic species.

According to NWI data, two palustrine emergent (both PEMA) wetlands are located on NE010, which correspond to wetlands 10 and 11 as described above. NWI data also indicated that an additional five PEM wetlands exist outside of NE010, but within 1,000 feet of the site. These five wetlands are located as follows: approximately 50 feet west of the northwestern portion of the site (PEMA), approximately 700 feet west of the northwestern portion of the site (PEMA), approximately 550 feet north of the northwestern corner of the site (PEMA), approximately 950 feet northwest of the northwestern corner of the site (PEMA), and approximately 300 feet north of the northeastern corner of the site (PEMCx).

### **Floodplains**

According to FEMA GIS data, no floodplains are on or within 1,000 feet of the site.

### **3.9.4 Cultural Resources**

Cultural resources investigations were completed at this site in 1992 and 2003. Four archeological sites were found, evaluated, and determined to be ineligible for the NRHP. No additional archaeological investigations are required for the NE010/Mead LTA.

New real estate surveys by the 88th RD have identified several small or new buildings (11) on the property. However, all were constructed and are currently managed by the USACE as a water treatment facility. The 88th RD has no cultural resource management responsibility for these buildings.

The 2014 – 2018 ICRMP for sites located in Nebraska will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\NE\NE ICRMP Update 2014-2018.

There are no cultural resources agreement documents in place for this site.

Prior to any ground disturbing activities the most current ICRMP should be consulted for procedures and SOPs compliance with the NHPA.

### 3.9.5 Biological Resources

#### Land Cover and Ecological Communities

The site is comprised of four major land cover types.

Land Cover and Ecological Communities	Acres	Percent of Site
Deciduous Forest	37.91	3.99
Emergent Wetland	18.96	1.99
Grassland/Field	845.54	88.92
Shrub/Scrub	48.46	5.10
Total	950.87	100

#### Vegetation Communities

The wooded areas are dominated by smooth brome, motherwort, Canada goldenrod, and tall thistle in the herbaceous layer; American plum in the shrub layer; and Siberian elm (invasive-exotic species), white mulberry (invasive-exotic species), hackberry, cottonwood, white ash, honey locust, black walnut, black locust, red cedar, and Osage orange in the canopy layer. Ash trees were found on occasion in the wooded areas (less than 10) and in good condition.

The grasslands are dominated by smooth brome, fescue, yellow foxtail, curly dock, red clover, Canada goldenrod, and heath aster in the herbaceous layer.

Smooth brome, fescue, tall thistle, common milkweed, and white vervain in the herbaceous layer, and Siberian elm in the shrub layer dominate the scrub/shrub community. Siberian elm and smooth brome are widely recognized as invasive-exotic species. Most trees observed at this site appeared to be healthy, and no signs of disease were identified. NE010 contains four woodlots, none of which are individually, or collectively, commercially viable. The stands cover approximately 8.40 acres and contain low quality, mixed aged, upland mixed hardwood forest. Other forested areas were observed along stream courses or overgrown fence rows, but were not sampled due to the small areas represented. The dominant over story species include black walnut, honey locust, green ash, Siberian elm, eastern cottonwood, and hackberry. Tree health within the surveyed area is generally moderate. Many trees displayed poor form and excessive branching; typical of specimens grown in open field (i.e., full sun) conditions. No evidence of disease or safety hazards was observed, although a few standing dead, trees were present.

#### Invasive Species

In addition to the invasive-exotic species described above, several other invasive-exotic species including Siberian elm, cannabis, bull thistle, Osage orange, honey locust, Canada thistle, Johnson grass, and field bindweed have been documented at this site, and efforts should be made to monitor and remove these species as necessary. Control burn, or hay cutting can help control these species.

#### Wildlife

Wildlife observed during the 2013 site survey included ring-necked pheasant, gray catbird, barn swallow, house wren, blue jay, American robin, Carolina chickadee, eastern cottontail, northern cardinal, red-bellied woodpecker, red-tailed hawk, meadowlark, scarlet tanager, scissor-tailed flycatcher, turkey vulture, northern bobwhite quail, wild turkey, house sparrow, northern harrier, European starling, mourning dove, indigo bunting, red-winged blackbird, killdeer, American goldfinch, brown-headed cowbird, eastern phoebe, savannah sparrow, groundhog, beaver, raccoon, white-

tailed deer, and fox squirrel. Evidence of small mammals and rodents were abundant with box turtle, banded water snake, red-eared slider, black rat snake, and numerous frogs observed in the wetlands.

Habitat is present for migratory birds as many utilize tall grass prairie and woodlands for feeding, resting, and nesting in their migration. No specific migratory birds were observed during June 2013 as this is not a very active migratory period. During early spring and fall, the site provides a large enough area for stop over for a number of song-bird species. The lack of standing water in the wetlands does not provide an important stop over area for waterfowl or wading birds. Eagles were not observed during the survey. Their closest wintering range is on the North Platte River. Bald eagle habitat is not likely due to lack of large water area for this primarily fish eating species. Golden eagles nesting range does not overlap with NE010 and only includes western Nebraska.

### **Listed Species**

No federal- or state-listed species were observed during the 2009 or 2013 site visits. Potential habitat for the northern long-eared bat (*Myotis septentrionalis*, T) occurs in the wooded areas on NE010, and potentially suitable habitat for narrowleaf paleseed (*Leucospora multifida*) may exist in the grassland and shrub/scrub areas located throughout the site.

The USFWS lists six species, northern long-eared bat, piping plover (*Charadrius melodus*, T), western prairie fringed orchid (*Platanthera praeclara*, E), salt creek tiger beetle (*Cicindela nevadica lincolniana*, E), and pallid sturgeon (*Scaphirhynchus albus*, E), in Saunders County.

Northern long-eared bats typically roost singly or in colonies, during the summer, in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically greater than or equal to 3 inches dbh). This bat seems opportunistic in selecting roosts, using tree species based on presence of cavities or crevices or presence of peeling bark. They forage for insects in upland and lowland woodlots and tree lined corridors, and over water surfaces. During the winter, the bat predominately hibernates in caves and abandoned mine portals, which do not exist at NE010.

### **3.9.6 Outdoor Recreation, Public Access, and Agriculture Outleasing**

Currently the majority of the site is being used for agricultural outleasing to multiple lease holders. The USACE contracts and oversees the agricultural leases in coordination with the 88th RD. The leases are updated every five years. The field team observed some wetland disturbance in a number of wetlands due to farm equipment. There is no hunting or fishing program.

There are no outdoor recreation or public access possibilities at this site.

### **3.9.7 Management Issues and Concerns**

During the natural resource field survey, wetland areas with potential for migratory bird stopover were identified. Many of the wetlands on the site were being negatively impacted by agricultural practices. It is recommended that these areas be maintained to reduce further impact.

During the field survey, it was noted that Stream 1 should be monitored for erosion and sedimentation issues with the focus on improving the quality of this stream. The culvert near the road on the eastern side of the property had erosion issues in the past.

Invasive species were identified on the site in the wetland areas. The invasive species included giant reed, common reed, and smooth brome. Invasive species management would improve the quality of the wetlands on the site but none of these species is considered noxious weeds so they do not require management actions.

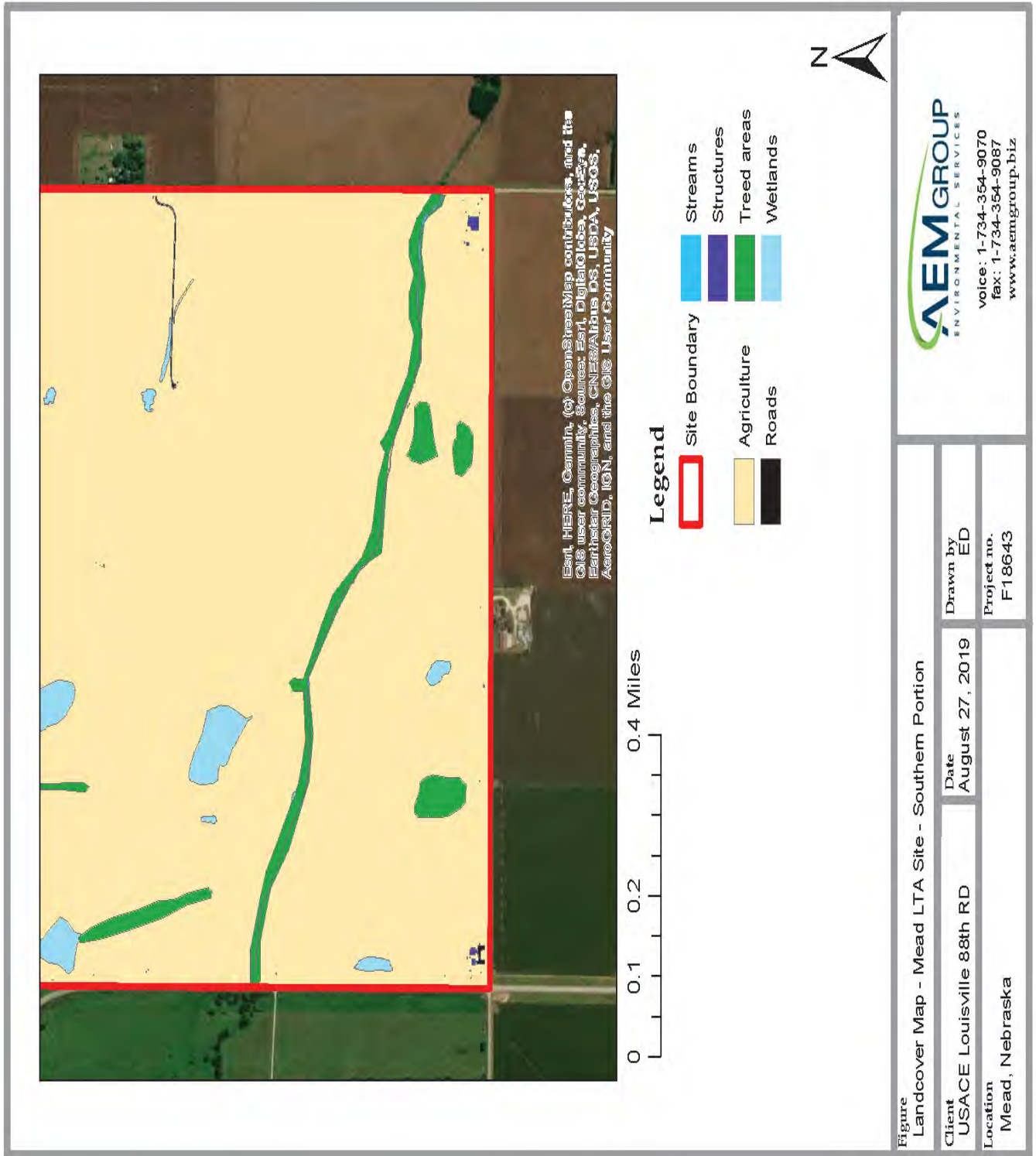
### **3.9.8 Special Interest Areas**

No special interest areas are located on or within 1,000 feet of NE010.





**Figure 3.7N Site Map – NE010/31895 (northern portion) (41°08'34.8"N / 96°24'57.6"W)**



**Figure 3.7S Site Map – NE010/31895 (southern portion)**

### 3.10 Stephen A. Douglas Armed Forces Reserve Center (SADAFRC) (UT002/49276) – High Resource

296 S Chase St.  
Salt Lake City UT 84113-5004

**County:** Salt Lake  
**Acres:** 50.88  
**Building Count:** 21  
**Last Field Survey:** 2018



Fort Douglas Reserve Complex, hereafter referred to as UT002, consists of 21 buildings, and associated parking areas. The site provides classroom training, administrative services, vehicle maintenance in AMSA 119, and storage. The 88th RD owns the land and all of the buildings within the complex; the Fort Douglas Museum and United States Navy/Marines utilize some buildings.

#### 3.10.1 Geographic Location and Size

UT002 is located in Salt Lake City, population 186,440, within Salt Lake County. The acreage of the site was reported as 50.88 acres according to the 88th RD master geodatabase. Surrounding land use consists of residential and commercial properties along all borders, with the exception of a portion of the southern property boundary which abuts Red Butte Creek.

#### 3.10.2 Geological Resources

##### Physiography and Geology

The site resides within the Basin and Range Province. This region is characterized by steep mountain ranges with long, flat basins. The topography and dry climate create a variety for features and landscapes such as pediments, alluvial fans, playas, mud flats, salt flats, lakes, sand dunes, cantons, and the Rio Grande Rift (NPS, 2018).

##### Soils

The United States Department of Agriculture Natural Resources Conservation Services (USDA-NRCS) online web soil survey, reports the site is composed of 95.1 percent Bingham gravelly loam with 3 to 6 perfect slopes, 4.9 percent Stony terrace escarpments. Bingham gravelly loams are well drained, have a depth to water table of more than 80 inches, and are classified as prime farmland if irrigated. The surface soil layer texture is gravelly loam.

##### Topography

UT002 is generally flat with an elevation of approximately 4,850 to 4,920 feet amsl.

#### 3.10.3 Water Resources

##### Watershed and Surface Waters

This site lies within the Jordan watershed in the central portion of the state. There are no surface waters on-site. Red Butte Creek is located approximately 100 feet south of the southern boundary of the site. Red Butte Creek is monitored daily by the U.S. Geological Survey (USGS) for flow and temperature at Fort Douglas, Utah. The sample location is latitude 40°46'48", longitude 111°48'19".

##### Floodplains

There are no floodplains located on the site. Portions of the 100-year and 500-year floodplains of Red Butte Creek are located approximately 100 feet south of the site.

## Wetlands

No wetlands were observed on-site during the 2018 site survey. According to the U.S. Fish and Wildlife Service National Wetland Inventory, there are no wetlands on the site or within 1,000 feet of the site. Red Butte Creek is located within 1,000 feet of the site boundary to the southeast.

### 3.10.4 Cultural Resources

The Fort Douglas Cantonment is located within a National Historic Landmark (NHL) and the National Register Historic District. The trees within the Fort Douglas Complex are a significant contributing part of the landmark and proposed undertakings to the historic landscape or trees requires compliance with the National Historic Preservation Act. The landscape is defined by the relationship between the trees and the buildings onsite, setting the landmark apart from surrounding areas with the larger canopy and shaded areas. The 88th RD is required to maintain and protect the historic significance of properties, including the need to develop short- and long-range goals to protect the historic landscape. Please refer to the 2018 Fort Douglas Tree Management Plan and ICRMP for further detail.

The 2015-2019 ICRMP reports; “An assessment of the archaeological sensitivity for this site was conducted in the cantonment area by Weissling et al. (2011) and in the post cemetery by Weissling et al. (2010a). Areas that contain high, moderate, and low potential for subsurface archaeological deposits were identified. Weissling et al. (2011) also conducted a GPR survey throughout portions of the site that identified anomalies associated with nonexistent buildings and features which may be contributing resources to 42SL36. An archaeological resource management plan for the cantonment area (Meess and Stettler 2011) and the post cemetery (Weissling et al. 2010b) were developed to mitigate potential effects and preserve archaeological resources during certain types of ground-disturbing activities (Meess and Stettler 2011). This plan should be consulted prior to any ground disturbing activities at this site. The UT SHPO concurred with the archaeological resource assessments and associated management plans for the Cantonment Area and the Cemetery May 9, 2011.” (Note – Since the publication of the 2015-2019 ICRMP the Ft. Douglas cemetery has been transferred to the Veterans Administration and is no longer part of the 88th RD's real estate holdings)

The 2015 – 2019 ICRMP for sites located in Utah will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\UT\2015-2019 UT ICRMP Update. The 2021-2025 ICRMP Update is currently in development.

Prior to any ground disturbing activities, the most current ICRMP should also be consulted to follow SOPs and for compliance with the NHPA.

### 3.10.5 Biological Resources

#### Land Cover and Ecological Communities

The site contains four (4) main land cover types as represented in Table 1: Land Cover Area and Ecological Communities at UT002. The site is covered by: approximately 0.69% buildings, 55.10% pavement, 0.41% xeric landscaping, and 43.80% maintained grass.

Land Cover and Ecological Communities	Acres	Percent of Site
Buildings	0.35	0.69
Paved Road/Parking	28.04	55.10
Xeric Landscaping	0.21	0.41
Maintained Grass	22.28	43.80
Total	50.88	100

## Vegetation Communities

Vegetation communities at the site consist of maintained grass and landscaped areas. The maintained grass and lawn area near the entrance to the site is dominated by:

- field bindweed (*Convolvulus arvensis*)(invasive exotic species)
- green ash (*Fraxinus pennsylvanica*)
- bluegrass turf grass (*Poa pretensis*)
- white clover (*Trifolium repens*)

The landscaped hill area was dominated by:

- hedge maple (*Acer campestre*)
- Indian blanket flower (*Gaillardia pulchella*)
- ornamental cherry (*Prunus serrulata*)
- fragrant sumac (*Rhus aromatic*)
- elderberry (*Sambucus canadensis*)

There are a number of large shade trees adjacent to the buildings, primarily in the northern portion of the site. These trees were located in mowed grass areas.

The dominant tree species included:

- box elder (*Acer negundo*)
- cottonwood (*Populus deltoids*)
- green ash (*Fraxinus pennsylvanica*)
- black locust (*Robinia pseudoacacia*)
- Siberian elm (*Ulmus pumila*)
- blue spruce (*Picea pungens*)

The single invasive exotic species (field bindweed) recorded was present at low density.

No listed and candidate, federal, state, or Army species-at-risk plants were observe.

The historic old-growth trees at Fort Douglas are an integral part of the historic landscape and character of the main cantonment area, and as such must be treated as contributing resources to the National Historic Landmark (NHL) and the National Register (NR) of historic districts.

In 2018, a field survey was conducted and a forest management plan for the historic old-growth trees at Fort Douglas was created. This management plan provides recommendations for the 289 trees located within the site boundary. At the time of the site visit, seven (7) trees were recommended for removal and replacement within the cantonment area. Undertakings to the historic landscape or trees require compliance with the National Historic Preservation Act.

## Invasive Species

Invasive species observed within the site included: field bindweed, cheat grass, Dalmatian toadflax, and jointed goat grass. Field bindweed was the most common invasive species recorded. It was present in an overall low density (less than two acres of infestation throughout the site grounds), although common within the xeric landscaping area and within gravel beds. Dalmatian toadflax was observed growing in gravel beds adjacent to parking areas in two to five small infestations (5-10 plants) within the site. Cheat grass was present in the xeric landscaping area, in areas with exposed soil, and within gravel beds. One small infestation of jointed goat grass (<50 plants) was observed within a gravel bed on the northeastern side of the site near the recreation area. In accordance with the Federal Noxious Weed Act (7 USC. 2801 et seq.) and Utah State Noxious Weed Act, landowners must control the spread of invasive species from their property. County Weed Control Boards have the authority to prevent the spread of invasive species and charge landowners for controlling invasive species.



## **Wetlands**

No wetlands were observed on-site during the 2018 site survey. U.S. Fish and Wildlife Service's NWI report indicates that there are no wetlands on the site or within 1,000 feet of the site. Red Butte Creek is located within 1,000 feet of the site boundary to the southeast.

## **Wildlife**

During the natural resource survey update, bird surveys were conducted on the morning of September 24, 2018. Observations were limited to common species which included: two chickadees (*Poecile atricapillus*), and one blue jay (*Cyanocitta cristata*).

At the time of the field survey observations, included evidence of a raptor was seen onsite; bird feathers were observed under and in the branches of a tree, presumably from raptor predation.

No other wildlife was observed at the time of the field survey; however, anecdotal information from site personnel indicated that deer, moose, owls, and cougars all use the site as a thoroughfare.

## **Listed Species**

The Natural Resource Survey updates process includes investigation into the potential for presence or absence of local, state, federal threatened and endangered species along with Army Species at Risk (SAR) is fully evaluated and researched. Threatened and Endangered species presence or absence was established through the 2018 site visit and the USFWS's iPac system.

**No plant or wildlife listed species or SAR were observed onsite during the 2018 NR survey or has the potential to be located within the site's property limits due to lack of suitable habitat.**

The completed 2018 Natural Resource Survey for this site provides a full list (as of the date of publication) of the known species that are identified on the local, state, federal and Army SAR lists with the potential to be located on the site. (AEM, 2018a) The 2018 Natural Resource Survey will be provided upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Land Resources - ARCHIVE\NR Surveys\FY18 NR Surveys\Final Reports\UT002 Ft. Douglas ARC

### **3.10.6 Outdoor Recreation, Public Access and Agricultural Outleasing**

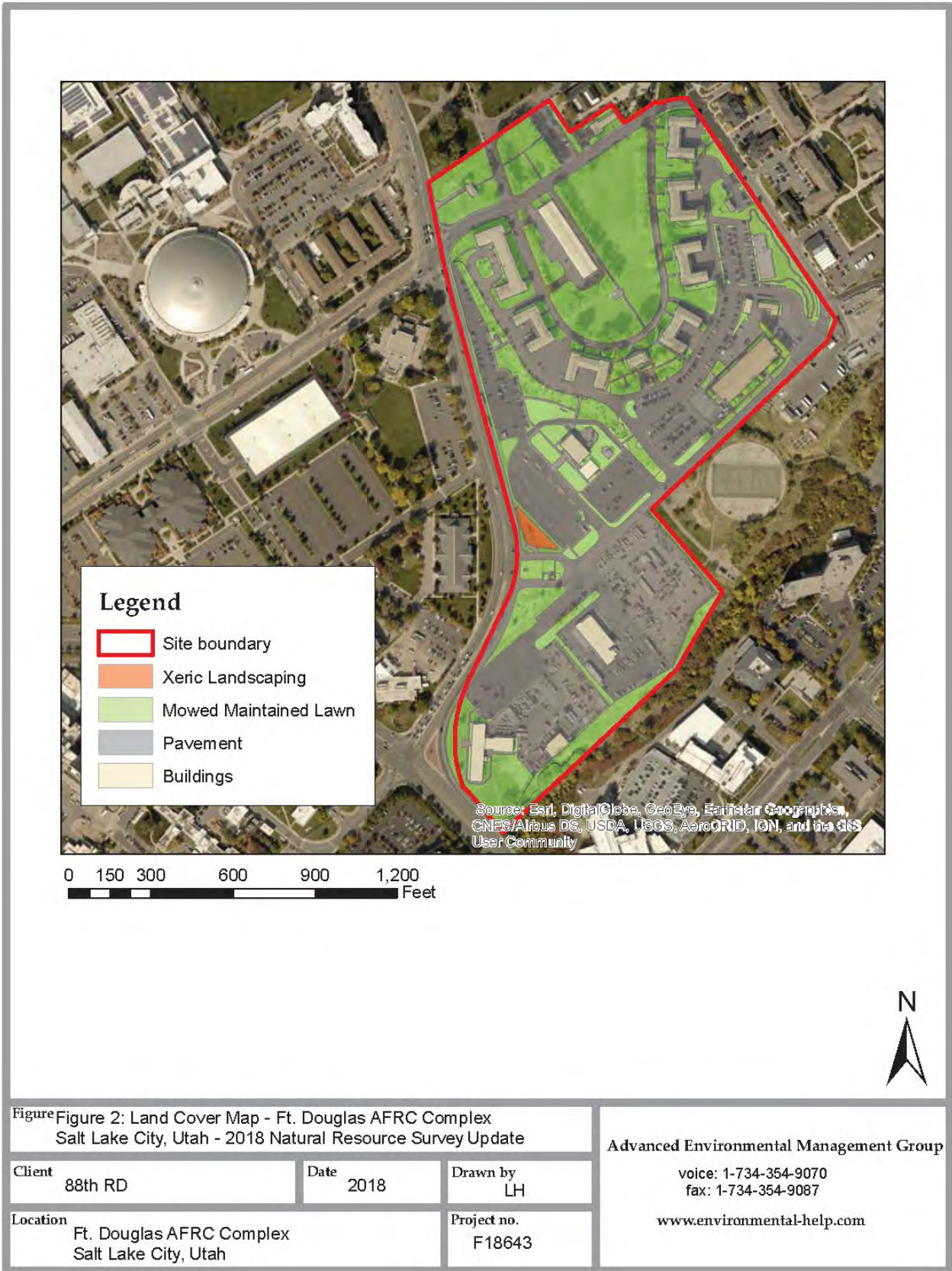
This site does not appear provide any opportunities for outdoor recreation, public access, and agricultural outleasing on this site area. The site grounds lack aesthetic natural communities, hunting areas, or the area to perform crop agriculture.

### **3.10.7 Management Issues and Concerns**

No significant natural resource management issues were observed on the site. The grounds of the site are located in a relatively urban setting; and the majority of it is mowed maintained grass. Based on this, wildlife may pass through the site but the area offers no habitat for breeding, roosting, or foraging.

### **3.10.8 Special Interest Areas**

No special interest areas occur within 1,000 feet of the site.



**Figure 3.8 Site Map – UT002/49276**

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### 3.11 Frank M. Browning/Ogden LTA – (UT007/49676) High Resource

1380 N 1200

Ogden, UT 84404-3448

**County:** Weber

**Acres:** 137.95

**Building Count:** 1

**Last Site Survey:** 2018

LTA – Ogden (FACID UT007, Site Code 49676 f/k/a UT035) consists of a building complex (the ARC and OMS) and associated parking areas. The site provides military training. The 88th RD owns the buildings, parking areas, and Local Training area that comprises the Ogden complex



Military training/use of UT007 includes but is not limited to the following activities:

- nuclear biological chemical training (limited to setup and operation of organic equipment and protective clothing);
- land navigation training (compass and map procedures);
- drivers training course (wheeled and tracked vehicle use);
- reconnaissance, selection, and occupation position training (site selection, reconnaissance, site security, locations for unit operations, etc.);
- fuel/water storage and distribution training (no fuels used);
- communication training (erect antennas, lay ground wire, operate communications equipment);
- common task training (establish training stations, such as first aid, land navigation, map reading);
- force protection training (establish fighting positions, checkpoints, etc.);
- maintenance operations training (operational checks of equipment and field servicing procedures);
- staff training exercises (training and exercise of staff elements and functions); and
- engineer operations training (construction of individual fighting positions and barriers; utilize various track vehicles, such as bulldozers and personnel carriers; establish simulated mine fields; emplace wire entanglements and barricades).

#### 3.11.1 Geographic Location and Size

UT007 is located in Ogden, within Weber County. The Real Property Detail Report shows acreage as 137.95 acres. The surrounding properties appear to be largely residential to the north and west, with fairgrounds and undeveloped land to the east and south.

UT007 is located on the former Defense Distribution Depot Ogden, which is designated by the USEPA as a Superfund NPL site due to areas of soil and groundwater contamination. The LTA is not located on or near contaminated areas. The Defense Distribution Depot Ogden was established in 1940. During World War II, a prisoner of war camp occupied much of the area that is now the LTA. The land was used for grazing and/or agriculture between 1870 and 1940, and again from about 1950 through 1978.

### 3.11.2 Geological Resources

#### Physiography and Geology

This site resides in the Basin and Range Province. This province is characterized by steep mountain ranges with long, flat basins (NPS, 2018). The topography and dry climate create a variety for features and landscapes such as pediments, alluvial fans, playas, mud flats, salt flats, lakes, sand dunes, cantons, and the Rio Grande Rift.

#### Soils

United States Department of Agriculture Natural Resources Conservation Service's (USDA-NRCS) online web soil survey reports, the site contains the following soils: the Harrisville-Leland complex, 0-1 percent slopes (0.2%); Kidman fine sandy loam, 0-1 percent slopes (0.2%); and Urban land (99.6%).

#### Topography

UT035's topographic setting is relatively flat with an elevation ranging from 4,275 to 4,290 ft. amsl.

### 3.11.3 Water Resources

#### Watershed and Surface Waters

The site resides within the Lower Weber Watershed. There were no surface waters, natural or otherwise, observed on the site during the site visit. The Plain City Canal, a man-made waterway, is located approximately 950 feet to the southwest of the site.

#### Wetlands

Three small wetlands totaling 0.55 acres were observed and delineated during the 2018 natural resources survey update.

**Wetland 1** is classified as a palustrine emergent persistent seasonally flooded/saturated (PEM1E). The wetland is a 0.02-acre concave depression located near Wetland 2. The wetland is dominated by:

- hardstem bulrush (*Schoenoplectus acutus*)
- common teasel (*Dipsacus fullonum*)
- yellow sweet clover (*Melilotus officinalis*)
- narrowleaf cattail (*Typha angustifolia*)

**Wetland 2** is classified as a palustrine emergent persistent semi-permanently flooded (PEM1F). The wetland is 0.11 acres and is located in the northeast corner of the site in a concave area. Hydrology for this wetland appears to be persistent and may have additional input besides precipitation, though no obvious hydrological sources could be found during the survey. The wetland is dominated by Bulrush (*Typha latifolia*) and Purple loosestrife (*Lythrum salicaria*).

**Wetland 3** is classified as palustrine emergent persistent seasonally flooded/saturated (PEM1E). The wetland is 0.42 acres and is located in the southwest corner of the property in a concave depression. There were some invasive species present (perennial pepperweed (*Lepidium latifolium*)).

There are four (4) freshwater emergent wetlands within 1,000 feet to the east and north of the site according to the National Wetland Inventory (NWI) Mapper. There are no NWI mapped wetlands on the site.

#### Floodplains

Floodplain mapping for this site is based on digital Q3 Flood date produced by FEMA. At this time, the FEMA mapping area that covers the site (FEMA Map 49057C0200E) indicates that the site is located in an area with minimal flood hazard; there are no floodplains on the site.

### 3.11.4 Cultural Resources

A subsurface archaeological inventory was conducted for the Ogden complex in 2004. Two archaeological resources, (42WB420 and 42WB421) were identified and determined to be not eligible for the NRHP. No additional archaeological investigations at these facilities are warranted. SHPO concurred with these determinations per correspondence on January 18, 2005. The presence of undisturbed cultural resources on the LTA is unlikely, yet possible. Prior to any ground disturbing activities, the most current ICRMP should be consulted to follow SOPs and for compliance with the NHPA.

The 2015 – 2019 ICRMP for facilities located in Utah will be furnished upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Cultural Resources\ICRMPs\UT\2015-2019 UT ICRMP Update. The 2021-2025 ICRMP Update is currently in development.

### 3.11.5 Biological Resources

#### Land Cover and Ecological Communities

Land Cover and Ecological Communities	Area (Acres)	Percent of Site
Buildings	1.77	1.28
Pavement	52.3	37.91
Emergent Wetlands	0.55	0.40
Grassland/Prairie	83.33	60.41
<b>Total</b>	<b>137.95</b>	<b>100</b>

#### Vegetation Communities

Three vegetation communities dominate the site: maintained grass, wetlands, and large open grasslands/prairie. During the surveys of these communities:

No listed, candidate, federal, state, or Army species-at-risk plants were observed during the field survey.

The grass areas near the buildings contained a mixture of the following:

- green ash (*Fraxinus pennsylvanica*)
- Juniper (*Juniperus spp.*)
- Utah honeysuckle (*Lonicera utahensis*)
- ornamental pear (*Pyrus calleryana*)

The large open grassland/prairie areas behind the buildings contained:

- alfalfa (*Medicago sativa*)
- quack grass (*Elymus repens*) (invasive exotic species)
- yellow star-thistle (*Centaurea solstitialis*) (invasive exotic species)
- dyer's woad (*Isatis tinctoria*) (invasive exotic species)

The wetland plant community was dominated by invasive species, making the wetlands relatively poor habitat and lacking in diversity. The most common invasive species throughout the wetlands included:

- narrowleaf cattail (*Typha angustifolia*)
- common teasel (*Dipsacus fullonum*)
- hardstem bulrush (*Schoenoplectus acutus*)

## Wildlife

Bird surveys were conducted on the morning of September 25, 2018. Count stations were positioned where food, water, and habitat sources were present. These areas included: the open prairie near the front of the LTA, Wetland 2, and Wetland 3 near the Russian olive trees.

Birds observed included:

- Grasshopper sparrows (*Ammodramus savannarum*)
- American kestrel (*Falco sparverius*)
- Black-billed magpies (*Pica hudsonia*)
- Sage thrashers (*Oreoscoptes montanus*)
- Canada geese (*Branta canadensis*)
- Brewer's blackbirds (*Euphagus cyanocephalus*)
- Flickers (*Colaptes spp.*)
- Meadowlarks (*Sturnella spp.*)
- Chickadee (*Poecile atricapillus*)
- Seagull (spp.)

During the field survey signs of coyotes and other mammals (raccoons, rabbits, foxes) including their scat and footprints were observed. The open grassland and wetland areas may provide limited habitat for wildlife species.

### Listed Species

The Natural Resource Survey updates process includes investigation into the potential for presence or absence of local, state, federal threatened and endangered species along with Army Species at Risk (SAR) is fully evaluated and researched. Threatened and Endangered species presence or absence was established through the 2018 site visit and the USFWS's iPac system.

**No plant or wildlife listed species or SAR were observed onsite during the 2018 NR survey or has the potential to be located within the site's property limits due to lack of suitable habitat.**

The completed 2018 Natural Resource Survey for this site provides a full list (as of the date of publication) of the known species that are identified on the local, state, federal and Army SAR lists with the potential to be located on the site. (AEM, 2018a) The 2018 Natural Resource Survey will be provided upon request or may be found on the P-drive at: P:\DPW\Environmental Archive\Environmental Programs\Land Resources - ARCHIVE\NR Surveys\FY18 NR Surveys\Final Reports\UT007 Browning ARC

### 3.11.6 Outdoor Recreation, Public Access, and Agricultural Outleasings

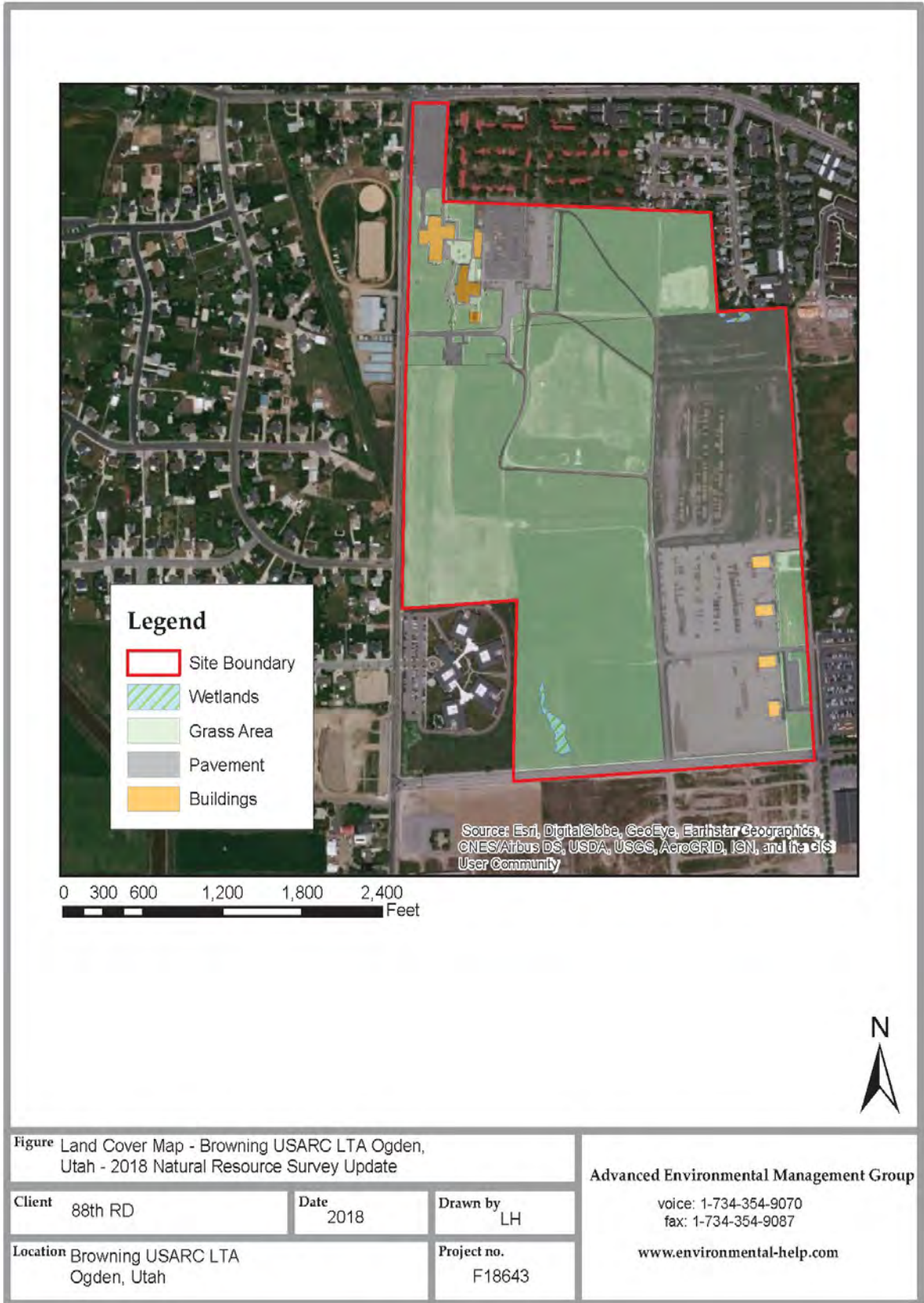
There does not appear to be any opportunities for outdoor recreation, public access, and agricultural outleasings on this site area. The site lacks aesthetic natural communities, hunting or fishing areas, or sufficient area for crop agriculture.

### 3.11.7 Management Concerns and Issues

During the field survey, some nuisance and invasive exotic species were noted within the wetland areas (perennial pepperweed and common teasel) and throughout the grassland/prairie. The invasive exotic species (quackgrass, yellow starthistle, field bindweed, dyers woad, and perennial pepperweed) at UT035 do not currently present a management issue.

### 3.11.8 Special Interest Areas

No special interest areas occur within 1,000 feet of the site.



**Figure 3.9 Site Map – UT035/49676**

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## 4.0 Management Actions

This section describes the approach to management of natural resources found on 88th RD sites in USFWS Interior Region 5/7. In accordance with DoD and U.S. Army policy, the USAR manages natural resources using an ecosystem management approach. That approach is based on establishing broad goals and objectives designed to meet those goals, implementing projects, and monitoring their success using quantifiable metrics. The success of this process is predicated upon the receipt of adequate funding to enact designated projects.

**“A country worth defending is a country worth conserving.”**

*– Major General Michael Lehnert, Commanding General,  
Marine Corps Installations West 2005-2009*

### 4.1 Management Strategy

The 88th RD works to ensure that training activities are carried out in an environmentally responsible manner, whether the property is owned or leased by the 88th RD, and that natural resource management efforts along with environmental stewardship help to ensure the long-term sustainability of these lands for training. Within USFWS Interior Region 5/7, the 88th RD's LTA training sites are not included in their real estate portfolio, this means that where the 88th RD is a tenant they are not responsible for acquiring the Department of the Army reporting requirements but are required to assure good stewardship. The 88th RD will request copies of the associated INRMPs to ensure activities are coordinated and that the actions in the installation's INRMP are supported.

As introduced in Section 1.3, the overall goals for natural resources management on all 88th RD lands within USFWS Interior Region 5/7 are to:

- Provide quality natural resources on training areas as a critical training asset upon which the military mission of the 88th RD is accomplished.
- Manage natural resources on 88th RD property and land, owned or leased, to assure good stewardship of public lands entrusted to the care of the Army.
- Comply with laws and regulations that pertain to the management of 88th RD land and its natural resources.

Objectives are organized by resource and numbered sequentially. Specific projects designed to achieve each objective are listed in subheadings beneath each objective (for a complete list, see Appendix C). These projects are intended to be Environmental Program Requirements submissions to integrate implementation of this INRMP to the budget process (see Section 5.3.2, *Environmental Program Requirements*).

Each project has a summary description at the beginning of the Proposed Management section. The format is as follows:

**Project:** Title

**Military Readiness Impact:** Potential positive impacts of project in supporting the military mission (e.g. construction planning, training land management, facilitates equipment maintenance, etc.)

**Legal/Policy Justification:** Laws, regulations, or policy compliance (e.g., participation in regional initiatives; Sikes Act, Endangered Species Act, AR 200-1, stewardship)

**Funding Priority:** Proposed or actual budget classification

**Project Timing:** Dates to be accomplished, by objective (e.g., 2021, 2021-2023, indefinitely, uncertain)

**Regulatory Coordination:** Agencies with whom coordination is required

Many actions that directly or indirectly affect natural resources management on 88th RD sites are common to all sites. Some actions are site-specific, and have specific projects identified.



## 4.2 Common Management Actions

This section presents management objectives that are common to USFWS USFWS Interior Region 5/7 88th RD owned or leased sites. Projects are described in a goal(s)-objective(s) format to provide process descriptions that are compatible with adaptive management analyses and overall INRMP implementation monitoring processes. For a list of planned projects by fiscal year, see Appendix C. Project execution is contingent upon receipt of funding.

### 4.2.1 Agricultural Leases (AGLEASEIMPL)

Agricultural outleasing programs have been implemented at the Sunflower LTA (KS031/20790) and Mead LTA (NE010/31895). These sites have sufficient land cover to warrant programs that are compatible with mission operations and that support conservation compliance, sustainability, and natural resources stewardship. Revenues generated from these reimbursable programs are used to maintain and improve environmental management, and agricultural management on the sites.

#### 4.2.1.1 Proposed Management

**Project:** AGLEASEIMPL – Agricultural Outleasing Implementation

**Military Readiness Impact:** Maintain access to sites and training lands for military purposes.

**Justification:** Maintaining the capability of training lands to support the military mission (Sikes Act); compliance with the ESA and other wildlife-oriented laws

**Funding Priority:** Class 0

**Project Timing:** Goal 1:

**Objectives:** All objectives on an as needed basis

**Regulatory Coordination:** None

**Goal 1.** Administer an agricultural outleasing program that provides a direct benefit to the mission and the environment.

**Objective 1.** Maintain outleases for sites.

**Objective 2.** Monitor land to ensure outlease terms are in effect and that degradation does not occur.

**Objective 3.** Use revenues generated from the agricultural outleasing program to maintain, improve, or rehabilitate previously degraded ecosystems on the sites.

**Objective 4.** Control regulated noxious weed (i.e. Canada thistle)

### 4.2.2 Conservation Awareness (TRNGCNS, EARTHDAY)

Conservation awareness is instrumental to managing natural resources. The 88th RD's approach to awareness places emphasis on education, providing military personnel and the public with insights into the 88th RD's conservation challenges, with the intent that the more military personnel and the public knows about the 88th RD's natural resources, they will act more responsibly towards them. Both the public and the military need to understand the lead role that today's USAR is taking as a good steward of the land. They need to know what partnerships and cooperative agreements have been forged and what actions are being taken to both enhance and protect natural resources in the 88th RD.

Education promotes awareness of critical environmental projects and the rationale behind them. Activities such as noxious weed management, erosion control, wildlife protection, etc. can be accomplished with little conservation awareness effort since soldiers and the general public naturally supports these easily understood efforts. However, issues such as protection of sensitive areas for little understood plant and wildlife species, restrictions on troop field operations, and restrictions on



cutting and digging require effective conservation communication to get positive support and, perhaps more importantly, to avoid adverse reactions from various users. A conservation awareness program directed at both the external public interests and military personnel if it is to be effective.

Military training use brochures could contain training land sustainment restrictions for LTAs. Brochures (or handbooks as they are commonly called within the ITAM program) could be focused toward non-commissioned officers and officers who are leaders in their units. Brochures could cover soldiers' responsibilities to help the 88th RD comply with applicable environmental laws. Brochures could also cover environmental procedures for field training exercises, such as maneuver damage prevention, spill procedures, spill prevention procedures, earth moving procedures, etc. Brochures sized to fit in a soldier's cargo pocket for ease of access and use. Soldiers training cards focused toward the individual soldiers, would summarize environmental requirements of field training in simple bullet form, and would contain a map of LTAs showing wetlands and other restricted training areas. These cards potentially printed on a waterproof material, such as Tyvek, so it can fit in a soldiers pocket and not disintegrate during training exercises.

This project to supports Earth Day and provides education and awareness to the Army Reserve and community in the 88th RD 19-state AOR. This small program is the 88th RD's main opportunity to make the community aware of the Army Reserve's environmental program. FY20 Requirements: Support Earth Day event at 7 locations in the 19-state AOR.

#### **4.2.2.1 Proposed Management**

**Project: TRNGCNS** – Training to Support Conservation Awareness, **EARTHDAY** – Provide Earth Day education and awareness to 7 locations in the 19-state AOR.

**Military Readiness Impact:** Enables continual access to natural resources for training and improves public relations

**Justification:** Stewardship, Army policy

**Funding Priority:** Class 3

**Project Timing:** All objectives – ongoing or as needed

**Regulatory Coordination:** None required

**Goal 1.** Provide an understanding of 88th RD natural resources programs.

**Objective 1.** Review, update, and distribute natural resources information associated with the 88th RD LTAs.

**Objective 2.** Integrate pertinent natural resources into the 88th RD Training Program and provide training.

**Objective 3.** Create, print, and make available LTA informational materials to the LTA users.

**Objective 4.** Provide education materials and awareness materials to 7 locations within the 88th RD's 19-state AOR.

#### **4.2.3 Cultural Resources Protection**

The mission of the 88th RD Cultural Resources Program (CRP) is to facilitate compliance with applicable legal requirements to maintain the availability of Army Reserve owned, leased, and permitted buildings and lands necessary to sustain a state of combat readiness. Cultural resources are defined as historic properties in the NHPA, as cultural items in the NAGPRA, as archaeological resources in the ARPA, as sacred sites (to which access is provided under the AIRFA) in EO 13007, and as collections and associated records in 36 CFR Part 79. Requirements set forth in NEPA, NHPA, ARPA, NAGPRA, AIRFA, 36 CFR Part 79, EO 13007, and their implementing regulations define the compliance responsibilities of the USAR for management of cultural resources. Regulations applicable to the USAR's management of cultural resources include those promulgated by the ACHP (36 CFR Part 13 800) and the National Park Service (NPS).

The 88th RD Senior Commander has responsibility over the extant inventory of 88th RD-managed cultural resources within the states in its area of operation, including historic structures, archaeological sites, and archaeologically sensitive areas. Integrated Cultural Resources Management Plans (ICRMPs) prepared for each state and include plans for cultural resources of each state. The ICRMP is an internal compliance and management plan that integrates the entirety of a state's cultural resource program requirements with ongoing mission activities. The ICRMP provides the 88th RD Managers, leadership with a guide to ensure compliance with historic preservation laws and regulations and a means to measure progress toward achieving outlined objectives. It allows for ready identification of potential conflicts between the 88th RD missions and cultural resources, and it identifies compliance actions necessary to maintain the mission-essential properties and acreage. Each reportable site is discussed individually, including: a brief physical description and historical summary; data regarding cultural resources investigations previously conducted within the site; archaeological and historic architectural resources and historic properties within the site; and planned or scheduled projects and priorities relevant to the next five year period in which the current ICRMP will be in effect.

### **Natural Resources Management Implications and Contributions**

Natural resources management on 88th RD property generally has little potential to affect cultural resources. Conversely, cultural resources management on the land seldom significantly affects natural resources management. The only natural resource practices with the potential to adversely affect cultural resources would be erosion control or wetlands restoration. Erosion control and/or wetlands restoration projects involving excavation, earth moving, and fill deposition can damage or bury archeological sites. Generally, however, effects to archeological sites from reduced erosion are positive.

Even with proper review, natural resources projects still have some potential to affect archeological sites through accidental discovery. If accidental discovery occurs, 88th personnel would follow required procedures to minimize damage to the sites.

Natural resources management can be used to protect cultural resources sites. Sensitive species habitat management usually involves minimizing disturbances, which also protect potential archeological sites from damage. Erosion control projects can be planned to specifically protect sites from erosion.

Integrated Cultural Resources Management Plans (ICRMP's) have been prepared for each state to cover planning, programming, consultation and compliance requirements, please refer to these ICRMPs with associated cultural resource management Standard Operating Procedures (SOPs) as natural resources activities are planned and implemented in USFWS Interior Region 5/7.

#### **4.2.3.1 Proposed Action**

**Project:** CR - Cultural Resources Protection

**Military Readiness Impact:** Maintain access to sites and training lands for military purposes.

**Justification:** Compliance with 54 USC 100101, National Historic Preservation Act of 1966, 25 USC 3001-3013, Native American Graves Protection and Repatriation (1990), various cultural resources laws and regulations, stewardship

**Funding Priority:** Class 0

**Project Timing:** All objectives - ongoing indefinitely

**Regulatory Coordination:** SHPOs, Federally-recognized Tribes, as needed

**Goal 1.** Implement this INRMP in a manner consistent with the protection of cultural resources on 88th RD lands.

**Goal 2.** Comply with the National Historic Preservation Act.

**Objective 1.** Use results of cultural resources surveys and the ICRMPs in coordinating natural resources projects.

**Objective 2.** Avoid or mitigate adverse effects to cultural resources from natural resources management through proper review and early planning. Submit proposed projects as part of NEPA review to Combat Service Support for approval, determinations of effect, and Section 106 consultation, as necessary.

**Objective 3.** Take the following protective measures upon discovery of sites:

- Upon discovery of potential cultural deposits or human remains, cease ground-disturbing activities immediately and report the finding to the appointed Cultural Resources Manager (CRM), the Natural Resources Environmental Protection Specialist, the Natural Resources Environmental Protection Specialist, and the Area Environmental Protection Specialist.
- Wait for approval from the CRM, who will consult with the SHPO and/or Native American Tribes, as appropriate, before resuming activity at the location.
- Consider alternatives for moving the project to another location.
- Implement mitigation measures resulting from agreement documents.

**Objective 4.** If cultural resources are threatened by erosion, use natural resources techniques and projects to protect the resources.

**Objective 5.** When conducting ground-disturbing or other potential undertakings associated with natural resources management, treat National Register sites with undetermined eligibility status as though they were eligible for the NRHP.

#### **4.2.4 Federally Listed Species and Species at Risk Management (ESSRVY)**

The federal ESA of 1973, as amended (Act) requires lands under the jurisdiction of the Department of the Army to conserve listed species. As defined in the Act, conservation is the use of all methods and procedures necessary to bring any listed species to the point where protections provided by the Act are no longer necessary. Section 7 of the Act requires the Army to consult and confer with the USFWS if any action by the Army may affect a listed species or critical habitat.

AR 200-1 (Department of the Army, 2007) states (Section 11-2(a-e)) that the Army has five primary requirements under the ESA:

- conserve listed species,
- do not “jeopardize” listed species,
- “consult” and “confer” with the appropriate agency(ies),”
- conduct a biological assessment<sup>1</sup>, and
- do not “take” listed fish and wildlife species, or remove or destroy listed plant species.

The 88th RD is committed to these five primary requirements.

This INRMP serves to provide *adequate management or protection*, a term that originated in the definition of occupied habitat from Section 3 of the ESA. If *adequate management or protection* is already in place, then additional special management (i.e., critical habitat designation) is not required when lands are found to contain physical and biological features essential to the conservation of the species. *Adequate management or protection* is provided by a legally operative plan that addresses the maintenance and improvement of primary constituent elements important to the species and

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<sup>1</sup> Biological assessments are not always required; they are generally required for major construction and other projects that potentially significantly affect federal-listed species.

manages for the long-term conservation of the species. This reasoning leads to the conclusion made by the USFWS that, where applicable, federal critical habitat designation is not warranted if the INRMP includes the following three criteria:

**1. The plan provides a conservation benefit to the species.**

Cumulative benefits of the management activities identified in a management plan, for the length of the plan, must maintain or provide for an increase in a species' population or the enhancement or restoration of its habitat within the area covered by the plan [i.e., those areas deemed essential to the conservation of the species]. A conservation benefit may result from reducing fragmentation of habitat, maintaining, or increasing populations, ensuring against catastrophic events, enhancing and restoring habitats, buffering protected areas, or testing and implementing new conservation strategies.

**2. The plan provides management plan implementation certainty.**

Persons charged with plan implementation are capable of accomplishing objectives of the management plan and will request funding on an annual basis to try and maintain the objectives of the plan. They have the authority to implement the plan and have obtained all necessary authorizations or approvals. An implementation schedule (including completion dates) for the conservation effort is in the plan.

**3. The plan provides certainty that the conservation effort will be effective.**

The following criteria will be considered when determining the effectiveness of the conservation effort. The plan includes:

- (a) biological goals (broad guiding principles for the program) and objectives (measurable targets for achieving the goals);
- (b) quantifiable, scientifically valid parameters that will demonstrate achievement of objectives and standards for these parameters by which progress will be measured are identified;
- (c) provisions for monitoring and, where appropriate, adaptive management;
- (d) provisions for reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided; and
- (e) a duration sufficient to implement the plan and achieve benefits of its goals and objectives.

**Army Species at Risk (SAR)**

In addition to federally listed species, the 88th RD is committed to actively managing Army SAR, which are those species that would have a significant impact on military missions if federally listed as threatened or endangered. These species may be official candidates for ESA listing, classified by NatureServe as critically imperiled or imperiled on a global scale, and/or a concern for ESA listing in the foreseeable future. The Army's policy is to manage SAR proactively in order to prevent ESA listings that could severely degrade military readiness.

The Army Memorandum, *Army Species at Risk Policy and Implementing Guidance Sept 15, 2006*, describes the Army's management program for SAR. Installations should prioritize Army SAR management requirements within allocated resources to ensure SAR requirements are adequately addressed. However, since this list has not been updated since 2006 the 88th RD will utilize the DOD Species at Risk list that can be found on DENIX (<https://www.denix.osd.mil/nr/home/>). The following criterion will assist in selecting and prioritizing SAR funding.

- From the above memorandum, "Installations may only select SAR for management focus using the list of Army SAR. The species listed are the highest priority Army SAR based on references; considerations in paragraph 7 (of the memorandum); and input from stakeholders."
- The SAR is a high priority species and listing of the species would have a significant adverse impact on the Army's mission. Trainers and testers should assist in determining the degree of mission impact.

- The species meets the definition of a SAR.
- Management of the species onsite and/or offsite could preclude the need to list the species. Conservation efforts for the species could benefit the installation mission by preparing it for a possible listing of the species requirements.
- The level of support from outside agencies, private landowners and/or non-governmental organizations to advance the protection/management of the SAR.
- The installation mission allows for implementing strategies to prevent, or support efforts to prevent, listing the species.
- The percentage of the species found onsite or contiguous to the installation and the quality of the habitat to support the species is significant.
- The percentage of the species found on or contiguous to other Army or DoD installations and the quality of the habitat to support the species is significant.

Where Army SARs are identified, the 88th RD is committed to coordinating with the USFWS to assist in determining the significance of its natural resources for conservation and sustainability of the species. Additional partnering is encouraged for managing Army SAR, such as partnering with State Comprehensive Wildlife Conservation Plans.

### **Other Sensitive Species**

The 88th RD is sensitive to those species listed as endangered or threatened under state law, but not federally listed by interacting with state natural heritage programs.

EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* has requirements for DoD to develop a memorandum of understanding (MOU) with the USFWS for the conservation of migratory bird populations. This MOU is discussed further in Section 4.2.5, *Migratory Bird Management*.

The 88th RD recognizes its commitment to obtaining information regarding Species of Special Concern, particularly as they relate to the use of RD lands and relationships to military use of these lands. It is not suggested that special surveys be conducted or management practices be drastically altered to accommodate these species in the same manner as federal- or state-listed species. As conscientious land and wildlife stewards, however, it is important to exhibit that the 88th RD is aware that these species are potentially declining.

#### **4.2.4.1 Proposed Management**

**Project:** ESSRVY, ESSRVYUP, STATEESSRVY, ESMCPLN, ESCMPLNUP, and ESMCPLNIMPL which includes: Federally Listed Species, State Listed Species, Army Species at Risk (SAR) Surveys, Management Plans, and Implementation

**Military Readiness Impact:** Prevents and mitigates ESA compliance impacts on military activities (e.g. limiting access to training lands to prevent “take”).

**Justification:** 16 USC 1531-1544, Endangered Species Act (ESA) (1973) and 16 USC 670a, Sikes Act and Sikes Act Improvement Act (1997) compliance, AR200-1, stewardship

**Funding Priority:** Class 0

**Project Timing: Goal 1:**

**Objectives:** Federal 1-7 - as needed/identified, ongoing, or in conjunction with PLS;

**Goals 2 and 3:**

**Objectives:** State 1-3 and Army SAR- as needed/identified, ongoing, or in conjunction with PLS

**Regulatory Coordination:** USFWS and state wildlife agency, as required

**Goal 1.** Comply with the ESA regarding federally listed endangered, threatened, or candidate species.

**Objective 1.** Monitor any federally listed threatened, or endangered animal species that are verified on 88th RD owned lands.

**Objective 2.** If any federally listed, proposed, or candidate species are confirmed, consider development of an Endangered Species Management Component Plan (ESMC Plan) that meets the species' needs.

**Objective 3.** If federally listed species are confirmed, update this INRMP to meet the three criteria established by the USFWS with regard to avoiding critical habitat designation as stated in Section 4.2.4.

**Objective 4.** Coordinate with the USFWS, to develop any appropriate ESMC plans, on an as needed basis, for any resident federally listed threatened, endangered, or candidate species and their habitats that are confirmed on 88th RD lands.

**Objective 5.** Coordinate with the USFWS, as necessary, to make 88th RD owned lands available for studies of ESA federally listed, or candidate species and their associated habitats.

**Objective 6.** Monitor off-site research on federally listed endangered, threatened, and candidate species and their habitats that might occur on 88th RD lands and use results of these research projects to improve management programs on 88th RD properties.

**Objective 7.** Encourage 88th RD representatives (federal and contract) to attend various symposia, workshops, and conferences that include research and management of federally listed threatened, endangered, or candidate species that might occur on 88th RD lands and use information to improve management programs on 88th RD properties.

**Goal 2.** Monitor and manage State endangered, threatened, or special status to the degree possible with available funding.

**Objective 1.** Consider state-protected species and migratory bird species act (MBTA) in all 88th RD actions.

**Objective 2.** When possible, use actions designed for federally listed species to protect or manage other sensitive species.

**Objective 3.** Update PLS lists of State natural heritage identified species and subsequently survey for these listed, proposed, and candidate species on 88th RD owned lands.

**Goal 3.** Monitor and manage Army Species at Risk (SAR) status to the degree possible with available funding.

**Objective 1.** Consider Army SAR in all 88th RD actions

**Objective 2.** Update PLS lists of Army SAR species and subsequently survey for these species on 88th RD owned lands.

#### **4.2.5 Forestry Management (FORESTPLN)**

USFWS Interior Region 5/7 Forest management is primarily applicable at KS031/20790, Sunflower LTA, which have established Forest Management Plan. The forest stands that exist on 88th RD lands tend to be in small patches. None of the sites has substantive tracts of forest, and no traditional forest management or timber harvest is currently practiced or needed. In most cases, trees are located on semi-improved grounds and are kept primarily as landscaping.

#### 4.2.5.1 Proposed Management

**Project:** FORESTPLN, FORESTPLNUP, and FORESTPLNIMPL – Forest Planning Updates, and Implementation

**Military Readiness Impact:** Enables forest and tree management to enhance areas for military training and maintains safe urban landscapes on military sites.

**Justification:** Executive Orders 13112 Invasive Species (1999) and E.O. 13751, Safeguarding the Nation from the Impacts of Invasive Species (2016), DODI 4150.07, DoD Pest Management Program (May 2008), Stewardship

**Funding Priority:** Class 0

**Project Timing:** Most goals and objectives are completed annually, or on an as needed basis.

**Regulatory Coordination:** USFWS and state wildlife agencies, if needed.

**Goal 1.** Manage the forest ecosystem to support the military mission and maintain ecosystem integrity.

**Objective 1.** As needed, coordinate any removal of large trees on 88th RD sites with the USFWS and state wildlife agencies to address the potential loss of Bald Eagle roosting/perching sites (potentially relevant at KS031/20790).

**Objective 2.** Conduct tree surveys and develop management plans that are consistent with the protection and conservation of natural resources on 88th RD lands.

**Objective 3.** Implement tree and forestry plans.

**Objective 4.** Review forestry plans annually to create annual work plans.

#### 4.2.6 General Plant and Wildlife Management (ECOSYSTEMGT)

The purpose of habitat management is to improve wildlife populations by managing resources (habitat) upon which they depend. This means, while considering military training and maintenance requirements, evaluating the desirable species access to food, cover, and/or water. Wildlife and habitat management requires analysis of ecological functions utilization and landscape level planning to adjust limiting factors and promote priority endemic species. Species management priorities are based on conservation needs as defined by global, regional, and local abundance; distribution and threats; population trends; importance of areas to species; potential for population and/or habitat management; and human interests.

It is the U.S. Army's policy to assure that planning for soil-disturbing activities includes revegetation with native plant species. This policy implements the Presidential Executive Order (E.O.) 13148 – *Greening the Government through Leadership in Environmental Management* (Office of the President, 2000) and E.O. 13751, *Safe guarding the Nation from the Impacts of Invasive Species* (Office of the President, 2016). These Executive Orders help ensure that soil disturbances do not lead to the spread of exotic and noxious species, such as purple loosestrife (*Lythrum salicaria*), musk thistle (*Carduus nutans*), Canada thistle (*Cirsium arvense*), field bindweed (*Convolvulus arvensis*), leafy spurge (*Euphorbia esula*), etc. Re-establishing native herbaceous species not only prevents the spread of noxious species, but it also enhances wildlife habitat and natural watershed processes.

In June 2014, Presidential Memorandum was issued establishing the Pollinator Health Task Force (Task Force), a Federal interagency body charged with coordinating Federal efforts to promote pollinator health through research, habitat creation, education and outreach, and public private partnerships. In May 2015, the Task Force released its national *Strategy to Promote the Health of Honey Bees and Other Pollinators* and accompanying *Pollinator Research Action Plan*, outlining needs and priority actions to better understand pollinator losses and improve pollinator health.

In September 2018, the DOD issued the *DOD Pollinator Conservation Reference Guide* published and distributed by the Armed Forces Pest Management Board as a technical guidance to recommend

policies and procedures. The guidance provides information on preserving habitat, creating habitat, recommendations for mowing and the use of fire etc.

#### **4.2.6.1 Proposed Management**

ECOSYSTEMGT has the potential to overlap with other projects, particularly *Soils Management* (Section 4.2.2), *Water Resources Management* (Section 4.2.3), *Federal- and State-listed Species Management* (Section 4.2.4), and *Wetlands Management* (Section 4.2.8).

**Project:** ECOSYSTEMGT – Ecosystem Management; NATIVEPLN - Native Species and Plantings

**Military Readiness Impact:** Utilize ecosystem management and native species in mission enhancing compatible locations (e.g. drop zones maintained with native vegetation)

**Justification:** Maintaining the capability of training lands to support the military mission (16 USC 670a, Sikes Act and Sikes Act Improvement Act (1997)), compliance with the 16 USC 1531-1544, Endangered Species Act (ESA) (1973), 33 USC 1251-1387, Clean Water Act (1977), Executive Order 13112, Presidential Memo on native species, and other wildlife-oriented laws; stewardship

**Funding Priority:** Class 0

**Project Timing:** All objectives – indefinitely, as-needed, or in conjunction with PLS

**Regulatory Coordination:** USFWS and state wildlife agencies, if needed.

**Goal 1.** Manage aquatic and terrestrial habitat to support the military mission, maintain and enhance ecosystem integrity, and minimize potential impacts to the quality of wildlife habitat.

**Goal 2.** Partner with USFWS, and state wildlife agencies, to maintain plant and wildlife populations at target levels in accordance with endangered species recovery plans, species priorities, population ecology, population health considerations, and habitat capacities.

**Objective 1.** Investigate potential partnerships with wildlife agencies, LTA landowners, and interested organizations to protect or enhance wildlife habitat and conserve species.

**Objective 2.** Evaluate the need for planning level surveys, to include sensitive species and wetlands, for all 88th RD lands and implement these surveys, if needed.

**Goal 3.** Conduct soil and vegetation restoration activities, when necessary, that maintain plant and wildlife populations in accordance with species priorities, population ecology, population health considerations, and habitat capacities.

**Objective 1.** Use native, non-invasive species to restore soil and vegetative integrity following soil-disturbing projects.

**Objective 2.** Perform revegetation using native, non-invasive species, as needed.

**Objective 3.** Consider native vegetation that would be advantageous to pollinators in all revegetation and restoration projects on 88th RD sites.

#### **4.2.7 Grounds Management Support**

In managing natural resources in urban portions of its sites, the 88th RD acknowledges its responsibilities as listed in Executive Order 13112, *Invasive Species* (Office of the President, 1999), White House Memorandum, *Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds* (Office of the President, 1994), and Council on Environmental Quality (CEQ) *Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes* (2010). The memorandum's requirements include:

- using regionally native plants for landscaping
- using construction practices that minimize adverse effects on the natural habitat



- reduce pollution by reducing the use of fertilizer and pesticides, using IPM, recycling green waste, and minimizing runoff
- implementing water-efficient practices

Trees at Ft. Douglas (UT002/49276), are contributing elements to an eligible historic site or district and their maintenance requires special consideration. The 88th RD conducted a tree survey at this site and developed a tree maintenance plan.

#### **4.2.7.1 Proposed Management**

The Operations Division funds grounds management. Thus, a specific project for grounds management is not required. However, the below goal and objectives that are pertinent to natural resources management are appropriate to list.

**Goal.** Provide support to maintain aesthetically pleasing urban landscapes at 88th RD sites that maintain natural ecosystem functions as much as possible.

**Objective 1.** Maintain records of tree species, location, and condition on 88th RD sites to support stewardship of natural areas.

**Objective 2.** Promote biodiversity through sound ecosystem and habitat management.

**Objective 3.** Provide professional advice to assist the grounds landscaping and maintenance program toward the use of native species.

**Objective 4.** Manage natural resources within the cantonment area to meet appropriate natural resources objectives.

#### **4.2.8 Integrated Natural Resources Management Planning (INRMP, NRSRVY, NRSRVYUP)**

An annual INRMP review, as stipulated in AR200-1(Department of the Army, 2007), is conducted annually by the 88th RD. The list of goals and objectives guide the review and adjust programs, per the adaptive management process. Planning level surveys (PLS) a/k/a Natural Resource Surveys and Updates (NRSRVY and NRSRVYUP) and data analysis are the foundation for effective planning and decision-making. To support the INRMP update, NRSRVYs are reviewed, and updated when necessary, on a 5-year cycle.

#### **4.2.8.1 Proposed Management**

**Project:** INRMPUP - Integrated Natural Resources Management Planning and Updates;  
NRSRVY, NRSRVYUP – Natural Resource Survey (initial)/Updates

**Military Readiness Impact:** Facilitates military planning.

**Justification:** Sikes Act compliance, AR 200-1, stewardship

**Funding Priority:** Class 0

**Project Timing: Goal 1:** **Objective 1:** annually

**Objective 2:** Will take place beginning in 2023

**Objective 3:** PLS/NRSRVYUP will take place on a 5 year cycle when necessary

**Regulatory Coordination:** USFWS and state wildlife agencies

**Goal 1.** Use coordinated planning via the INRMP to fully integrate the natural resources program on 88th RD lands.

**Objective 1.** NRM will review this INRMP annually using project goals and objectives to guide reviews; revise projects and budgets as required; coordinate significant changes with the USFWS and state wildlife agencies.

**Objective 2.** Update the INRMP at least every five years or when major changes are made to the natural resources program; coordinate this update with the USFWS and state wildlife agencies.

**Objective 3.** After initial natural resource survey (NRSRVY) is completed, conduct planning level survey updates (NRSRVYUP) at 88th RD sites on a 5-year cycle when conditions at the site have changed to a degree that a site visit is warranted to monitor trends in natural resource occurrence and extent, and/or plan management actions.

#### 4.2.9 Integrated Training Area Management (ITAM)

According to the Director of Plants and Training the 88th RD is currently part of the sustainable ranges program and does not receive ITAM funding or support.

Integrated Training Area Management (ITAM) is an Army-wide program to provide quality training environments to support the Army's military mission and helps ensure no net loss of training capability (Sikes Act requirement). The ITAM program was initiated when the Army realized their training lands were degrading to the point where they could no longer support mission readiness training. Proper management supporting military mission readiness and other multi-use activities is a challenge unique to Defense among managers of public lands.

The integration of stewardship principles and conservation practices pertaining to training land ensures that Army lands support training missions in a sustainable manner. Force readiness depends on the availability of high quality, realistic training lands. Several documents provide policy and procedural guidance for the ITAM program:

**ITAM Program Strategy** (Department of Army, 1995). The strategy describes roles, responsibilities, and relationships between the functional proponent and supporting organizations, provides an overview of the ITAM policy and guidance, and describes the four ITAM components. The ITAM Program Strategy, along with input provided by Army conservation staff and Land Condition Trend Analysis outcomes, provided the foundation and guidance for the ITAM Regulation (AR 350-4) (Department of the Army, 1998) and the Procedural Manual (Department of the Army, 1999b).

**AR 350-19 – The Army Sustainable Range Program** (Department of the Army, 2005). This regulation establishes policy for the Army's ITAM program under proponent responsibility of the Deputy Chief of Staff for Operations and Plans. It defines Headquarters Department of the Army, Major Army Command, and Installation responsibilities, management requirements, objectives, and general guidance to implement ITAM.

**ITAM Procedural Manual** (Department of Army, 1999b). This document accompanies AR 350-19 (Department of the Army, 2005) and defines Headquarters, Department of the Army, Major Army Command, and installation roles, responsibilities, and Army-wide guidance to implement ITAM. Policies, procedures, and guidance in this manual are essential to achieve and maintain the Army ITAM program. Army mechanisms for program management, review, and information exchange include Program Management Reviews, quarterly newsletters (*The Bridge* published by the Army Environmental Center), the ITAM website, and the annual ITAM workshop.

**Scope of ITAM.** ITAM programs focus on training land management. ITAM funding is not intended to address or correct statutory compliance or conservation requirements, perform routine range maintenance or modification, or replace normal base operations activities on training lands normally funded by the Real Property Maintenance Account (Department of the Army, 1999b).

The ITAM program includes the following five component areas (modified from *Integrated Training Area Management (ITAM) Program Strategy* (Department of the Army, 1995a)):

- The Range and Training Land Assessment, formerly Land Condition Trend Analysis component is used to inventory and monitor physical and biological resources to meet the multiple-use demands on military installations.

- The Training Requirements Integration component integrates military training requirements for land use with natural resources conditions and capabilities to support these requirements.
- The Sustainable Range Awareness, formerly Training Sustainment Awareness and prior to that Environmental Awareness component, improves land user understanding of the impacts of their activities on the environment.
- The Land Rehabilitation and Maintenance component includes programming, planning, designing, and executing land rehabilitation and maintenance to support and sustain the military mission.
- The GIS supports planning decision processes to effectively manage land use and natural resources.

Performing resource sites surveys on an as needed for specific projects. Implementation of the Range and Training Land Assessment program would not be advantageous to management of site resources since the sites can easily be fully surveyed due to small acreages involved for specific military training sites. Thus, the Range and Training Land Assessment component of ITAM is not needed.

Mission planners for each site on a case-by-case basis perform the integration of site military training requirements for land use with natural resources conditions and capabilities. The Training Requirements Integration component of ITAM could be implemented on sites. Army Reserve lands may be required to provide increased training use in the future, which Training Requirements Integration would support.

Military training guides used to produce sustainable Range Awareness to ensure military training according to site-specific restrictions. The Sustainable Range Awareness component of ITAM would implement a mechanism to improve land user understanding of the impacts of their activities on the sites.

Land Rehabilitation and Maintenance is not implemented on 88th RD sites due to lack of ITAM funding. However, all training sites could benefit from Land Rehabilitation and Maintenance programming, planning, design, and execution. Land Rehabilitation and Maintenance projects could be used should such damage occur.

#### **4.2.9.1 Proposed Management**

**Project:** ITAM - Integrated Training Area Management

**Military Readiness Impact:** Maintaining the capability of training lands to support the military mission.

**Justification:** Maintaining the capability of training lands to support the military mission (Sikes Act), stewardship

**Funding Priority:** Not applicable since ITAM programs are currently not environmentally funded

**Project Timing:** All objectives – ongoing and as needed.

**Regulatory Coordination:** None required

**Goal 1.** Provide quality training environments to support the Army's military mission and help ensure no net loss of training capability.

**Objective 1.** Investigate the feasibility of implementing various components of the ITAM program at 88th RD LTA ID016/1692A (Hayden LTA).

**Objective 2.** Survey sites for training-related damage or potential improvements to training lands and develop and implement Land Rehabilitation and Maintenance projects.

## 4.2.10 Invasive Species Management (INV SPLN)

The Invasive Species Management Plans compile data re: species extent, composition, and treatment options / priorities. Species addressed may include those that pose a health and safety risk (i.e. poison ivy, honey locust, etc.) and those regulated by the USDA due to potential to impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources. Both state and federal lists identifying noxious invasive species are consulted.

### Noxious Weeds

Noxious weeds (as determined by applicable regulatory authority) pose threats to native habitats, endangered species, and plant community composition and diversity. More specifically, they threaten wetland ecosystems, complicate land restoration projects, add to the cost of pest management, and in general, threaten ecosystem functionality. Some noxious weeds are directly poisonous or injurious to humans, livestock, and wildlife. Controlling some noxious weed species requires leadership, large implementation areas, coordination, and funding between local communities, state governments and other federal agencies. This reality may limit the control efforts for some noxious invasive species on some 88th RD property. The 88th RD is aware of its requirements to prevent the introduction of invasive species, as well as their control, per Executive Order 13112, *Invasive Species*.

Noxious plant control may be necessary on some 88th RD lands. Monitoring efforts are needed to help determine when control efforts should be undertaken. Control efforts may include the following methods: prescribed burning, mechanical means, and ground applications of herbicides.

Aerial application of herbicides may be considered when it has been determined to be the only practical means for large area control of aggressively invasive/undesirable vegetation and when the window of opportunity is small and unmanageable by ground control techniques.

### 4.2.10.1 Proposed Management

**Project:** INV SPLN, INV SPLNUP, INV SPLIMPL – Invasive Species Management Plan/Update, Implementation - update, Invasive Species Management Plans, updates and Implementation, as well as general Invasive Species Management Support

**Military Readiness Impact:** Ensure invasive species management operations mutually protect natural resources, military personnel, sites while enable military training activities.

**Justification:** Compliance with Executive Orders 13112, EO 13751, Safeguarding the Nation from the Impacts of Invasive Species (2016), Sikes Act

**Funding Priority:** Class 0

**Project Timing:** Goal 1

**Objective 1** – None present in USFWS Interior Region 5/7;

**Objective 2** – None identified in USFWS Interior Region 5/7. ;

**All other objectives** – as needed.

**Regulatory Coordination:** Sikes Act, EO 13751, Local and State invasive/ toxic species management requirements.

**Goal 1.** When funding allows control noxious and invasive plants to support the military mission, promote sustained ecosystem functionality, favor native species biodiversity, and add to the quality of life in the immediate areas surrounding 88th RD lands.

**Objective 1.** Prepare or update Invasive Species Management Plan at locations where control needed.

**Objective 2.** Maintain and update Invasive Species Management Plans at locations where the control of invasive species is needed.

**Objective 3.** Implement the Invasive Species Management Plan and/or in support of the 88th RD DPW grounds services contracts.

**Objective 4.** If pesticides (herbicides) are used, use them in a manner to minimize impacts to sensitive animal and plant species, and follow precautionary statements on labels regarding contamination of water if pesticides are sprayed near wetlands and as prescribed in the Pest Management Plan.

**Objective 5.** Where appropriate, investigate optimal control methods for city-, county-, and state-listed noxious weeds; communicate that information to noxious weed control contractors and implement application.

**Objective 6.** Where appropriate, if state or federally defined noxious weeds are identified during the NRSRVYUP process, work orders will be submitted.

#### **4.2.11 National Environmental Policy Act (NEPA) Implementation**

The National Environmental Policy Act (NEPA) of 1969 requires a federal agency to consider every significant aspect of all environmental impacts for a proposed action. The U.S. Army codified the implementation of NEPA in 32 Code of Federal Regulations (CFR), Part 651; Environmental Analysis of Army Actions; Final Rule, March 29, 2002. The regulation requires the Army to identify significant impacts from proposed actions and to incorporate that information into the decision-making process for implementation of the proposed action. The regulation identifies the screening process and criteria for determining a significant impact and provides the hierarchy for the documentation of the impact analysis.

The 88th RD Environmental Division is responsible for ensuring that the appropriate level of NEPA analysis and documentation is provided for projects, training missions, and other proposed actions. The process of reviewing and preparing NEPA documentation often involves direct coordination with various natural resources partners.

#### **NEPA Documentation**

Three types of NEPA documents are identified in 32 CFR, Part 651: the Record of Environmental Consideration (REC), the Environmental Assessment (EA), and the Environmental Impact Statement (EIS). In 32 CFR, Part 651.33, the regulation lists the INRMP as a plan that normally requires and EA to document the analysis of impacts for all of the proposed actions discussed in the INRMP. Once an EA has been prepared for an INRMP, natural resources activities may be categorically excluded in accordance with 32 CFR 651.29 and 32 CFR Appendix B to Part 651 (d) and documented by a REC (if required) which tiers off the broader analysis of the EA.

#### ***NEPA Implementation***

- The 88th RD Commander will ensure that U.S. Army Reserve actions and activities take into account their impact on the natural environment of the 88th RD property and that decisions regarding such actions and activities will be documented and made available to the interested public.
- An EA was completed on the proposed actions and management activities identified in the 2015-2020 Region 1 INRMP Update. That EA resulted in a FNSI and was finalized in 2016. During the preparation of the EA, the public was invited to comment on the proposed actions and management activities identified in the INRMP Update. Public and regulator comments were considered and/or captured in the final EA/FNSI.
- The proposed actions and management activities identified in this 2021-2025 USFWS Interior Region 5/7 INRMP Update have not significantly changed from the prior version of the USFWS Interior Region 5/7 INRMP and remain similar to the ongoing previously evaluated management activities in the 2016 EA/FNSI. No new properties or significant management activities have

been added to USFWS Interior Region 5/7. Therefore, the 2016 EA/FNSI remains the legally-sufficient NEPA documentation for the 2021-2025 Region 1 INRMP Update document. The analysis of activities that may be categorically excluded (as discussed above in NEPA Documentation) would be documented in a REC (if required) and tiered off the 2016 EA/FNSI.

#### **4.2.12 Natural Resources Enforcement**

Natural resources law enforcement on 88th RD owned and leased lands is usually provided by the state agency responsible for fish and wildlife enforcement in the state in which the properties occur. If enforcement issues involving federal laws were to arise, the USFWS might become involved.

##### **4.2.12.1 Proposed Management**

Natural resources law enforcement is a required element of INRMPs by law; however, a specific project is not necessary since the function is performed entirely by other agencies. However, it is appropriate to list the goal and objective for natural resources-related enforcement on 88th RD lands.

**Goal.** Assure legal compliance of military and civilian activities with regard to natural and cultural resources on 88th RD lands.

**Objective.** If required, support enforcement agencies with regard to natural resources enforcement on 88th RD lands.

#### **4.2.13 Migratory Bird Management (MBTASRVY)**

Active management for birds on 88th RD lands is limited by the lack of substantial native habitat on most sites. With a few exceptions, activities conducted on 88th RD sites have little potential to negatively affect migratory birds. The MBTA of 1918 (16 USC 703-712; Ch. 128; 13 July 1918; 40 Stat. 755) as amended prohibits pursuing, hunting, taking, capturing, killing, selling, transporting, or attempting to do any of the former actions to a migratory bird, or the eggs, nest, or parts of a migratory bird, without a permit. The MBTA lists over 1,000 birds protected under the Act. The MBTA applies only to species native to the United States. The USFWS has authority to implement the MBTA, as described at <http://www.fws.gov/migratorybirds/>.

Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (66 FR 3853 [January 17, 2001]) requires federal agencies to consider effects of their actions on migratory birds. Each federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations must develop and implement a memorandum of understanding (MOU) with the USFWS that promotes the conservation of migratory bird populations.

On September 5, 2014, an updated DoD/USFWS MOU to Promote the Conservation of Migratory Birds was signed (Appendix G), pursuant to Executive Order 13186. In the MOU, the DoD and USFWS state that "it is important to focus on reducing stressors on bird populations, restore, and enhance habitat where actions can benefit specific ecosystems and migratory birds dependent on them, and recognize that actions taken to benefit some migratory bird populations may adversely affect other migratory bird populations."

Some of the DoD responsibilities outlined in the MOU include:

- Following all migratory bird permitting requirements for intentional take;
- Inventorying and monitoring bird populations on DoD lands to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts;
- Incorporating state or regional bird conservation measures in INRMPs;
- Working to protect, restore, and enhance migratory bird habitats, as practicable, on DoD-managed lands, in ways that do not conflict with or impede military training and testing;

allowing the USFWS and other partners reasonable access to military lands (consistent with requirements for safety and national security) for conducting sampling or survey programs; and

- Managing military lands and non-military readiness activities in a manner that supports migratory bird conservation.

In February 2007, the Secretary of the Interior authorized an exemption from the MBTA for the DoD that permits incidental take of migratory birds during military readiness activities. If the DoD determines that a proposed or ongoing military readiness activity has a measurable negative effect on a population of a migratory bird species, the DoD must confer and cooperate with the USFWS to develop reasonable conservation measures to minimize or mitigate effects. Non-military readiness activities are not exempt from the MBTA or EO 13186. The DoD must obtain a Special Purpose Permit for non-military readiness actions involving take of migratory birds.

Existing data and programs facilitate compliance with the MBTA and EO 13186. Conservation priorities are established in the USFWS publication *Birds of Conservation Concern (BCC) 2008* (USFWS 2008), which identifies migratory and non-migratory species at risk due to population declines, naturally small ranges or population sizes, threats to habitat, or other factors. To establish regional conservation efforts, BCCs are identified within USFWS Regions as well as within bird conservation regions (BCRs), which are based on physiography and ecosystem features. The six-state region covered in this INRMP lies within USFWS Interior Region 5/7 and six BCRs: 7, 9, 10, 11, 16, 17, and 18. The purpose behind the BCRs is to:

- facilitate communication among the bird conservation initiatives;
- systematically and scientifically apportion the US into conservation units;
- facilitate a regional approach to bird conservation;
- promote new, expanded, or restructured partnerships; and
- identify overlapping or conflicting conservation priorities.

In August 2018, the Office of the Assistant Secretary issues a “Guidance for Addressing Migratory Bird Management in INRMPS” - This memorandum provides guidance on Addressing Migratory Bird Management in Integrated Natural Resources Management Plans (attached). The Guidance consolidates and clarifies existing bird and bird habitat management requirements that installation natural resources managers must address in their installation Integrated Natural Resource Management Plans (INRMPS). The Guidance also outlines best management practices and provides links to available resources that can be used to facilitate compliance with legal requirements.

The specific legal requirements addressed in this guidance implement the Migratory Bird Treaty Act, Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds." and the Migratory Bird Rule. There is specific emphasis on clarifying application of the Migratory Bird Rule and the readiness authorization - which has been widely but incorrectly perceived as an exemption.

June 2018 DOI Memo Re: “Destruction and Relocation of Migratory Bird Nest Contents” This memo replaces Migratory Bird Permit Memorandum MBPM-2 on Nest Destruction (April 15, 2003) - The purpose of this memorandum is to clarify the application of the Migratory Bird Treaty Act (50 C.F.R. §§ 703-712; MBTA) to the destruction and relocation of migratory bird<sup>1</sup> nests and provide guidance for advising the public regarding this issue. This Memo replaces Migratory Bird Permit Memorandum MBPM-2 on Nest Destruction (Apr 15, 2003). This memo does not supersede or apply to other Federal, State, or Tribal laws and regulations, including the Endangered Species Act (16 U.S.C. §§ 1531; ESA) and the Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d; Eagle Act).

Additionally, the DoD participates in the Federal Partners in Flight (PIF) Program for the conservation of Neotropical migratory birds. The DoD PIF policy is to "promote and support our partnership role in the protection and conservation of birds and their habitats by protecting vital DoD lands and ecosystems, enhancing biodiversity, and maintaining healthy and productive natural systems

consistent with the military mission." Funds to promote the DoD's participation in the PIF Program efforts come primarily from the DoD Legacy Resource Management Program. The DoD bird conservation priorities relevant to 88th RD lands include:

- data collection to support the Monitoring Avian Productivity and Survivorship (MAPS) Program and other regional/national monitoring projects (e.g., Christmas bird count);
- landscape level habitat conservation, especially of native grasslands;
- control invasive and nuisance species, especially feral cats;
- reducing avian mortality at communication towers and transmission lines; and
- responsible use of pesticides and other potential environmental contaminants.

The DoD PIF Program includes four regional working groups. The 88th RD sites addressed in this INRMP are within the West (MT, WY, UT, and CO) and Midwest (KS, ND, NE, and SD) Working Groups. Conservation challenges and priorities are described in the DoD PIF Strategic Plan (2014). The DoD PIF website (<http://www.dodpif.org>) provides an interactive map of BCRs with several lists of bird groups (e.g., game, migratory, non-migratory, shorebirds) in need of conservation for each region. In addition to the USFWS BCCs, the PIF maintains a separate list that prioritizes species for conservation efforts. Many species occur on both the BCC and PIF lists.

State PIF conservation plans (<https://www.partnersinflight.org/resources/partners-in-flight-state-bird-conservation-plans/>) have been developed for Colorado (2000), Montana (2000), and Wyoming (2001), with the exception of Utah. Each plan identifies important habitat types and locations for birds listed as priority conservation species by the PIF. These plans provide specific information on the breeding and wintering status of populations inhabiting each state, and describe specific conservation recommendations for individual species as well as important habitats. The state PIF plans should be consulted for specific conservation activities if sensitive species of birds are identified on 88th RD sites.

#### **4.2.13.1 Proposed Management**

**Project:** Migratory Bird Management (MBTASRVY)

**Military Readiness Impact:** Prevents and mitigates applicable MBTA compliance impacts on military activities (e.g. limiting access to training lands due to a lack of considering impacts on migratory bird species).

**Justification:** 16 USC 703-712, Migratory Bird Treaty Act (1918) and EO 13186 compliance, 16 USC 668-668c, Bald and Golden Eagle Protection Act (1940), 16 USC 670a, Sikes Act and Sikes Act Improvement Act (1997), stewardship

**Funding Priority:** Class 0

**Project Timing: Goal 1:**

**Objectives 1, 2, 4, and 5** – ongoing or as needed;

**Objectives 3** – As needed.

**Regulatory Coordination:** USFWS and state wildlife agency, as required

**Goal 1.** Protect migratory birds on 88th RD lands.

**Objective 1.** Promote and support migratory birds in compliance with the MBTA, EO 13186, and other rules and agreements.

**Objective 2.** Improve awareness of protection afforded to migratory birds, including Bald and Golden Eagles.

**Objective 3.** Perform migratory bird surveys (focusing on the high resource sites especially the LTAs) identifying species presence or absence on 88th RD sites.

**Objective 4.** Consider migratory birds and BCC in all 88th RD LTA actions.



**Objective 5.** Increase awareness of the Partners in Flight (PIF) Western working group and annually review their activities to identify regional efforts that may be supported by the 88th RD.

#### **4.2.14 Pest Management (IPMP)**

The 88th RD has prepared and implemented an Integrated Pest Management Plan (IPMP). Plans are reviewed and updated annually (IPMPUP). The IPMP is to be used as a tool to control pests, reduce reliance on pesticides, enhance environmental protection, maximize the use of integrated pest management techniques, and minimize cost and risk. This plan applies to all activities and individuals working, residing at, or otherwise doing business for the 88th RD. The Plan identifies elements of the program responsibilities, including, human health and safety, environmental sensitivities, pest identification, pest management, and pesticide storage, transportation, use, and disposal. Pest management programs on Army lands are regulated via AR 200-5 (Department of Army, 1999), which includes the Sikes Act, EO 13112, DOD I 4715.3, AND 21 MAR 97, Memo from ASCIM, Federal Insecticide, Fungicide, and Rodenticide ACT- 40 CFR 152, 7 USC 136, and DODI 4150.7.

##### **Insects**

Insect pests can be a general nuisance, carry diseases and/or viruses, and/or pose a threat to habitats and plant community composition and diversity. Examples of insect pests applicable to 88th RD sites include (but are not limited to) mosquitos, ticks, emerald ash borer (*Agrilus Planipennis*), Japanese beetles (*Popillia japonica*), and the elm leaf beetle (*Xanthoglaeruca luteola*). Insect control efforts are not currently anticipated to be necessary on 88th RD lands.

##### **Animals**

Animal pests can be a general nuisance, carry diseases and/or viruses, and/or pose a threat to habitats and plant community composition and diversity. Examples of animal pests applicable to 88th RD sites include (but are not limited to) birds, squirrels, rodents, feral dogs, feral cats, skunks, and opossums. Animal control efforts are not currently required on 88th RD lands in USFWS Interior Region 5/7.

Potential avian nuisance species identified on 88th sites include but are not limited to: European starling (*Sturnus vulgaris*), House sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), and swallows (genus *Hirundo*). Starlings, house sparrow, and pigeon are species not covered under the MBTA and removal of nesting material etc. does not require any permits from the USFWS. Swallows, all swallows along with any species of bird that makes a mud nest is protected by the USFWS under the MBTA and any nest disturbing activities or attempts to remove the bird itself from a location requires permits from the USFWS.

Detailed information on the avian removal process is available in the 88th's Integrated Pest Management Plan (IPMP).

##### **Viruses**

Hantavirus crosses the species boundary from rodent to humans through contact with rodent urine, saliva, or feces. Some strains of Hantaviruses can be fatal in humans. Rodent feces are the primary virus transmission method, control of rats and mice in areas frequented by humans are key for disease prevention.

West Nile Virus, a mosquito born Old World virus first detected in the United States in New York City in 1999, has made rapid geographic expansion and has established itself in new areas enzootic each year. There is no documented evidence of person-to-person or animal-to-person transmission of West Nile Virus. There is no reason to destroy any animal that is detected with West Nile Virus. There is no vaccine, and no effective treatments other than general treatment for viruses are recommended.

Tick borne diseases are becoming more numerous.  
<https://www.cdc.gov/ticks/tickbornediseases/index.html>

Prevention strategies include reducing numbers of mosquitoes (removing standing water and insecticide spraying) and preventing mosquitoes from biting humans. Persons working on natural resources projects in areas suspected of West Nile Virus should use mosquito repellent and use long-sleeved clothing. Insect repellents with DEET (N, Ndiethyl-3-methylbenzamide) are effective against mosquitoes. Products with at least 50 percent DEET have been proven to be more effective than repellants with lower amounts of DEET and those without any DEET. Permethrin, a product with repellent and insecticide characteristics, has been approved for use by the USEPA and is effective if applied to clothing and other fabrics but should NOT be applied to the skin. The 88th RD Pest Management Plan has more detail on West Nile Virus.

## **Environmental Considerations**

The presence of endangered species or species of concern and their habitat, especially amphibian and invertebrate species, requires that special precautions be followed closely during any pest management activities that could affect these species. Wetlands require special precautions if herbicides are used in their vicinity.

### **4.2.14.1 Proposed Management**

**Project:** IPMP, IPMPUP – Integrated Pest Management Plan, update, Invasive Species Management Plans, updates and Implementation, as well as general Pest Management Support

**Military Readiness Impact:** Ensure pest management operations mutually protect natural resources, military personnel, sites while enable military activities.

**Justification:** Compliance with Executive Order 13112, EO 13751, Safeguarding the Nation from the Impacts of Invasive Species (2016)

**Funding Priority:** Class 0

**Project Timing:** **Goal 1 Objective 1** – All Sites

**Goal 2 Objective 1** – None present in Region 1;

**Regulatory Coordination:** Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, Sikes Act, EO 13751

**Goal 1.** Use coordinated planning to fully integrate the 88th RD AOR IPMP program on 88th RD lands.

**Objective 1.** Internally review this IPMP annually using project goals and objectives to guide reviews; revise projects and budgets as required.

**Goal 2.** Control populations of pest insects, animals, and disease vectors at 88th RD sites to maintain human health standards, prevent the degradation of sites and training lands, and minimize threats to habitats and plant community composition and diversity.

**Objective 1.** Monitor and control pest populations at 88th RD sites as needed.

### **4.2.15 Soils Management and Sediment Control (SLSH20MGT)**

Management of soil erosion and sediment runoff is critical to maintaining the functionality of training areas, supporting native vegetation, and protecting water quality. Most states require permits and storm water pollution prevention plans for construction activities that disturb more than one acre of ground.

Disturbance of soils and vegetation during training (e.g., excavating force protection structures or frequent use of bivouac sites) creates potential sources of erosion and sedimentation. Improper recovery after digging also contributes to soil degradation. Inversion of soil layers during digging (i.e., placement of fertile topsoil beneath infertile sub-surface layers) impairs re-vegetation of the recovered area. Eroded soils may restrict use of land by hindering passage of soldiers on foot and in vehicles,

potentially leading to closure of training areas for rehabilitation. Erosion that results in runoff of sediment-laden water to streams potentially affects aquatic biota.

Guidance in AR 200-1 instructs the Army to:

- Maintain in water soil erosion within USDA or NRCS soil surveys tolerance limits.
- Ensure soil sediment in wetlands and waterways is within compliance limits (e.g., Total Maximum Daily Load (TMDLs)).
- Minimize the potential impact of land use on soil erosion and sedimentation when and where possible to include:
  - locating physically intensive land disturbing activities on the least erodible soils; considering seasonal/climatic variations in soil erosion potential when scheduling intensive mission operations and real property management activities;
  - identifying and rehabilitating lands disturbed by operations and real property management activities; and
  - ensuring that turbidity and sediment levels (i.e., from sediment-laden runoff etc.) do not irreparably degrade aquatic biota and habitat from an ecosystem perspective, or significantly impact shallow ground water aquifers.

Many of the 88th RD sites are small and mostly covered with impermeable or semi-impermeable surfaces, the potential for creating bare soil on most sites is minimal. However, awareness of the potential for soil degradation and pro-active management are keys to preventing soil management problems.

Soil conservation and management on 88th RD sites involves the implementation of best management practices (BMPs) commonly recommended by the U.S. Environmental Protection Agency (USEPA), National Pollutant Discharge Elimination System (NPDES). Measures include preventing/minimizing the creation of bare and disturbed soil areas, identifying soil erosion and sedimentation, and restoring areas undergoing or susceptible to erosion and sedimentation.

Soils and vegetation that are disturbed by anthropogenic or natural causes are stabilized and repaired as quickly as possible using methods including seeding, mulching, and applying gravel or geo-textiles. To the extent practicable, installation of semi-permeable surfaces (e.g., gravel) will be preferred over impermeable surface (e.g., asphalt, pavement) to promote natural storm water absorption and drainage.

Soils management and sediment control is primarily accomplished through proper activity review, mission siting, scheduling, identification of soils damage, erosion, and rectification, and where appropriate, working with the lessor or property owner.

#### **4.2.15.1 Proposed Management**

**Project:** SLSH2OMGT - Soils and Water Management

**Military Readiness Impact:** Maintaining the capability of training lands to support the military mission

**Justification:** Maintaining the capability of training lands to support the military mission (Sikes Act), compliance with the CWA, stewardship

**Funding Priority:** Class 0

**Project Timing:** Objectives 1 through 6 - indefinitely, as needed, in conjunction with PLS

**Regulatory Coordination:** U.S. Army Corps of Engineers (CWA) where applicable

**Goal 1.** Ensure protection of all soils on 88th RD lands.

**Objective 1.** Use soil conditions and inventory data to make decisions regarding land use, restoration options, and wildlife habitat management options. Identify soil types and their erosion potential/tolerance levels on 88th RD sites.

**Objective 2.** Monitor 88th RD lands periodically for erosion and effects of erosion control; locate erosion sites for implementation of appropriate erosion control. Develop and implement Soil Erosion and Sediment Control Component Plans when needed.

**Objective 3.** Avoid/minimize disturbance to the ground on 88th RD sites that results in bare soil and potential erosion. Use appropriate erosion and sedimentation control BMPs during all soil disturbing activities. Ensure proper activity review, mission siting, scheduling, and approval of military operations on 88th RD lands to minimize any potential soil damage or future erosion.

**Objective 4.** Inspect LTAs after military operations to identify and rectify soil disturbances in a timely manner.

**Objective 5.** Ensure that graded and disturbed areas on 88th RD lands are revegetated with native species as needed to maintain soil integrity and prevent erosion (see Section 4.2.5, *General Plant and Wildlife Management*).

**Objective 6.** Create a layer in the GIS database that identifies highly erodible soils at each site. Create a separate layer that identifies existing erosion problems.

#### **4.2.16 WATER RESOURCES MANAGEMENT (SLSH2OMGT)**

Groundwater monitoring and drinking water management are not part of the Natural Resources/Conservation responsibilities within the Army and thus are not covered in this INRMP. Surface waters are minimal on 88th RD lands, and there is generally no reason to suspect that water quality parameters in these waters are other than normal for these types of water bodies.

AR 200-1, *Environmental Protection and Enhancement*, (Department of the Army, 2007) establishes the following objectives for water resources on Army lands:

- Conserve all water resources.
- Control or eliminate sources of pollution to surface or ground waters through conventional or innovative treatment systems.
- Demonstrate leadership in attaining the national goal of zero discharge of water pollutants.
- Provide drinking water that meets applicable standards.\*
- Cooperate with federal, state, and local regulatory authorities in forming and implementing water pollution control plans.
- Control or eliminate runoff and erosion through sound vegetative and land management practices.
- Consider nonpoint source pollution abatement in all construction, installation operations, and land management plans and activities.

\*There are currently no drinking water production wells operated by the 88th RD on any of the USFWS Interior Region 5/7 Sites.

##### **4.2.16.1 Proposed Management**

The objectives below are general to other projects, and they do not require funding beyond what is associated with the original project. Thus, a specific project for the use of water quality information for project decisions is not required. However, the below goal and objectives are appropriate to list.

**Project: SLSH2OMGT – Soils and Water Management**

**Military Readiness Impact:** Maintaining the capability of training lands to support the military mission.

**Justification:** Clean Water Act, stewardship

**Funding Priority:** Class 0

**Project Timing:** No projects planned.

**Regulatory Coordination:** Handled by Department of Public Works and Department of Training

**Goal 1.** Protect surface water quality on 88th RD lands.

**Objective 1.** Control or eliminate runoff and erosion that could affect surface waters.

**Objective 2.** Consider non-point source pollution abatement in construction, operations, and land management plans and activities.

**Objective 3.** Use site-specific water testing for natural resources and other programs as needed during the next five years.

**Objective 4.** Use water-related PLS inventory data to make decisions regarding land use, restoration options, and fish and wildlife habitat management options.

#### **4.2.17 Wetlands Management (WTLNDSRVY)**

The U.S. Congress enacted the Clean Water Act to *restore and maintain the chemical, physical, and biological integrity of the Nation's waters*. Section 404 of the Clean Water Act delegates jurisdictional authority over wetlands to the USACE and the USEPA. Waters of the United States protected by the Clean Water Act include rivers, streams, estuaries, and most ponds, lakes, and wetlands. In general, terms, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. The USACE and USEPA jointly define wetlands as *areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetland functions and values include, but are not limited to: groundwater recharge, groundwater discharge, flood flow alteration, sediment stabilization, sediment or toxicant retention, nutrient removal or transformation, production export, wildlife diversity/abundance, aquatic diversity/abundance, uniqueness/heritage, and recreation.

EO 11990, *Protection of Wetlands* (1977) and the Clean Water Act (1977) require no wetland losses on federal lands in the United States. Wetlands on each parcel of land are small and scattered. Although small, these areas are essential to the survival or well-being of many wildlife species. The quality of wetland watersheds affects the quality of wetland plant and animal communities. Protection and maintenance of existing wetlands are the primary thrust of wetland management on 88th RD lands. The 88th RD's management policy is that none of its actions will have an adverse effect on wetlands, either on properties that it owns or upon those that it trains.

The Clean Water Act (1977), Section 404, requires obtaining a permit for any activity that may affect *waters of the United States, including wetlands*. In most cases, the USACE has primacy for administering the Section 404 permitting process. Activities in wetlands that require federal permits include, but are not limited to: drainage, interception of water, placement of fill material into waters of the US, ditching activities through wetlands when the excavated material is not side cast for reuse, mechanized land clearing, land leveling, and dam construction. The USACE permit process requires coordination with the USFWS and SHPO to assess potential impacts to waters of the U.S., protected species, and cultural resources, respectively.

It is incumbent upon the 88th RD to maintain up-to-date and accurate wetland inventory data through Natural Resource Survey Updates and Wetland Delineation Updates. Environmental review is the

primary means of detecting threats to wetlands on 88th RD lands. Should a project impact potentially threaten wetlands the wetland delineation accompanied by a letter would be referred to the USACE to determine if the wetlands impacted by the proposed action are jurisdictional. If jurisdictional wetlands will be implicated, the Section 404 permit application process will establish the extent of the impact, and propose mitigation procedures that will be associated with the issuance of the permit. Wetland-affecting projects require NEPA documentation as per 32 CFR Part 651 – Environmental Analysis of Army Actions (see also, Section 4.2.11, *National Environmental Policy Act Implementation*).

#### **4.2.17.1 Proposed Management**

**Project:** WTLNDSRVY, WTLNDSRVYUP, WTLNDRESTR – Wetlands Surveys, Updates, Management, and Restoration

**Military Readiness Impact:** Prevents and mitigates applicable wetland related compliance impacts on military activities (e.g. limiting access to training lands due to a lack of considering impacts on wetlands).

**Justification:** Compliance with 33 USC 1251-1387, Clean Water Act (1977), EO 11990 Protection of Wetlands (1977), stewardship, AR-200-1

**Funding Priority:** Class 0

**Project Timing:** All objectives – ongoing indefinitely, in conjunction with PLS

**Regulatory Coordination:** USACE (CWA objectives)

**Goal 1.** Where applicable and in conjunction with lessors, establish and maintain a baseline database of wetland resources on 88th RD lands.

**Objective 1.** Use site-specific surveys to evaluate wetland resources, including jurisdictional status, if any wetland impacts are proposed.

**Objective 2.** Map wetlands at 88th RD sites and enter data into GIS databases.

**Goal 2.** Manage wetlands to ensure *no net loss*, per Executive Order 11990.

**Objective 1.** Use the environmental review process to protect wetlands.

**Objective 2.** Provide certified jurisdictional wetland delineation (and permit application, if necessary) if a project is planned in a suspected wetland.

#### **4.2.18 Wildland Fire Management (WLDFIREPLN, WLDFIREPLNUP, WLDFIREPLNIMPL)**

Wildland fire management is an ongoing initiative. It is important to have plans in place for preventing and suppressing wildland fires and for implementing site-specific application of prescribed burns for broader ecosystem management goals. Integrated Wildland Fire Management Plans (IWFMPs) that are compliant and integral with the INRMP, the installations' existing fire and emergency services program plan(s), and the ICRMP were developed for the affected LTAs in 2012.

The 88th RD recognizes and will comply with the 15 March 2021 revised Wildland Fire Guidance Memorandum: “**Army Installation Wildland Fire Program Implementation Guidance**”. Currently the only USFWS Interior Region 5/7, facility to which this may apply is the Mead LTA (NE011) the Mead LTA is currently under assessment to determine if a Wildland Fire Plan is required.

Wildland fire management plans currently exist for these locations. Due to consistent agricultural land use, the need for wildfire management plans for these sites may be discontinued, only if after a professional documented evaluation of the wildland fire risk for the areas is determined to be minimal. If this agricultural lease situation changes for some reason, the reinstatement of wildland fire management plans for ecosystem management prescribed burns may need to be reactivated.

#### 4.2.18.1 *Proposed Action*

**Project:** WLDFIREPLN, WLDFIREPLNUP, WLDFIREPLNIMPL - Wildland Fire Management Plans, Updates, and Implementation

**Military Readiness Impact:** Maintain access to sites and training lands for military purposes.

**Justification:** Maintaining the capability of training lands to support the military mission (Sikes Act); compliance with the ESA and other wildlife-oriented laws; stewardship

**Funding Priority:** Class 0

**Project Timing: Goal 1:**

**Objectives 1 – 3** - As required

**Objective 4** - Reevaluations every 5 years

**Goal 2:** all objectives – Ongoing or as needed

**Goal 3:**

**Objective 1** – When appropriate, annually update wildland fire management plans.

**Objective 2** – As appropriate, based on availability of funding and burn cycle management.

**Objective 3** – Annually, when appropriate.

**Objective 4** – As needed

**Regulatory Coordination:** None

**Goal 1.** Ensure all facilities are appropriately evaluated using the Army Installation Wildland Fire Program Implementation Guidance checklist.

**Objective 1:** Commands are to send a written waiver request along with justification as documented on this determination checklist to Deputy Chief of Staff, G-9 Installation Services, Environmental Division (DAIN-ISE) Wildland Fire Program POC.

**Objective 2:** Upon request approval, DAIN-ISE will provide a documented IWFMP requirement waiver to the Command. Copy of waiver to be kept on file at the installation and Command.

**Objective 3:** Installations that have been waived from IWFMP development will subsequently be removed from annual wildland fire reporting requirements within the Environmental Quality Reporting (EQR) survey structure.

**Objective 4:** Sites that have been granted a waiver should be re-evaluated every five years to ensure hazards and risks have not changed at the site.

**Goal 2.** Prevent and suppress wildfires to protect the quality of military lands and maintain ecosystem biodiversity and military functionality.

**Objective 1.** Suppress wildfires as soon as possible, unless areas are scheduled for prescribed burning.

**Objective 2.** Ensure that firebreaks are properly maintained.

**Objective 3.** Continue agreements with local fire departments to respond to fires and perform suppression activities on 88th RD lands.

**Objective 4.** Develop, implement, and maintain Integrated Wildfire Management Plans (IWFMP) for these sites.

**Goal 3.** Implement a prescribed burning program to maintain and enhance military mission capabilities and enhance ecosystem biodiversity and functionality on 88th RD land.

**Objective 1.** Develop and implement IWFMPs for sites that have acreage in which ecosystem management with prescribed fire is feasible.

**Objective 2.** Implement the prescribed burning program to attain acreage goals for burning, as a major component of the grassland restoration program, and to remove exotic species and control woody vegetation encroachment at each 88th RD site.

**Objective 3.** Where appropriate, develop and/or maintain a long range wildfire management plan for 88th RD sites.

**Objective 4.** Secure burn permits for each 88th RD site as necessary.



## 4.3 Management Objectives - High Resource Sites

This section presents management objectives for each identified 88th RD owned or leased high resource site in USFWS Interior Region 5/7. Projects are described in a goal(s)-objective(s) format to provide process descriptions that are compatible with adaptive management analyses and overall INRMP implementation monitoring processes. All goals and objectives are summarized in Appendix C.

### 4.3.1 Joe P. Martinez ARC/AMSA (CO017/08660)

A forested non-jurisdictional wetland (0.11 acres) exists within the CO017 site boundary. Based on correspondence with the USACE, the forested wetland is not under the jurisdiction of the USACE and has no protections afforded to it; however, to maintain this wetland, early eradication of the invasive species Russian olive is recommended. The species should be eradicated before it spreads to new areas.

Other invasive-exotic species recorded at this site (redstem filaree, downy brome, field bindweed, puncture vine, and common mullein) are present in low densities, and the current level of concern for these species is low.

Black-tailed prairie dog (*Cynomys ludovicianus*) is listed in Colorado as a species of special concern. The state special concern listing does not afford the black-tailed prairie dog any legal protections in Colorado. Approximately 150 black-tailed prairie dogs were observed primarily directly adjacent to the site during the field survey. Should they be needed, management guidelines for black-tailed prairie dogs in Colorado are available at <https://cpw.state.co.us/learn/Pages/SOC-Black-tailedPrairieDog.aspx>. CPW recommends that prairie dog burrows found within this site be collapsed after any lethal management action.

Black-footed ferret is a listed endangered species in Colorado. Previously, the USFWS, in coordination with CPW, had block-cleared the eastern half of Colorado after determining that this area no longer contains any wild free-ranging black-footed ferrets. This changed, however, on October 5, 2015, when ferrets were reintroduced into prairie dog burrows across more than 1,300 acres in the northeast portion of the RMANWR. Black-footed ferrets utilize prairie dog burrows and prairie dogs are their primary diet. As such, potentially suitable habitat exists at CO017, and presence or absence of ferrets should be monitored during the Natural Resource Survey Updates.

#### 4.3.1.1 Proposed Management – Federally Listed Species and Species at Risk Management

In Section 4.2.4, Federal and State-listed Species Management Goal 2 and associated objectives, are relevant to CO017. The following site-specific objectives are supplemental to Section 4.2.4

**Goal 2.** Monitor and manage State endangered, threatened or special status to the degree possible with available funding.

**Objective 4.** Work with site managers to ensure that plans for control of black-tailed prairie dogs are coordinated with relevant state agencies, and that control measures do not conflict with protection status of the species.

**Objective 5.** Monitor possible occurrences of black-footed ferret at CO017 given reintroduction in the surrounding RMANWR during the Natural Resource Survey Updates.

#### 4.3.1.2 Proposed Management – Wetlands Management

In Section 4.2.8, Wetlands Management site-specific management objectives are supplemental to Goal 2.

**Goal 2.** Manage wetlands to ensure *no net loss*, per EO 11990.

**Objective 3.** Re-seed bare and/or disturbed ground with a native seed mix to minimize potential sediment runoff.

#### **4.3.1.3 Proposed Management – Invasive Species Management**

In *Section 4.2.11, Invasive Species Management* a site-specific management objective is added to Goal 2.

**Goal 2.** Control noxious and invasive exotic plants to support the military mission, promote sustained ecosystem functionality, favor native species biodiversity, and add to the quality of life in the immediate areas surrounding 88th RD lands.

**Objective 6.** Eradicate Russian olive from the forested wetland at CO017, as availability of funding allows.

### 4.3.2 Windsor ARC (CO130/08827)

During the 2013 and 2018 field surveys, a semi permanently flooded palustrine emergent wetland (PEM1F) (known as Wetland 2 in the 2018 NRSRVYUP report) was delineated in the southeast corner of CO130. The wetland is approximately 0.11 and in 2018 was part of a larger wetland in 2013, however; in 2018 wetland it was noted that the off-site portion of the wetland has been impacted by off-site construction and is no longer intact. A buried concrete culvert southwest of the wetland appears to supply a small but steady source of hydrology. The original source of the water is unknown. The wetland is hydrologically connected to the Cache La Poudre River via the R4UB stream, which is located within the 1,000-foot buffer of CO130 and therefore may qualify this wetland as a USACE jurisdictional wetland.

To reduce the sedimentation of surrounding water resources before and after construction activities at CO0130, BMPs may include silt fencing around the parking lot perimeter and wattle around drains and culverts. These BMPs should be closely monitored for functionality. If there are anticipated impacts to the on-site wetland, management should consult with the USACE regarding possible permitting requirements and coordinate with storm water staff.

#### 4.3.2.1 Proposed Management – Wetlands Management

In *Section 4.2.8, Wetlands Management* the following site-specific management objectives are supplemental to Goal 2 in Section 4.2.8.

**Goal 2.** Manage wetlands to ensure no net loss, per EO 11990.

**Objective 3.** Should there be any plans to impact or modify Wetland 2 the USACE should be requested to provide a jurisdictional determination of the on-site wetland and surface waters.

**Objective 4.** Re-seed bare and/or disturbed ground with a native seed mix to minimize potential sediment runoff.

### **4.3.3 Colorado Springs ARC (CO147/810123)**

The 2018 field survey identified that much of the land cover consists of very short-grass dry prairie, and there is concern regarding eroding soils and erosion control. In some areas where erosion has taken place, rock has been placed in some of the rills and erosional areas around culverts but these areas are in need of additional erosion control measures. It is recommended that erosion control BMPs on the site be regularly maintained and replaced as the erosion control measures are damaged or washed away.

#### **4.3.3.1 Proposed Management – Soils Management and Erosion Control**

In Section 4.2.2, Soils Management and Sediment Control, Goal 1, Objectives 1-3 are relevant to CO147

#### 4.3.4 Sunflower LTA (KS031/20790)

Captain Creek is listed on the KDHE Clean Water Act Section 303(d) 2018 prioritization list of WQLWs, with the TMDL pollutant listed as E. coli. Atrazine herbicide is listed as a “state impairment” for Captain Creek. ([http://www.kdheks.gov/tmdl/2018/Approved\\_2018\\_303\\_d\\_List\\_of\\_All\\_Impaired\\_Waters.pdf](http://www.kdheks.gov/tmdl/2018/Approved_2018_303_d_List_of_All_Impaired_Waters.pdf)) Therefore, modification of land use/land management (agricultural or outdoor recreational use) should be carefully planned to avoid any increase in E. coli or herbicide loadings to the stream.

Previous natural resource surveys misidentified coral berry (*Symphoricarpus orbiculatus*) as Japanese honeysuckle (*Lonicera japonica*). Coral berry is native to Kansas and does not pose an issue at the site. No Japanese honeysuckle was found on the site during the 2019 survey.

In the herbaceous layer invasive-exotic species Johnson grass (*Sorghum halepense*) and smooth brome (*Bromus inermis*), were identified at this site at low density. These species may be monitored to ensure they do not increase in coverage, however during the 2019 field survey neither species required removal actions at this time.

The 2015 – 2020 USFWS Interior Region 5/7 INRMP reported that potentially suitable habitat for the federally endangered Mead’s milkweed (*Asclepias meadii*) and state threatened eastern spotted skunk (*Spilogale putorius*) exists in the grassland areas in the western portion of the site, and the spotted skunk in the riparian areas along Captain Creek and its tributaries. To ensure compliance with these regulations, coordination with the USFWS and KDWP is required prior to development of areas considered potentially suitable habitat for these species. This coordination may include the need for presence/absence surveys. In 2019 surveys were conducted for both species and neither were found at KS031.

In the 2015 - 2020 Region 5 INRMP, potentially suitable habitat for the redbelly snake (*Storeria occipitomaculata*) and the smooth earth snake (*Virginia valeriae*) was identified to exist in the forested areas in the eastern portion of the site, and in the riparian areas along Captain Creek and its tributaries. For both of these species the determination was made that these species are: not federally listed species, and KS031 is located on the edge of their range so the likelihood of their presence on the site is very low. Therefore, the determination was made that the limited resources that are available to the 88th RD would not be adequately served in surveying for these species.

In 2016, surveys were conducted for the northern long-eared bat (*Myotis septentrionalis*). The bat survey yielded no captured individuals and concluded probable absence, but this survey is too old to be valid for actions that would require a species survey such as timber harvest. Per the 2016 report, habitat is present, but species numbers have been reduced to low levels such that capture may be unlikely. Follow-up survey was funded in FY19 and the survey will be conducted in the summer of 2020. The acoustic bat survey conducted at Sunflower (KS031) in 2020 the federally endangered gray bat (*Myotis grisescens*) identified. Sunflower is at the species' approximate western limits for the typical range which is predominantly in the southeastern United States. The gray bats were likely using this habitat solely for foraging as they roost exclusively in limestone karst caves year round. No such caves are located on site.

The tall grass prairie and woodlands present on KS031 is desirable habitat for migratory bird species for feeding, resting, and nesting. During early spring and fall, the site provides a large enough area for stop over for a number of song-bird species. The lack of standing water in the wetlands does not provide an important stop over area for waterfowl or wading birds; however, some small numbers of ducks may utilize Captain Creek.

KS031 is used occasionally for training involving helicopters. In the future, after coordination with the helicopter units using the area, a site visit may be accomplished to make a preliminary determination whether further investigation into the need of a site specific Bird Air Strike Hazard (BASH) prevention program is necessary.

Agricultural outleasing at KS031 has been taking place on the site since 2017, and the leases are scheduled for renewal in 2021. It is anticipated that outleasing of KS031 will continue into the future.

Lease benefits include; generating income, controlling noxious weeds, and providing a safe and stable training surface. Poor crop management may lead to an increase in invasive plant and animal species, soil erosion, and nutrient depletion. Systems should be put in place to assure maintenance of fertility levels throughout the contract period of agricultural leases. Weed management performance standards must be monitored. These requirements should also be incorporated into the lease contract and assessed by the Contracting Officer's Representative (COR).

#### **4.3.4.1 Proposed Management – Federally Listed Species and Species at Risk Management**

In Section 4.2.4, *Federally Listed Species and Species at Risk Management* the following site-specific management objectives are supplemental to Goal 1.

**Goal 1.** Comply with the ESA regarding federal-listed endangered, threatened, or candidate species.

**Objective 6.** A Northern long-eared bat survey was funded in FY19, field work will take place in summer 2020.

#### **4.3.4.2 Proposed Management – Migratory Bird Management**

Section 4.2.5, *Migratory Bird Management*, **Goal 1** and associated **Objectives** are relevant to KS031.

#### **4.3.4.3 Proposed Management – Plant and Wildlife Management**

Section 4.2.6, *General Plant and Wildlife Management*, Goal 2, Goal 3, and associated objectives from, are relevant to KS031. The following site-specific objectives are added.

**Goal 2.** Partner with USFWS, state wildlife agencies, and LTA landowners to maintain plant and wildlife populations in accordance with endangered species recovery plans, species priorities, population ecology, population health considerations, and habitat capacities.

**Objective 4.** If a new boundary fence is planned for Sunflower LTA, coordinate throughout the project with 88th RD Natural Resources Specialists to ensure natural resources concerns are addressed.

**Objective 5.** Conduct a Captain Creek fish survey to identify species observed in 2013, as funding allows.

**Goal 3.** Conduct soil and vegetation restoration activities, when necessary, that maintain plant and wildlife populations in accordance with species priorities, population ecology, population health considerations, and habitat capacities.

**Objective 4.** Avoid or minimize impacts to riparian woodlands and rock outcrops associated with Captain Creek at KS031 as well as riparian areas at all 88th RD sites.

#### **4.3.4.4 Proposed Management – Invasive Species Management**

Section 4.2.11, *Invasive Species Management*, **Goal 2** and associated **Objectives**, are relevant to KS031.

The following site-specific objective is added to Goal 2.

**Goal 2.** Control invasive plants to support the military mission, promote sustained ecosystem functionality, favor native species biodiversity, and add to the quality of life in the immediate areas surrounding 88th RD lands.

**Objective 7.** Monitor the extent of dominant invasive species (garlic mustard and Johnson grass). If the species is observed to be spreading, eradication may be necessary in the future.

#### **4.3.4.5 Proposed Management – Agricultural Outleasing**

Goal 1 and associated objectives from Section 4.2.16, *Agricultural Leases*, are relevant to KS031.

#### 4.3.5 Mead LTA (NE010/31895)

The 2019 wetland delineations, identified 21 total wetlands, whereas the 2013 NE010 field survey, identified 12 wetlands. Based on no positive nexus to waters of the United States, all twelve wetlands are not likely federally jurisdictional. Final jurisdictional status is under the purview of USACE and the Nebraska Department of Environment and Energy (NDEE). If USACE determines the wetlands to be jurisdictional under Section 404 of the CWA, a Section 404 permit from USACE and a Section 401 Water Quality Certification (WQC) from NDEE would be required for any proposed impacts. If any of the wetlands be determined isolated, and therefore not regulated under the CWA, coordination with NDEE would be required for any proposed impacts to avoid violation of state water quality standards. Delineations at these sites have yielded a delineation map will become part of the agricultural lease contract.

Wetland 4, a high functioning wetland, is located along the northern property limits connected to wetland 5 by an ephemeral stream. This wetland has been disturbed but has standing water and wet plants. Wading birds such as buff breasted sandpipers and upland sandpipers were observed, and there is potential for migratory bird stopover use. During the 2019 field survey, several flock of ducks were observed in the NWI wetland immediately off site to the west and it is likely these flocks may stop at wetland 4 as well. Additionally, deer, bobcat, fox, raccoon, coyote, and pheasant tracks were observed near this wetland, and a greater prairie chicken was heard calling offsite from this site to the north during the NRS visit in October of 2018.

The populations of the numerous invasive-exotic species pointed out in the 2015 - 2020 USFWS Interior Region 5/7 INRMP has been remedied by the agricultural lease and is monitored through the USACE COR.

Based on the diversity of habitat at the site, it is likely used as resting and feeding habitat for migratory birds. Management should consider a bird survey to determine the use of the site by migratory birds.

The 2015 – 2020 USFWS Interior Region 5/7 INRMP identified potential suitable habitat for the federally listed northern long-eared bat (*Myotis septentrionalis*) and narrowleaf paleseed (*Leucospora multifida*) at NE010. The Northern long-eared bat survey was funded in FY19 and the actual survey will take place in the summer of 2020. As of 2020, the narrowleaf paleseed is not listed as T&E federally or in the state of Nebraska and no further surveys are scheduled.

In 2019 Endangered Species Surveys (ESSRVY) were carried out for the Salt Creek Tiger Beetle (*Cicindela nevadica lincolniiana*) and the Western Prairie Fringed Orchid (*Platanthera praeclara*). Surveys were completed and no individuals of these species were observed.

Typical conservation measures to avoid adverse impacts to the northern long-eared bat include avoiding the loss of riparian woodland and woodlot habitat that is suitable for the bats. If tree clearing is necessary for any reason, the Nebraska Game and Parks Commission recommends tree clearing activities be timed to avoid potential impacts to the bat during the summer maternity roosting period of June 1-July 31.

Agricultural leasing at NE010 began in 2015 and includes alfalfa production and corn crops. Ag-leases are for five-years, the current lease that expired in FY19 has been extended one year through the 2020 agricultural season with new five-year leases expected at the end of FY21.

Poor crop management may lead to an increase in invasive plant and animal species, soil erosion, and nutrient depletion. Systems should be put in place to assure maintenance of fertility levels throughout the contract period of agricultural leases. Weed management performance standards are incorporated into the lease contracts. These requirements should also be incorporated into the lease contract and assessed by the Contracting Officer's Representative (COR).



#### **4.3.5.1 Proposed Management – Federal and State-Listed Species Management**

Section 4.2.4, *Federally Listed Species and Species at Risk Management*, Goals 1 and associated objectives, are relevant to NE010. The following supplemental site-specific objectives are added.

**Goal 1.** Comply with the ESA regarding federal-listed endangered, threatened, or candidate species.

**Objective 6.** Conduct a survey for Northern long-eared bats.

**Objective 7.** Prepare an ESMC for the Northern long-eared bat, if necessary.

#### **4.3.5.2 Proposed Management – Migratory Bird Management**

Section 4.2.5, *Migratory Bird Management*, Goal 1, and associated objectives from are relevant to NE010.

#### **4.3.5.3 Proposed Management – Plant and Wildlife Management**

Section 4.2.6, *General Plant and Wildlife Management*, Goal, and associated Objectives are relevant to NE010.

#### **4.3.5.4 Proposed Management – Wetlands Management**

Section 4.2.8, *Wetlands Management*, Goal 2, and associated Objectives are relevant to NE010.

#### **4.3.5.5 Proposed Management – Agricultural Outleasing**

Section 4.2.17, *Agricultural Leases*, Goal 1, and associated objectives are relevant to NE010.

#### **4.3.6 Stephen A. Douglas Armed Forces Reserve Center (SADAFRC) (UT002/49276)**

Invasive species were observed in low densities throughout UT002. Field bindweed (*Convolvulus arvensis*), was observed on-site. This species is a Utah State Noxious Weeds in certain counties in Utah, including Cache County. At the time of the 2019, the field survey noted that the bindweed infestation was in low density.

The presence of green ash trees was observed at UT002 on the northern end of the property. The green ash trees may be at risk from the emerald ash borer if this insect spreads to Utah in the future. Tree health should be monitored to detect the presence of the emerald ash borer.

The Ft. Douglas Tree Management Plan, completed in 2018, identifies the tree condition and tree replacement opportunities to maintain their long-term viability. Treat the historic old-growth trees at Fort Douglas are an integral part of the historic landscape and character of the main cantonment area, and as such as contributing resources to the NHL and the NR historic districts.

##### **4.3.6.1 Proposed Management – Invasive Species Management**

Section 4.2.11, *Invasive Species Management*, Goal 1 and associated Objectives 5 is relevant to UT002.

##### **4.3.6.2 Proposed Management – Cultural Resources Protection**

Section 4.2.15, *Cultural Resources Protection*, Goals 1 and 2, along with the associated objectives are relevant to UT002.

### **4.3.7 Browning Ogden LTA (UT007/49676)**

Between 2015 – 2020 USFWS Interior Region 5/7 INRMP and the 2021 – 2025 USFWS Interior Region 5/7 INRMP the Ogden LTA (UT035) and the Frank M. Browning USAR Center (UT007) have combined into one site, UT007/49676.

Three wetland areas have been identified within UT007. Where practicable, impacts to wetlands should be avoided. Unavoidable impacts will be assessed and properly mitigated.

Invasive exotic species are the dominant vegetation at this site were recorded, including, dyer's woad (*Isatis tinctoria*), quack grass (*Elymus repens*), and yellow starthistle (*Centaurea solstitialis*)

Green ash trees (*Fraxinus pennsylvanica*) may be at risk from the emerald ash borer if this insect spreads to Utah in the future. Tree health should be monitored by visual inspection of tree damage to detect the presence of the emerald ash borer.

Although two archaeological resources, (42WB420, and 42WB421) were identified and determined to be not eligible for the NRHP and no additional archaeological investigations at this property are warranted, cultural resources originating from historic use of this area are potentially present. Therefore, users of UT007 should be follow the ICRMP SOPs that describe how to properly manage an incidental discovery of buried cultural resources.

#### **4.3.7.1 Proposed Management – Migratory Bird Management**

Section 4.2.5, *Migratory Bird Management* Goal 1 and associated objectives, are relevant to UT007. The following site-specific objective is added.

**Objective 6.** Determine whether activities at UT007 have potential to cause a measurable negative effect on migratory birds, bald eagles, or golden eagles.

#### **4.3.7.2 Proposed Management – Wetlands Management**

Section 4.2.8, *Wetlands Management*. Goals and Objectives are relevant to UT007

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## 5.0 Implementation

This section of the INRMP provides further detail on resources and processes for implementing this INRMP, including personnel, partners, projects and funding, and monitoring and review.

### 5.1 Organization and Personnel

This plan is only as good as the 88th RD's capability to implement it. This INRMP was prepared with a goal of 100 percent implementation. Below are described the organization, personnel, and funding needed to implement the management actions described in Section 4.0.

#### Organization

The 88th RD's Environmental Division has the responsibility of implementing this plan, operating under a number of policies, and budgetary constraints. The 88th RD can implement much of this INRMP and fulfill general goals and policies established in Section 1.0.

#### Personnel

The following staffing is available to implement this INRMP within the 88th RD:

- A team of Environmental Protection Specialists assigned to the Conservation Program
- A team of Area Environmental Protection Specialist assigned to Environmental Compliance
- Two Department of the Army Civilian (DAC) Branch Chiefs
- And the support of the DPW and other Environmental Program areas.

#### Command Support

Command support is essential to implementation of this INRMP. This INRMP is endorsed by and has the support of the 88th RD Commander. The Command is not only dedicated to implementation of this INRMP, as required by the Sikes Act and other federal laws, but also in strengthening its environmental stewardship goals and accomplishments. The 88th RD Command is dedicated to maintaining and improving the military mission on 88th RD lands, ensuring no net loss of natural resources while maintaining and improving lands utilized for mission readiness.

## 5.2 Other Partners and Resources

### 5.2.1 Other Defense Organizations

#### U.S. Army Reserve Command (ARC)

##### Installation Management Directorate

The Installation Management Directorate, located in Fort Bragg, North Carolina, is responsible for providing policy, guidance, and support to the 88th RD DPW Environmental Division's natural resources program by:

- reviewing natural resources management plans and programs, and
- ensuring that effective natural resources stewardship is an identifiable and accountable function of management.

The Installation Management Directorate will conduct an onsite evaluation of this natural resources program at least once every three years and will act as trustee over the overall natural resources program.

## **U.S. Army Environmental Command (USAEC)**

The Army Environmental Command, located at Fort Sam Houston, Austin, TX, provides oversight, centralized management, and execution of Army environmental programs and projects. It has support capabilities in the areas of NEPA, endangered species, cultural resources, environmental compliance, and related areas.

## **U.S. Army Public Health Command**

The Army Public Health Command, located at Aberdeen Proving Ground, MD, promotes health and prevents disease, injury, and disability in Soldiers and retirees, their families, and Army civilians. It has support capabilities for diseases that can be spread by pest animals and insects.

## **U.S. Army Corps of Engineers**

The USACE assists the 88th RD by administering contracts for outside or other agency support, contracting environmental personnel to function within the ED, and administering wetland permits in accordance with sections 404 and 401 of the CWA. These contracts include those involved with sensitive species surveys and others.

### **5.2.2 Other Federal Agencies**

#### **U.S. Fish and Wildlife Service**

The USFWS provides technical advice for management of natural resources on 88th RD property, particularly threatened and endangered species. Additionally, the USFWS recommends ways to avoid, minimize, rectify, reduce, or compensate for damaging impacts to important fish and wildlife resources and their habitats that may be attributed to land and water resource development proposals. AR 200-1 (Department of Army, 2007), Chapter 11, provides guidance to be followed by the 88th RD when dealing with the USFWS for endangered species management.

In accordance with the Sikes Act, the USFWS is a signatory cooperator in the implementation of this INRMP. Appendix F contains specific items of agreement among the USFWS; Idaho, Oregon, and WDFW; and the 88th RD, as required by the Sikes Act.

#### **U.S. Forest Service (USFS)**

The USFS is a multi-faceted agency that manages and protects 154 national forests and 20 grasslands in 44 states and Puerto Rico. The agency's mission is "To sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations." It augments this work through partnerships with public and private agencies that help plant trees, improve trails, educate the public, and improve conditions in wildland/urban interfaces and rural areas.

#### **U.S. Environmental Protection Agency**

The USEPA is involved in a host of federal programs related to natural resources management, particularly in the wetlands permitting process. US EPA's core mission is protection of human health and the environment, and is committed to providing clean air, water, and land for all Americans. (EPA, website)

### **5.2.3 State Agencies**

#### **State Wildlife Agencies**

The Colorado Parks and Wildlife mission is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources.

The Kansas Department of Wildlife Protection is responsible for conserving and enhancing Kansas natural heritage, wildlife, habitats, and resources, providing the public with opportunities for the use and appreciation of the natural resources of Kansas, and informing the public of the status of the natural resources in Kansas.

The Montana Fish, Wildlife, and Parks mission is to, through its employees and citizen commission, provide for the stewardship of the fish, wildlife, parks, and recreational resources of Montana, while contributing to the quality of life for present and future generations.

The Nebraska Game and Parks Commission's mission is responsible for stewardship of the state's fish, wildlife, park, and outdoor recreation resources in the best long-term interests of the people and those resources.

The North Dakota Game and Fish Department's mission is to protect, conserve, and enhance fish and wildlife populations and their habitat for sustained public consumptive and non-consumptive use.

The South Dakota Department of Game, Fish and Parks purpose is to perpetuate, conserve, manage, protect, and enhance wildlife resources, parks, and outdoor recreational opportunities for the use, benefit, and enjoyment of the people of this state and its visitors, and to give the highest priority to the welfare of this state's wildlife and parks, and their environment, in planning and decisions.

The Utah Division of Wildlife Resources mission is to serve the people of Utah as trustee and guardian of the state's wildlife.

The Wyoming Game and Fish Department's mission is to conserve wildlife and serve people.

The state wildlife agencies have Natural Heritage programs as part of a Natural Heritage Network with comparable programs in all 50 states, most Canadian provinces, and 14 Latin American countries. Heritage programs maintain the most comprehensive databases of each state's rare plant and animal species and natural communities. This information is a compilation of historical records from museum and herbarium collections, as well as from field surveys. Most all of the Natural Heritage programs are connected by NatureServe that provides proprietary wildlife conservation-related and services to private and government clients, partner organizations, and the public.

The state agencies listed above are signatory cooperators for implementation of this INRMP. Appendix F contains specific items of agreement among these state wildlife agencies, the USFWS (USFWS Interior Region 5/7), and the 88th RD, as required by the Sikes Act.

### **State Historic Preservation Offices (SHPOs)**

The Colorado, Kansas, Nebraska, Montana, North Dakota, South Dakota, Utah, and Wyoming SHPOs administer historic preservation programs and are responsible for overseeing the implementation of the National Historic Preservation Act in their states. State Historic Preservation Officers work with the 88th RD Cultural Resource Manager and their staff in evaluating DA Policy Guidance for Implementing site information and providing consultation for site protection and mitigation. These activities may affect certain natural resources management on Army Reserve property.

#### **5.2.4 Native American Tribes**

The United States government recognizes Indian tribes as domestic dependent nations under its protection, and as such, has a unique legal relationship with Indian Tribal governments as set forth in the Constitution of the United States, through treaties, statutes, executive orders, and court decisions. Executive Order 13175 and the DA Policy Guidance for Implementing *American Indian and Alaska Native Tribal Consultation (2014)* establish regular and meaningful consultation and collaboration with Indian tribal governments. The 88th RD provides a process that permits elected officials and other representatives of Indian tribal governments to provide meaningful and timely input on actions or policies that might be of tribal interest, such as those that affect sacred or Indian cultural sites. Federally recognized Native American Tribes that may be consulted are listed in the ICRMPs.

## 5.3 Identified Projects and Funding Requests

### 5.3.1 Project/Program Summary

Projects, goals, and objectives within this INRMP may contribute to the monitoring process, and the potential effectiveness of natural resources management at 88th RD LTAs and sites. Appendix C contains a list of projects planned over the next 5-year period covered by this INRMP. It should be noted that project success is closely tied to the 88th RD's funding constraints.

### 5.3.2 Environmental Program Requirements

The U.S. Army Environmental Funding Guidance (FY2019-26) provides the primary means for identifying current and projected environmental requirements and resources needed to execute the 88th RD's natural resources program. The funding guidance is used for a variety of purposes: planning, programming, budgeting, and forecasting costs; documenting past accomplishments and expenditures; tracking project execution and monitoring performance; refining and validating requirements for the budget year; and supporting the program for out-year requirements.

**Environmental funds** are a special subcategory of Operations and Maintenance funds. They are set aside by the DoD for environmental purposes but are still subject to restrictions of Operations and Maintenance funds. Compliance with laws is the key to environmental funding acquisition. Notices of Violation or other enforcement agency actions most commonly use environmental funds for projects that return the installation to compliance with federal or state laws, especially if accompanied by noncompliance.

"Must fund" classifications include mitigation identified within *Findings of No Significant Impact* and items required within Federal Sites Compliance Agreements. This INRMP is a Federal Sites Requirement Agreement, and some projects and programs within it are used to mitigate various military activities. In addition, 1997 amendments to the Sikes Act require implementation of INRMPs, which make implementation of this INRMP a priority for funding.

Table 5.1 lists projects for which environmental funding is anticipated for implementation of this INRMP.

### 5.3.3 Operations and Maintenance Funds

Certain projects within this INRMP are either partially or fully funded with Operations and Maintenance Funds. General site pest management (exclusive of invasive weed control and other range-related pest management) and general grounds maintenance are in this category. Operations and Maintenance Funds are not included in budget estimates for this INRMP.

### 5.3.4 Training Funds

Environmental Quality program funding includes activities for identification, monitoring, and planning associated with invasive species and noxious weeds such as components of planning level surveys, the Integrated Pest Management Plan, and the INRMP. Projects to remove invasive species and noxious weeds that impact training are funded through the ITAM program. All other projects are funded under real property services. This funding avenue will be developed as ITAM is evaluated for 88th RD LTAs.



**Table 5.1 Environmental Funds Projects\***

Project Number and Description	INRMP Section	Locations	MDEP	Fund Class	FY21*	FY22*	FY23*	FY24*	FY25*	Totals*
<b>AGLEASEIMPL:</b> AG Lease Program Implementation Reimbursable Agricultural Outlease/Grazing Activities	4.2.17	NE010/31895, KS031/20790	<b>RPTS</b>	1	75	100	100	100	100	475
<b>EARTHDAY -</b>		All Sites	<b>VENQ</b>	0	7	7	7	7	7	35
<b>ECOSYSMGT:</b> Projects pertaining various aspects associated with managing natural resources and ecosystems	4.2.17		QRPA QDPW VENQ	0	0	0	0	0	0	0
<b>ESMCPLN:</b> Prepare ESMC**	4.2.4	TBD	VENQ	0	80	80	0	0	0	160
<b>ESMCPLNIMPL:</b> Projects to implement requirements of ESMC**	4.2.4	TBD	VENQ	1	0	40	0	40	0	80
<b>ESMCPLNUP:</b> Update ESMC**	4.2.4	TBD	VENQ	1	0	55	55	55	55	220
<b>ESSRVY:</b> Conduct listed species surveys	4.2.4	TBD	VENQ	1	26	26	26	26	30	134
<b>ESSRVYUP:</b> Update the listed species surveys every 5-years	4.2.4	TBD	VENQ	1	26	26	26	26	30	134
<b>FORESTPLN:</b> Develop formal plan to manage trees and forests	4.2.7	TBD	VENQ QDPW	1	0	29	29	29	29	116
<b>FORESTPLNUP:</b> Update plan annually (internally) and externally every 5 years	4.2.7	KS031-20790	VENQ QDPW	1	5	25	5	5	5	45
<b>FORESTPLNIMPL:</b> Projects required to implement tree and forest mgmt. t	4.2.7	FY21 (KS031-20790)	VENQ QDPW	0	87.5	18.3	0	0	0	105.8
<b>INRMPUP:</b> Integrated Natural Resources Management Planning	4.2.1	Throughout USFWS USFWS Interior Region 5/7	VENQ	1	11.9	11.9	11.9	11.9	189	236.6
<b>INVSPLN:</b> Survey invasive species; prepare plan to control	4.2.11	No activity planned	VENQ QDPW	1	0	0	0	0	0	0
<b>INVSPLNIMPL:</b> Projects required to implement invasives plan	4.2.11	Work orders will be submitted for affected facilities	QMUN	1	0	0	0	0	0	0
<b>INVSPLNUP:</b> Update plan annually (internally) and externally every 5-yrs	4.2.11	(NE010/31895) (KS031/20790)	VENQ QDPW	1	15	15	15	15	15	75
<b>MBTSRVY –</b> migratory bird survey	4.2.5	KS031/20790 NE010/31895	VENQ	1	5 16	0 0	5 16	0 0	5 16	15 48
<b>NATIVEPLN:</b> Develop plans to incorporate native species and plantings		No activity planned	VENQ QDPW	3	0	0	0	0	0	0
<b>NRSRVY:</b> Conduct initial Planning Level Surveys (PLS) or other resource surveys (i.e. –deer)	4.2.1	TBD	VENQ QDPW	1	21	21	21	25	25	113
<b>NRSRVYUP:</b> Update PLSs every 5 years	4.2.1	TBD	VENQ QDPW	0	0	210	252	252	252	966

**Table 5.1 Environmental Funds Projects\* (continued)**

Project Number and Description	INRMP Section	Locations	MDEP	Fund Class	FY21*	FY22*	FY23*	FY24*	FY25*	Totals*
<b>SLSH2OMGT:</b> Projects to support/control erosion, soils mgmt., riparian corridors, NR water mgmt. items, sampling, etc.	4.2.2	TBD	VENQ QDPW	1	0	0	0	0	0	0
<b>STATEESSRVY</b> – determine if state endangered species presence	4.2.4	TBD	VENQ	1	17	26	26	26	30	125
<b>TRNGCNS:</b> Develop and distribute natural resources information for LTAs	4.2.10	TBD	VENQ	0	3	48	48	48	48	195
<b>WTLNDRPERMIT:</b> Project specific USACE Sect 404 permit application process.	4.2.8	No activity planned	VENQ	0	0	0	0	0	0	35
<b>WTLNDRSTR:</b> Restore wetlands when needed	4.2.8	TBD	VENQ QDPW	1	25	50	50	50	50	25
<b>WTLNDSRVY:</b> Survey and delineate wetlands	4.2.8	KS105-20499	VENQ	0	0	0	127.3	0	0	127.3
<b>WTLNDRVYUP:</b> Wetland survey updates	4.2.8	FY21 UT007-49676, FY23 NE010/31895	VENQ	1	15	0	21	0	0	36
<b>WLDFIREPLN:</b> Develop wildland fire management plan	4.2.16	No activity planned	VENQ QDPW	0	0	0	0	0	0	0
<b>WLDFIREPLNUP:</b> Update plan annually (internally) and externally every 5 years	4.2.16	KS031/20790, NE010/31895 FY21, 22, 24, 25 annual updates FY23 5-year update	VENQ QDPW	1	15	15	30	15	15	90
<b>WLDFIREPLNIMPL:</b> Projects required to implement wildland fire management	4.2.16	No activity planned	VENQ 21F	1	0	0	0	0	0	0
<b>CNSPGMMGT:</b> Annual salaries and benefits	4.2.19		VENQ	0	935	963	990	1,023	1,051	4,962
<b>TRNGCNSSTAFF:</b> Professional development and training	4.2.10			3	30	42	30	42	30	174
<b>TOTALS*</b>					<b>1,415.2</b>	<b>1,808.2</b>	<b>1,891.2</b>	<b>1,795.9</b>	<b>1,982</b>	<b>8,892.47</b>

\* Funding in thousands of dollars.

\*\* Funding needs would increase if other federal-listed species were discovered on 88th RD lands.

Class 0 - Recurring requirements necessary to manage and monitor environmental programs.

Class 1 (Must Fund) - Nonrecurring projects and activities at sites that are out of compliance. Also includes projects and activities necessary to meet specified deadlines and requirements in the year funds are requested.

Class 2 (Must Fund) - Nonrecurring projects and activities at sites in compliance at the present time but for which future specified deadlines and requirements are established.

Class 3 (Other Environmental) - Nonrecurring projects and activities that are not required by statute/regulation or do not have deadlines but that are needed to address overall environmental goals and objectives and to sustain environmental stewardship.

## 5.4 Annual and Five-Year Reviews

INRMPs are reviewed annually to assess progress made toward achieving goals and objectives and identify possible new projects, as well as every five years to determine whether the existing INRMP is being implemented to meet the requirements of the Sikes Act. DoD's INRMP Implementation Manual covers INRMP reviews, updates, and revisions (DoDM 4715.03, 2013).

### 5.4.1 Annual Review Process

To monitor INRMP implementation and progress towards goals, the 88th RD Environmental Division NRM completes the following steps, annually by fiscal year:

- (1) Review the INRMP and document progress toward its objectives, taking into consideration that success/progress towards INRMP objectives is closely tied to funding availability.
- (2) The Director of Public Works will validate and certify the annual update as current.
- (3) Provide a brief report of the annual review to the 88th RD CG or designated alternate.
- (4) Annual reviews shall verify that:
  - projects have been budgeted for and implementation is on schedule; contingent upon availability of funding.
  - projects and activities for the upcoming years have been identified and included in the INRMP review.
  - an evaluation has occurred to identify significant changes to the site's mission requirements or its natural resources.
  - no net loss of training capability has occurred due to implementation of the INRMP in accordance with the Sikes Act.

### 5.4.2 Annual Review Summaries

Upon completion and approval, the Annual review summaries will be provided in Appendix D.

### 5.4.3 Five-Year Review Process

The INRMP will be reviewed by the Natural Resources Manager in coordination with the Conservation Branch Manager and revised, when necessary, every 5 years by the Environmental Division and coordinated within the 88th RD. Coordination will include the Regional Directors Regional Director of USFWS Region 1, and Directors of the state fish and wildlife agencies. After coordination is completed the draft will be proposed to the 88th RD Commanding General for approval. The review is intended to determine whether the existing INRMP is being implemented and effective to meet the requirements of the Sikes Act and contribute to the conservation and rehabilitation of natural resources on 88th RD sites.

If the review process determines that no revision is necessary, the existing INRMP will continue to provide guidance for natural resources management on 88th RD sites. If the review process determines that the INRMP needs revising, there is no set time limit to complete the INRMP revisions. Until the USFWS Regional Director and state fish and wildlife agency directors mutually agree upon the INRMP revision, the current INRMP remains in effect.

If there is no substantive changes to the INRMP then a memorandum from the 88th RD's Commander will be sent to the agencies notifying them that there are no substantive changes with a request for their concurrence. Examples of substantive changes are:

- Acquisition of a new high resource site.

- Discovery since the last 5-year review of a federally listed species under the ESA on a site.
- Loss of greater than 5 acres of jurisdictional wetlands requiring mitigation.
- An alteration to the 88th RD's mission that dramatically changes training capability requirements and impacts natural resource management. This is to ensure no net loss of training capability has or will occur due to implementation of the INRMP in accordance with the Sikes Act.

After 90 days, the memorandum will then become part of the existing INRMP and the five-year review is complete. Agency responses, or the lack thereof, will be included in the documentation. The memorandum will be placed in Appendix C with the Annual Report Summaries.

## **5.5 Stakeholder Coordination and Public Involvement**

### **5.5.1 Stakeholder Coordination**

DoD has established partnerships with federal and state regulatory agencies to support the common goals of managing natural resources, conserving native species, and recovering threatened and endangered species. To develop and implement this natural resources management strategy, the USAR partners closely with the USFWS and state DNRs. Those agencies participate in the preparation of the INRMP, as well as annual reviews of the progress and effectiveness of the Plan. The USAR also affords an opportunity for public comment during development of the Plan.

The DoD also has formed partnerships with nongovernmental organizations (NGOs) such as PIF. The 88th RD will use the data and regional management strategies provided by these NGOs to provide additional regional context to this INRMP.

### **5.5.2 Public Involvement**

Educating the users and visitors of 88th RD sites is key to integrating this Plan with USAR activities, and is a priority of the natural resources management strategy. Projects involving education are found throughout this INRMP. Other projects involving creation or update of fact sheets, soldier/user field cards and other innovative educational ideas are designed to inform personnel of the importance of natural resources conservation, not only for the purpose of land stewardship, but also to support the military mission.

An EA was completed for the proposed actions and management activities identified in the 2015-2020 USFWS Interior Region 5/7 INRMP Update. During the preparation of the EA, the general public was invited to comment on the proposed actions and management activities identified in the INRMP Update. Public and regulator comments were considered and/or captured in the final EA/FNSI (2016). The proposed actions and management activities identified in this 2021-2025 USFWS Interior Region 5/7 INRMP Update have not significantly changed from the prior version of the USFWS Interior Region 5/7 INRMP and remain similar to the ongoing management activities that were previously evaluated in the 2016 EA/FNSI. Therefore, an additional EA and corresponding public comment period for this 2021-2025 USFWS Interior Region 5/7 INRMP Update is not planned.

## 6.0 References

- AEM Group (AEM), 2018a. Natural Resources Survey, CO017/08660 – Joe P. Martinez ARC/AMSA, Survey Conducted: 2018.
- AEM Group (AEM), 2018b. Natural Resources Survey, CO147/0827 – Windsor ARC, Survey Conducted: 2018.
- AEM Group (AEM), 2018c. Natural Resources Survey, Colorado Springs ARC, Survey Conducted: 2018.
- AEM Group (AEM), 2018d. Natural Resources Survey, KS 031/20790 Sunflower LTA, Survey Conducted: 2018.
- AEM Group (AEM), 2018e. Natural Resources Survey, NE010/31895 Mead LTA, Survey Conducted: 2018.
- AEM Group (AEM), 2018f. Natural Resources Survey, UT002/49276 Fort Stephen A. Douglas AFRC, Survey Conducted: 2018.
- AEM Group (AEM), 2018g. Natural Resources Survey, UT007/49676 Browning/Ogden LTA, Survey Conducted: 2018.
- BHE Environmental, Inc. (BHE), 2010a. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Colorado and Wyoming. March.
- BHE, 2010b. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Kansas. August.
- BHE, 2010c. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Montana. August.
- BHE, 2010d. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Nebraska. August.
- BHE, 2010e. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in North Dakota and South Dakota. August.
- BHE, 2010f. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Utah. May.
- CDA, 2018a. Colorado Department of Agriculture. Noxious Weeds. <https://ag.colorado.gov/conservation/noxious-weeds/species-id> . Access 8 September 2018
- CDA 2018b. Colorado Department of Agriculture. *Hairy Willow Herb Identification and Management*. <https://drive.google.com/file/d/1qC9bc9pp8IMDC7a2zggcHXf4QaVWBL0o/view> . Accessed 15 September 2019.
- CGS 2018. Online map of the physiographic provinces of Colorado. <http://geosurvey.state.co.us/geology/topography/Pages/Physiographic.aspx>. Accessed 8 September 2018.
- Department of Defense (DoD), 1998. *American Indian and Alaska Native Policy*. The Pentagon, Washington, DC. 12 pp.
- DoD, 2013. *INRMP Implementation Manual*. The Pentagon, Washington, DC. 31 pp.
- Department of the Army, 1994. *Unit Leaders' Handbook for Environmental Stewardship*. TC 5-400. Produced by the Training and Doctrine Command, Fort Monroe, VA for Headquarters, Washington, DC.
- Department of the Army, 1995b. *Integrated Training Area Management (ITAM) Program Strategy*. Headquarters, Washington, DC. 66 pp. + appendices.
- Department of the Army, 1999b. *Integrated Training Area Management*. Procedural Manual, Implementing Draft, Headquarters, Washington, DC.

- Department of the Army, 2005. The Army Sustainable Range Program. Army Regulation 350-19, Headquarters, Washington, DC.
- Department of the Army, 2007. *Environmental Protection and Enhancement*. Army Regulation 200-1, 13 December, Headquarters, Washington, DC.
- NPS 2018. National Park Service. (Last updated March 17, 2017). Physical Provinces. Retrieved from <https://www.nps.gov/subjects/geology/physiographic-provinces.htm>
- NRCS, 2018. Natural Resource Conservation Service Soils Database, <https://www.nrcs.usda.gov/wps/portal/nrcs/site/soils/home/>
- Office of the President, 1994. *Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds*. Memorandum to Heads of Executive Departments and Agencies, April 26, 1994. The White House, Washington, DC. 3 pp.
- Office of the President, 1999. *Invasive Species*. Executive Order 13112. February 3. The White House,
- Office of the President, 2014. *Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators*. Memorandum to Heads of Executive Departments and Agencies, June 20, 2014. The White House, Washington, DC.
- The Keystone Center, 1996. *A Department of Defense (DoD) Biodiversity Management Strategy*. Keystone Center Policy Dialogue on Department of Defense (DoD) Biodiversity, Final Report. Keystone, CO. 37 pp.
- URS, 2013a. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers in Colorado and Wyoming. December.
- URS, 2013b. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers and Local Training Areas in Kansas. December.
- URS, 2013c. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers and Local Training Areas in Nebraska. December.
- URS, 2013d. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers and Local Training Areas in Utah. December.
- URS, 2014. Natural Resources Surveys: Initial and Updates at Select 88th Readiness Division US Army Reserve Centers and Local Training Areas in Montana. January.
- U.S. Army Environmental Center (USAEC), 1997. *Guidelines to Prepare Integrated Natural Resources Management Plans for Army Installations and Activities*. Aberdeen Proving Ground, MD. 37 pp.
- USDA/NRCS, 2006. *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*. U.S. Department of Agriculture Handbook 296 Issues 2006. ([https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_050898.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050898.pdf) )
- USEPA, 1997, Ecological Regions of North America: Toward a Common Perspective. Commission for Environmental Cooperation. Level III Ecoregions of the Continental United States, 1997. [https://en.wikipedia.org/wiki/List\\_of\\_ecoregions\\_in\\_the\\_United\\_States\\_\(EPA\)](https://en.wikipedia.org/wiki/List_of_ecoregions_in_the_United_States_(EPA)) <https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states>
- U.S. Fish and Wildlife Service (USFWS), 2008. *Birds of Conservation Concern*. USFWS, Division of Migratory Bird Management, Arlington, Virginia. <http://www.fws.gov/migratorybirds>.

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# APPENDICES

Appendix A	Laws, Regulations, and EOs
Appendix B	Low Resource Site Profiles
Appendix C	Project Lists
Appendix D	Annual Review Summaries
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# Appendix A: Laws, Regulations, and Executive Orders

## Compliance Requirements

The INRMP is the primary mechanism for compliance with natural resources laws and regulations. Federal, state, and local laws and regulations may apply to proposed management actions in this plan.

### **Sikes Act**

The Sikes Act (as amended) requires an INRMP be prepared and implemented for each military installation, unless the absence of significant natural resources makes preparation of a plan inappropriate. Pursuant to the Sikes Act, INRMPs include (DoDM 4715.03):

- **Mission Sustainability:** The goal of DoD environmental programs and policies is conserving the environment for mission sustainability. INRMPs should enable the preparedness of the Military Services to provide for no net loss in the capability of military installation lands to support the military mission of the installation.
- **Managing Threatened and Endangered Species:** The INRMP incorporates inventory, monitoring, and management of ESA listed species and agreed upon elements of specific ESA consultations.
- **Implementation:** INRMP implementation must comply with applicable federal laws.
- **Accommodation of Public Access:** The INRMP identifies areas available to the general public (for hunting, fishing, and trapping) to the extent that the use is not inconsistent with the needs of fish and wildlife resources, subject to requirements necessary to ensure safety and military security.
- **Review:** Incorporate USFWS and state fish and wildlife agencies into preparing, reviewing, revising, updating, and implementing INRMPs in accordance with the 2013 Sikes Tripartite Memorandum of Understanding (<https://denix.osd.mil/announcements/unassigned/sikes-tripartite-mou/>).

### **National Environmental Policy Act**

In accordance with the Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500–1508), NEPA requires all federal agencies to give appropriate analysis and consideration to potential environmental effects of proposed actions in planning and decision making. The intent of NEPA is to better inform decision-makers of potential impacts from proposed projects and to utilize this information early in the project planning process. AR 200-1 *Environmental Protection and Enhancement* (Department of the Army, 2007) and AR 200-2, *Environmental Analysis of Army Actions*, as amended (32 CFR Part 651), requires environmental analysis under NEPA for INRMPs, unless categorically excluded, or already analyzed in an existing NEPA document.

### **Endangered Species Act**

This INRMP has the signatory approval of the USFWS. This signature approval includes agreement that the INRMP complies with the ESA. Review of the INRMP is informal consultation with regard to the ESA and AR 200-2, *Environmental Analysis of Army Actions*, as amended (32 CFR Part 651), requires environmental analysis under NEPA for INRMPs, unless categorically excluded or already analyzed in an existing NEPA document.

### **Army Regulations**

AR 200-1 (*Environmental Protection and Enhancement*) (Department of the Army, 2007) implements Federal, State, and local environmental laws and DoD policies for preserving, protecting, conserving, and restoring the quality of the environment. Some of these areas affect and/or are affected by natural resources programs (e.g., water quality, pollution prevention, restoration).

AR 350-19 (The Army Sustainable Range Program) (Department of the Army, 2005) defines the ITAM program's objectives as achieving optimal sustained use of lands for training and testing, integrating Army training and other mission requirements for land use with sound natural resources management, and advocating proactive conservation and land management priorities.

## ***List of Laws and Regulatory Instruments***

Presented below is a list of the most significant, but not complete, federal, and state laws and regulations and other regulatory instruments that govern implementation of this INRMP.

### **Federal Laws**

American Indian Religious Freedom Act (42 USC, as amended through 1996)

Archaeological and Historic Preservation Act of 1974 (PL 93-291; 88 Stat. 174; 16 USC 469 *et seq.*)

Archaeological Resources Protection Act of 1979 (PL 96-95:16 USC 470aa-ll, as amended through 1988)

Bald Eagle Golden Eagle Protection Act (PL 95-616 (92 Stat. 3114), as amended through 1978)

Clean Air Act (as amended through 1990)

Clean Water Act (CWA) of 1978

Conservation and Rehabilitation Program on Military and Public Lands (PL 93-452, as amended through 2013)

Conservation Programs on Military Reservations (PL 90-465, as amended through 1986)

Endangered Species Act (ESA) of 1973 (PL 95-632, as amended through 1982)

Erosion Protection Act (33 USC 426e-426h)

Federal Sites Compliance Act of 1992 (PL 102-386; amending 42 USC 6961)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 *et seq.*, as amended through 2007)

Federal Water Pollution Control Act Amendments of 1972 (PL 92-522)

Fish and Wildlife Conservation Act of 1980 (PL 96-366; 16 USC 2901, as amended through 1989)

Fish and Wildlife Coordination Act (PL 89-72, 79 Stat. 216, as amended through July 9, 1965)

Fish and Wildlife Conservation and Natural Resource Management Programs on Military Reservation (Amends Public Law 86-797 [Sikes Act] PL 96-561)

Migratory Bird Conservation Act (Chapter 257; 45 Stat 1222; 16 USC 715 *et seq.*, as amended through 1986)

Migratory Bird Treaty Act (PL 65-186; 16 USC 703 *et seq.*, as amended through 1998)

Migratory Bird Treaty Reform Act (MBTRA) of 2004 as amended in in 2020

Native American Graves Protection and Repatriation Act of 1990 (25 USC, Section 3001 *et seq.*)

Navigable Waters Protection Rule, DoD 30 CFR Part 128 and EPA 40CFR Parts 110. 112, 116, 117, 120, 122, 230, 232, 300, 302, and 401 (2020)

NEPA of 1969 (as amended, PL 91-190; 42 USC 4321 *et seq.*, as amended through 1982)

National Historic Preservation Act of 1966 (as amended, PL 89-665; 16 USC 470 *et seq.*, as amended through 1992)

Non-game Act (PL 93-366, as amended through 1977)

Noxious Plant Control Act (PL 90-583, as amended in 1990)

Plant Protection Act of 2000 (replaces Federal Noxious Weed Act of 1973 (PL 93-629))

Sikes Act Improvement Act of 1997 (PL 105-85, as amended; USC Title 16)

Watershed Protection and Flood Prevention Act (PL 92419; 68 Stat 666, as amended & 86 Stat 667; 16 USC 1001)

### **Executive Orders and Presidential Memoranda**

Executive Order 11593, Protection, and Enhancement of the Cultural Environment (1971)

Executive Order 11988, Floodplain Management (2015)

Executive Order 11991, Protection and Enhancement of Environmental Quality: Amends Executive Order 11514 (1977)

Executive Order 12608, Protection of Wetlands: Amends Executive Order 11990 (1987)

Executive Order 12898, Environmental Justice (1994), Amended by Executive Order 12948 (1995)

Executive Order 13007, Indian Sacred Sites (1996)

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks (1997), Amended by Executive Order 13229 (2001) and Executive Order 13296 (2003)

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (2000)

Executive Order 13112, Invasive Species (1999)

Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (2001)

Executive Order 13653, Preparing the United States for the Impacts of Climate Change (2013)

Executive Order 13693, Planning for Federal Sustainability in the Next Decade (2015)

Presidential Memorandum, Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds (1994)

Presidential Memorandum, Government-to-Government Relations with Native American Tribal Governments (1994)

Presidential Memorandum, Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators (2014)

CEQ Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes (2011)

### **Department of Defense Directives/Instructions**

DoD Directive 4150.7, DoD Pest Management Program (2008)

DoD Directive 4700.4, Natural Resources Management Program (1989)

DoD Directive 4710.1, Archaeological and Historic Resources Management (1984)

DODI 4710.02, Tribal Consultation (2018)

DoD Manual 4715.03 Integrated Natural Resources Management Plan (INRMP) Implementation Manual (November 25, 2013, Incorporating Change 2, August 31, 2018)

DoD Directive 4715.1E, Environment, Safety, and Occupational Health (ESOH) (2005)

DoDI 4715.9, Environmental Planning and Analysis (1996)

DoDI 5000.13, Natural Resources (1976)

DoD Directive 7310.5, Accounting for Production and Sale of Forest Products (1988)

DoD, American Indian and Alaska Native Policy (1998)

DoD Guidance, Climate Adaptation For DoD Natural Resource Managers (2020)

## **Army Regulations**

AR 200-1, Environmental Protection, and Enhancement (Department of the Army, 2007)

AR 350-19, the Army Sustainable Range Program (Department of the Army, 2005)

*Integrated Training Area Management Plan (ITAM) Roles and Responsibilities for Integrated Natural Resource Management Plan I (INRMP) Development.* Department of Army Memorandum.  
Dated: Jun 03, 2019

## **Appendix B: Low Resource Site Profiles**

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**88th Readiness Division  
USFWS Interior Region 5/7  
Disposed Properties  
Between 2015 and 2020**

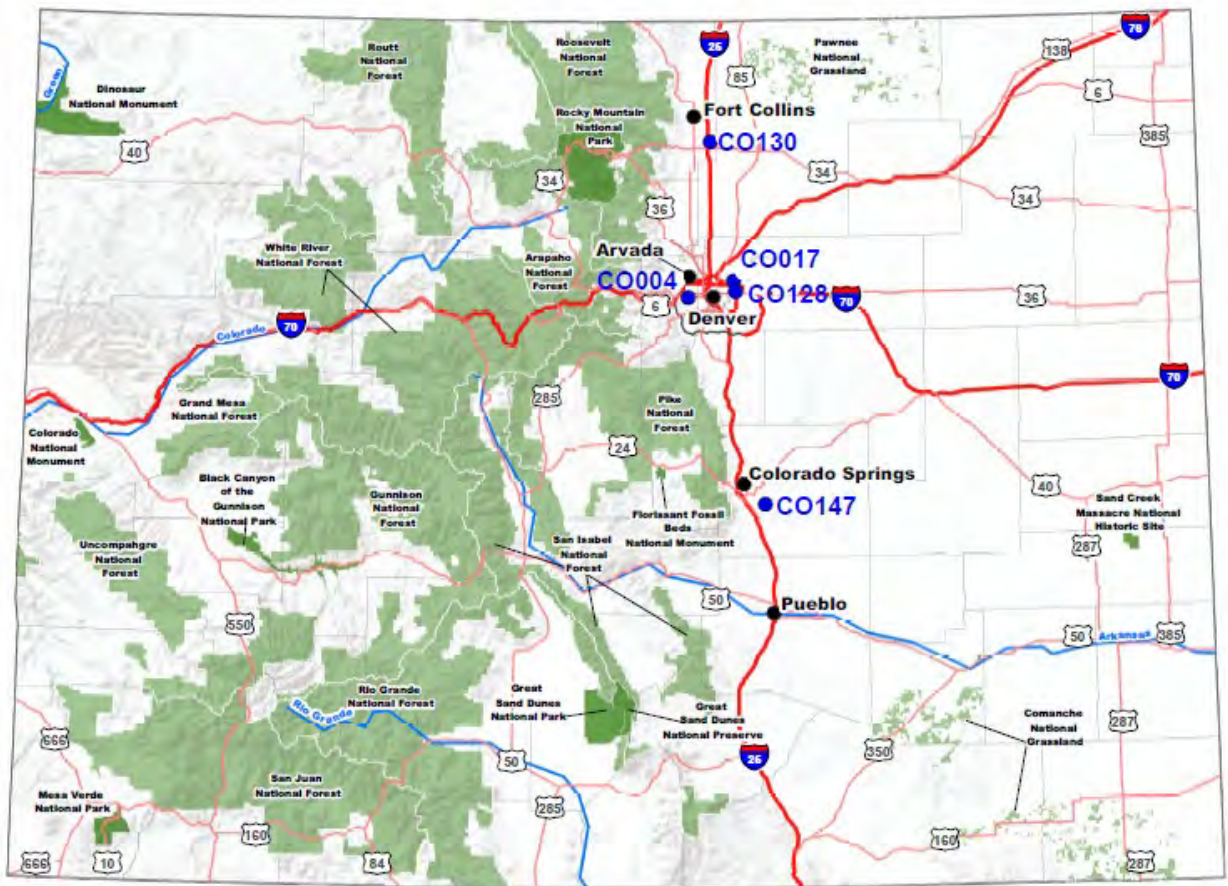
CO020/08805	Gunnison USAR	Grand Junction	17 April 2018
CO131/0811A	USARC	Fort Collins	31 October 2015
KS079/2026A	El Dorado USARC	El Dorado	01 July 2017
MT023/30760	Ft. Wm. Harrison AMSA	Helena	Closed/absorbed by MT008
MT025/30565	Missoula Cemetery	Missoula	16 October 2019
ND001/38525	Lewis & Clark USARC	Bismarck	20 May 2015
UT002/49276	Ft. Stephen A. Douglas Cemetery	Salt Lake City	20 December 2019

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## Sites in Colorado

CO004 – Elmer E. Fryar ARC

CO128 – William T. Fitzsimons ARC



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## CO004/08705 Elmer E. Fryar ARC

Denver Federal Center  
Denver, CO 80225

County: Jefferson

Real Property Report Acres: 7.20

Building Count: 3

% Cover: Paved Road/Parking (43%)  
Maintained Grass (44%)  
Buildings (11%)  
Gravel Road/Parking (2%)  
(No change CMM 3DEC18)



Last Field Survey: Desktop only

The Elmer E. Fryar ARC is located in the north central region of Colorado and consists of an ARC building, Organizational Maintenance Shop building, storage, and associated parking areas. Surrounding land use office buildings and parking lots to the west, U.S. Highway 6 to the south, and large open fields to the east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the three buildings that comprise CO004.  
(No change CMM 3DEC18)

### Natural Resources

**EPA Ecoregion:** High Plains

**Wetlands:** None identified on-site (Verified unchanged from NWI website data CMM 3DEC18)

**Identified Species:** Not available, as field surveys have not been conducted at CO004.

#### Listed species:

F	S	A	Scientific Name	Common Name	Installation Presence	Existing USFWS Consultation/Conference
T	T		<i>Zapus hudsonius luteus</i>	Preble's Meadow jumping mouse	None	Meadow jumping mouse subspecies (ST) was identified within 1,000 feet of CO004. No habitat on site.
T	E		<i>Lynx canadensis</i>	Canada lynx	None	
T			<i>Gaura neomexicana</i> var. <i>coloradensis</i>	Colorado butterfly plant	None	
T	T		<i>Strix occidentalis lucida</i>	Mexican spotted owl	None	
E			<i>Scaphirhynchus albus</i>	Pallid sturgeon	None	
T			<i>Hesperia leonardus montana</i>	Pawnee montane skipper	None	
T			<i>Spiranthes diluvialis</i>	Ute ladies'-tresses orchid	None	
E	E		<i>Grus americana</i>	Whooping crane	None	

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (source USFWS IPAC and CO P&W website List verified CMM 3DEC18).

Given the current land use at CO004, which consists of pavement, buildings, parking areas, and maintained grasses, suitable habitat does not exist for any of the flora and fauna species listed as potentially occurring within the site.

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 3DEC18)  
(QA/QC STL 16DEC2019)

## CO128/08801 – Low Resource

### William T. Fitzsimons ARC

13137 East 23<sup>rd</sup> Avenue, Aurora, CO 80045

County: Adams

Real Property Report Acres: 20.73

Building Count: 5

% Cover: Paved Road/Parking (33.9%)

Maintained Lawn (28.5%)

Disturbed Field (24.2%)

Buildings (13.4%)

(No change CMM 3DEC18)

Last Field Survey: 2013



The William T. Fitzsimons ARC is located in the eastern region of Colorado and consists of five ARC buildings, an OMS, and associated parking areas. Surrounding land use includes commercial land to the south and east, a road and stream and residential land to the north, and a golf course to the west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the five buildings and the land that comprise Site CO128.

### Natural Resources

**EPA Ecoregion:** High Plains

**Wetlands:** None identified on-site (Verified unchanged from NWI website data CMM 3DEC18)

### **Field Identified Species:**

**Vegetation:** The maintained lawn/herbaceous layer is dominated by Kentucky bluegrass (*Poa pratensis*) along with: downy brome (*Bromus tectorum*), common lambsquarters (*Chenopodium album*), field bindweed (*Convolvulus arvensis*), redstem filaree (*Erodium cicutarium*), common mallow (*Malva neglecta*), dandelion (*Taraxacum*), and white clover (*Trifolium repens*). Softstem bulrush (*Schoenoplectus tabernaemontani*), and timothy (*Phleum pratense*) occur in an exposed concrete storm water drainage in the east portion of CO128.

**Shrub layer** - barberry and other ornamental shrubs are planted near building entrances.

**Canopy layer** - is sparse and includes scattered individuals of red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), honey locust (*Gleditsia triacanthos*), ponderosa pine (*Pinus ponderosa*), and white pine (*Pinus strobus*).

At the time of the 2013 field survey, the green ash trees located in the vegetated parking strips appear to be healthy.

The disturbed field community is located in the northern and northeastern portion of CO128 and is made up of:

**Herbaceous layer** - is dominated by downy brome. Other species observed in the herbaceous layer include crested wheatgrass (*Agropyron cristatum*), smallseed

falseflax (*Camelina microcarpa*), wavyleaf thistle (*Cirsium undulatum*), field bindweed (*Convolvulus arvensis*), hairy false goldenaster (*Heterotheca villosa*), curly dock (*Rumex crispus*), tumble mustard (*Sisymbrium altissimum*), dropseed (*Sporobolus*), puncture vine (*Tribulus terrestris*), white clover, common mullein (*Verbascum Thapsus*), and American vetch (*Vicia Americana*).

**Shrub layer** - consists of a few scattered individuals of Russian-olive, plains cottonwood, and Siberian elm.

Downy brome (*Bromus tectorum*), field bindweed (*Convolvulus arvensis*), and puncture vine (*Tribulus terrestris*) are designated as List C species in the Colorado Noxious Weed Act.

**Wildlife:** Wildlife observed during the field survey include killdeer (*Charadrius vociferous*), rock dove (*Columba livia*), western meadowlark (*Sturnella neglecta*), European starling (*Sturnus vulgaris*), eastern cottontail (*Sylvilagus floridanus*), and American robin (*Turdus migratorius*). Two dead eastern screech owls (*Megascops asio*) were found in the southeast corner of the site.

The Disturbed Field community offers foraging habitat for common birds of prey, songbirds, and small mammals.

Overall, there is little natural habitat suitable for wildlife within the site. Wildlife species adapted to developed areas are most likely to utilize this property.

**Listed Species:**

F	S	A	Scientific Name	Common Name	Installation Presence	Existing USFWS Consultation/Conference
T	T		<i>Zapus hudsonius luteus</i>	Preble's Meadow jumping mouse	None	Meadow jumping mouse subspecies (ST) was identified within 1,000 feet of CO004.
T	E		<i>Lynx canadensis</i>	Canada lynx	None	
T			<i>Gaura neomexicana var. coloradensis</i>	Colorado butterfly plant	None	
E	E		<i>Sterna antillarum</i>	Least tern (interior population)	None	
T	T		<i>Strix occidentalis lucida</i>	Mexican spotted owl	None	
E			<i>Scaphirhynchus albus</i>	Pallid sturgeon	None	
T			<i>Hesperia leonardus montana</i>	Pawnee montane skipper	None	
T			<i>Spiranthes diluvialis</i>	Ute ladies'-tresses orchid	None	
E	E		<i>Grus americana</i>	Whooping crane	None	

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and CO Parks & Wildlife List verified CMM 3DEC18).

No suitable or potentially suitable habitat was found on the site that would result in any of the species listed as potentially occurring at CO128.

Black-footed ferret (*Mustela nigripes*) is a state listed endangered species in Colorado. Habitat for this species includes grasslands or shrub lands in the eastern plains, mountain parks, and western valleys that support some species of prairie dog, the



ferret's primary prey. The Colorado Natural Heritage Program reported a historical record of black-footed ferret occurring within 1,000 feet of CO128 in 1946. However, potentially suitable habitat for the black-footed ferret was not observed within CO128, and no prairie dog colonies are known to occur within 1,000 feet of the site. Therefore, it is unlikely that the species is present within or around CO128.

**Other Considerations:** None

### **Management Issues, and Concerns**

At the time of the 2013 field survey, a few Russian-olive trees were identified on CO128, at the time the species did not pose an immediate concern as to modifying or negatively impacting site operations. Even though this species did not appear to pose an immediate concern to site operations in 2013 it has a tendency to spread rapidly and out compete native species and therefore should be eradicated. Early eradication can also lead to better containment of invasive species and reduce herbicide application costs. **Russian-olive is designated by the Colorado Noxious Weed Act as a "List B" species and is required to be eradicated, contained, or suppressed depending on the level of infestation.**

**Additionally, herbaceous species such as downy brome, field bindweed, and puncture vine are designated as List C species in the Colorado Noxious Weed Act, have been identified on site and should be controlled/eradicated from the site.**

(Updated CMM 3DEC18)  
(QA/QC STL 16DEC2019)

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## KS005/20700 – Low Resource

### Emporia ARC

1412 East Sixth Avenue  
Emporia, KS 66801

County: Chase

Real Property Report Acres: 5.20

Building Count: 2

% Cover: Maintained Grass (56%)  
Paved Road/Parking (38%)  
Buildings (5%)  
Drainage Ditch (1%)  
(No change CMM 13DEC18)

Last Field Survey: 2009



The Emporia ARC is located in the city of Emporia, KS and consists of an ARC, an additional building, and associated parking areas. Surrounding land use is entirely residential.

### Land Use

The site is used for administrative services and classroom training. The 88th RD owns the two buildings and leases the land that comprises KS005. (No change CMM 13DEC18)

### Natural Resources

**EPA Ecoregion:** Flint Hills

**Wetlands:** None identified on-site (Verified unchanged from NWI website data CMM 13DEC18)

**Listed Species:** None identified on-site (USFWS IPAC and KS WPT 26MAR19)

#### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*).

***Shrub layer*** - red mulberry (*Morus rubra*) and red cedar (*Juniperus virginiana*)

***Canopy layer*** – cottonwood (*Populus*), red cedar, and black locust (*Robinia pseudoacacia*)

No invasive-exotic species were documented in this community.

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed by during the 2009 site survey included eastern cottontail (*Sylvilagus floridanus*) and blue jay (*Cyanocitta cristata*).

#### **Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> T),
Neosho madtom	( <i>Noturus placidus</i> , FT, ST),
Topeka shiner	( <i>Notropis Topeka</i> , FE, ST),
Neosho mucket	( <i>Lampsilis rafinesqueana</i> , FE, SE),

Western prairie fringed orchid (*Platanthera praeclara*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT Verified CMM 26MAR19)

Given the current land use at KS005, which consists primarily of pavement, buildings, and maintained grasses, it is unlikely that suitable habitat exists for any of the flora and fauna species listed as potentially occurring within the site. Only the Northern long-eared bat has any potential as the rest of the species are fish, clams, or wetland dependent and the site has no water or wetland features. Low chance for the bat as the site is fully developed and has no significant forest habitat with mature trees. (Verified CMM 26MAR19)

**Other Considerations**

A man-made drainage ditch occurs along the southern boundary of the site. At the time of the survey, the average channel width was approximately 3 feet, ranging from 1 to 5 feet. This drainage ditch had a silt substrate and was without sinuosity. There were isolated pools of standing water with an average depth of 2 inches. The drainage ditch is essentially an extension of the maintained lawn, and it appears to be mowed with the same frequency, suggesting that it is not regularly saturated.

**Management Issues, and Concerns:** None

(Updated CMM 26MAR19).  
(QA/QC STL 19DEC19)

## KS010/20725 – Low Resource

### Ralph B. Praeger ARC

2222 19<sup>th</sup> Street  
Great Bend, KS 67530

County: Barton

Real Property Report Acres: 2.60

Building Count 3

% Cover: Paved Road/Parking (78%)  
Buildings (14%)  
Maintained Grass (8%)  
(No change CMM 13DEC18)

Last Field Survey: 2009



The Ralph B. Praeger ARC is located in the city of Great Bend, KS and consists of a ARC, an OMS, an additional building, and associated parking areas. Surrounding land use includes recreational land to the north (zoological gardens), residential property to the south and east, and public land (high school) to the west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD leases the land and owns the three buildings that comprise KS010. (No change CMM 13DEC18)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (No change CMM 13DEC18)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

***Shrub layer*** - None present.

***Canopy layer*** - black locust (*Robinia pseudoacacia*).

No invasive-exotic species were documented in this community.

At the time of the 2009 field survey, the trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** The only wildlife observed during the 2009 site survey was European starling (*Sturnus vulgaris*).

### **Listed Species:**

Piping plover (*Charadrius melodus*, FT, ST)

Whooping crane (*Grus americana*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT Verified CMM 26MAR19)

Given the current land use at KS010, which consists primarily of pavement, buildings, and maintained grasses, it is unlikely that suitable habitat exists for any of the species listed as potentially occurring in Barton County.

**Other Considerations:** KS010 lies within the 100-year floodplain of the Arkansas River.

**Management Issues, and Concerns:** None

(Updated CMM 26MAR19)  
(QA/QC STL 16DEC19)



## KS013/20735 – Low Resource

### Independence ARC

620 W. Oak Street  
Independence, KS 67301

County: Montgomery

Real Property Report Acres: 5.17

Building Count: 3

% Cover: Paved Road/Parking (57%)  
Maintained Grass (25%)  
Gravel Road/Parking (9%)  
Buildings (7%)  
Drainage Ditch (2%)  
(No change CMM 19DEC18)

Last Field Survey: 2009



The Independence ARC is located in the city of Independence, KS and consists of a ARC, an OMS, an additional building, and associated parking areas. Surrounding land use includes agricultural land to the north, residential land to the south, residential and agricultural land to the west, and commercial land to the east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the land and three buildings that comprise KS013. (No change CMM 19DEC18)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site. According to the NWI data, a PABFx wetland is located approximately 950 feet northwest of the site. (Verified unchanged from NWI website data CMM 19DEC18)

### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*).

**Shrub layer** - red mulberry (*Morus rubra*).

**Canopy layer** - honey locust (*Gleditsia triacanthos*) and pin oak (*Quercus palustris*).

At the time of the 2009 field survey the trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

The drainage ditch along the southern boundary contained herbaceous vegetation only. Species recorded in the ditch included narrow-leaf cattail (*Typha angustifolia*), goldenrod (*Solidago*), fescue (*Festuca*), and Johnson grass (*Sorghum halepense*) (invasive-exotic species).

The Johnson grass documented in this community was present in low density only.

**Wildlife:** Wildlife observed during the 2009 site survey included blue jay and killdeer.

## Listed Species:

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT),
American burying beetle	( <i>Nicrophorus americanus</i> , FE, SE),
Neosho mucket	( <i>Lampsilis rafinesqueana</i> , FE, SE),
Rabbitsfoot	( <i>Quadrula cylindrical cylindrica</i> , FT, SE),
Eastern spotted skunk	( <i>Spilogale putorius</i> , SE).

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 26MAR19 Verified CMM 26MAR19)

Given the current land use at KS013, which consists primarily of pavement, buildings, parking areas, and maintained grasses, it is unlikely that suitable habitat exists for any of these species.

There is little to no habitat for the species list. There are no mature trees for the Northern Long-eared bat, no suitable aquatic habitat for the mussels (Neosho mucket, Rabbitsfoot), and no habitat for the burying beetle as they prefer grasslands and open oak hickory forests.

The Kansas Natural Heritage Inventory (KNHI) reported an area of critical habitat for the eastern spotted skunk (*Spilogale putorius*) either on the site or within 1,000 feet of the site. The precise location of this critical habitat was not provided, nor is it detailed in the species county range maps available through the KDWP web site (<http://kdwp.state.ks.us/news/Other-Services/Threatened-and-Endangered-Species/Species-in-Need-of-Conservation-SINC/Range-Maps>). State-designated critical habitat in Kansas is legally protected under the Kansas Nongame and Endangered Species Conservation Act, and the protections are administered by KDWP.

Eastern spotted skunks prefer forest edges and upland prairie grasslands, especially where rock outcrops and shrub clumps are present. Woody fencerows and abandoned farm buildings are also important habitat for eastern spotted skunks.

KS013 has no potentially suitable habitat for the eastern spotted skunk.

## **Other Considerations**

During the 2009 field survey, a drainage ditch was identified on the southern boundary of the site. This drainage ditch flows westwards through the site. There are two distinct portions to this drainage ditch: the western portion from the western boundary of the site to the driveway entrance and the eastern portion from the driveway to the eastern boundary. The western portion has a uniform 4-foot wide concrete channel, and was holding approximately 1 inch of standing water. The eastern portion of the ditch has an average width of 2 feet, was dry, and was partially vegetated in the unmowed areas.

## **Management Issues, and Concerns**

At the time of the 2009 field survey, Johnson grass (Johnson grass is considered invasive-exotic by the USDA (2009)) was documented in this community was present in low density only. **The Kansas Department of Agriculture's Noxious Weed Control Program classifies Johnson grass as a noxious weed.** The Weed Control Program provides technical assistance on methods of control. **The Kansas Noxious Weed Law requires organizations to control and eradicate the species declared to be noxious.**

(Updated CMM 26MAR19)  
(QA/QC STL 16DEC19)

## KS014/20769 – Low Resource

### New Century ARC/ASF #37

221 Gardner Drive, Suite #1  
New Century ASF, KS 66031

County: Johnson

Real Property Report Acres: 17.63

Building Count 2

% Cover: Paved Road/Parking (87%)

Buildings (8%)

Maintained Grass (5%)

(No change CMM 19DEC18)

Last Field Survey: 2009



The New Century ARC/ASF #37 is located in the city of New Century ASF, KS and consists of a ARC/ASF, an OMS, and associated parking areas. Surrounding land use includes commercial land to the north, east, and south, and commercial (airport) land to the east.

### Land Use

The site is used for administrative services, classroom training, light vehicle/helicopter maintenance, and flight operations. The 88th RD owns the two buildings that comprise KS014. The land that comprises KS014 is partially owned (15.97 acres) and partially leased (1.66 acres). (No change CMM 19DEC18)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site. According to the NWI data, two palustrine unconsolidated bottom (PUBFx) wetlands are located approximately 700 feet southwest and 1,000 feet southwest of the site. (Verified unchanged NWI website data CMM 19DEC18)

### Identified Species:

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

**Shrub layer** - yew (*Taxus baccata*)

**Canopy layer** - Bradford pear (*Pyrus calleryana*) and pin oak (*Quercus palustris*).

The Bradford pear tree is an invasive-exotic species, though **not** classified as noxious in Kansas.

At the time of the 2009 field survey the trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** The only wildlife observed during the 2009 site survey was killdeer (*Charadrius vociferous*). Passerine nests were observed in several pin oak and Virginia pine trees located on the site.

### Listed Species:

Northern long-eared bat (*Myotis septentrionalis*, FT),

Mead's milkweed (*Asclepias meadii*, FT),

Pallid sturgeon (*Scaphirhynchus albus*, FE, SE).

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 26MAR19)

Given the current land use at KS014, which consists primarily of pavement, buildings, and maintained grasses, it is unlikely that suitable habitat exists for any of the flora and fauna species listed as potentially occurring in Johnson County. (No habitat verified CMM 26MAR19).

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 26MAR19)  
(QA/QC STL 16DEC19)

## KS015/20747 – Low Resource

### Trembly White ARC

1325 N. 78<sup>th</sup> Street, Kansas City, KS 66112

County: Wyandotte

Real Property Report Acres: 6.62

Building Count 2

% Cover: Maintained Grass (50%)  
Paved Road/Parking (41%)  
Buildings (9%)  
(No change CMM 20DEC18)

Last Field Survey: 2009



The Trembly White ARC is located in the city of Kansas City, KS and consists of an ARC, an OMS, and associated parking areas. Surrounding land use includes residential land to the north, south, and east (apartments), and commercial land to the west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the two buildings that comprise KS015. The land that comprises KS015 is partially owned (6.56 acres), partially licensed (0.03 acres), and partially under an easement agreement (0.03 acres). (No change CMM 20DEC18)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 20DEC18)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

***Shrub layer*** - Japanese barberry (invasive-exotic species) and privet (invasive-exotic species)

***Canopy layer*** - pin oak, Scots pine, sugar maple (*Acer saccharum*) and ash trees

Amur honeysuckle, Japanese barberry, and privet are widely recognized as an invasive-exotic species. These invasive-exotic species were present in low densities only and are **not** listed as noxious species by the Kansas Department of Agriculture's (KDA) Noxious Weed Control Program (2019).

At the time of the 2009, field survey the trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), and blue jay (*Cyanocitta cristata*).

### **Listed Species:**

Northern long-eared bat (*Myotis septentrionalis*, FT)  
Pallid sturgeon (*Scaphirhynchus albus*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 26MAR19)

There are no mature trees or forest habitat on site that could support Northern long-eared bats. There is no aquatic habitat on site to support the Pallid sturgeon. (No habitat verified CMM 26MAR19)

**Other Considerations:** None

### **Management Issues, and Concerns**

At the time of the 2009 field survey, it was noted that Amur honeysuckle is widely recognized as an invasive-exotic species. Amur honeysuckle was recorded as a non-dominant species within this vegetation community (shrub layer). Additionally, Japanese barberry and privet are also recognized as invasive-exotic species. **These invasive exotic species were present in low densities only and are not considered noxious weeds (KDA, 2019).**

(Updated CMM 26MAR19)  
(QA/QC STL 17DEC19)



## KS016/20775 – Low Resource

### Lawrence ARC

2100 Iowa Street  
Lawrence, KS 66046

County: Douglas

Real Property Report Acres: 5.21

Building Count: 3

% Cover: Maintained Grass (56%)  
Paved Road/Parking (31%)  
Buildings (12%)  
Drainage Ditch (1%)  
(No change CMM 20DEC18)

Last Field Survey: 2009



The Lawrence ARC is located in the city of Lawrence, KS and consists of a ARC, an OMS, an additional building, and associated parking areas. Surrounding land use includes commercial land to the north, south, and west, and residential property to the east.

### Land Use

The site is used for administrative services, classroom training, storage, and light vehicle maintenance. The 88th RD owns the land and three buildings that comprise KS016. (No change CMM 20DEC18)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 20DEC18)

#### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

***Shrub layer*** – None present.

***Canopy layer*** - black locust (*Robinia pseudoacacia*), Scots pine (*Pinus sylvestris*), and sugar maple (*Acer saccharum*).

No invasive-exotic species were documented in this community.

At the time of the 2009 field survey the trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included house sparrow and turkey vulture.

#### **Listed Species:**

Mead's milkweed	( <i>Asclepias meadii</i> , FT)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT)
Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT)
Topeka shiner	( <i>Notropis Topeka</i> , FE, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 20DEC18)

Mead's milkweed requires undisturbed prairie, no aquatic habitat at KS016 for the pallid sturgeon or Topeka shiner, no prairie wetlands for the orchid and there are no mature trees for bat roosting or hibernacula. (No habitat verified CMM 20DEC18)

### **Other Considerations**

During the 2009 field survey, a man-made drainage ditch was identified on the eastern side of the site. This drainage ditch receives surface runoff from parking areas and flows toward the southeastern corner of the site, where it exits the property. The substrate of this drainage ditch is silt, and the channel is partially vegetated. Species composition of channel vegetation reflects that of the maintained lawn. At the time of the survey, some portions of the drainage ditch contained standing water, with an average depth of 2 inches.

**Management Issues, and Concerns:** None

(Updated CMM 27MAR19)  
(QA/QC STL 17DEC19)



## KS019/20765 – Low Resource

### Manhattan ARC

715 Griffith Drive,  
Manhattan, KS 66502

County: Pottawatomie

Real Property Report Acres: 4.00

Building Count: 2

% Cover: Maintained Grass (51%)  
Paved Road/Parking (34%)  
Buildings (15%)  
(No change CMM 20DEC18)

Last Field Survey: 2009



The Manhattan ARC is located in the city of Manhattan, KS and consists of a ARC, an OMS, and associated parking areas. Surrounding land use is entirely residential.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the land and two buildings that comprise KS019. (No change CMM 20DEC18)

### Natural Resources

**EPA Ecoregion:** Flint Hills

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 20DEC18)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*)

***Shrub layer*** - juniper (*Juniperus*).

***Canopy layer*** - redbud (*Cercis canadensis*) and honey locust (*Gleditsia triacanthos*).

No invasive-exotic species were documented in this community.

At the time of the 2009 field survey, trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included fox squirrel (*Sciurus niger*), turkey vulture (*Cathartes aura*), and black-capped chickadee (*Poecile atricapillus*).

### **Listed Species:**

Interior least tern	( <i>Sterna antillarum</i> , FE, SE),
Piping plover	( <i>Charadrius melodus</i> , FT, ST),
Topeka shiner	( <i>Notropis topeka</i> , FE, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 20DEC18)

Given the current land use at KS019, which consists primarily of pavement, buildings, parking areas, and maintained grasses, it is unlikely that suitable habitat exists for any of these fauna species listed as potentially occurring within the site. (No habitat verified CMM 20DEC18)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 20DEC18)

(QA/QC STL 17DEC19)

## KS023/20767 – Low Resource

### Osage City ARC

1521 Laing Street,  
Osage City, KS 66523

County: Osage

Real Property Report Acres: 10.00

Building Count: 3

% Cover: Maintained Grass (55%)  
Paved Road/Parking (31%)  
Buildings (10%)  
Drainage Ditch (2%)

Shrub/Scrub (2%)  
(No change CMM 20DEC18)

Last Field Survey: 2009



The Osage City ARC is located in Osage City, KS and consists of a ARC, an OMS, an additional building, and associated parking areas. Surrounding land use includes agricultural land to the north and west, undeveloped land to the south, and commercial land to the east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD leases the land and owns the three buildings that comprise KS023. (No change CMM 20DEC18)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 20DEC18)

### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

***Shrub layer*** - None present.

***Canopy layer*** - green ash (*Fraxinus pennsylvanica*) and Bradford pear (*Pyrus calleryana*)

The Bradford pear tree is an invasive-exotic species, though not classified as noxious in Kansas.

At the time of the 2009 field survey, trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included northern cardinal (*Cardinalis cardinalis*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaidura macroura*), and fox squirrel (*Sciurus niger*).

### **Listed Species:**

Topeka shiner (*Notropis Topeka*, FE, ST)  
Western prairie fringed orchid (*Platanthera praeclara*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 20DEC18)

No aquatic habitat exists on the site for the Topeka shiner and no prairie wetlands for the orchid at the site. (No habitat verified CMM 20DEC18)

### **Other Considerations:**

During the 2009 field survey, a man-made drainage ditch was identified that drains northwest from the motor pool in the central area of the site to the western boundary. This drainage ditch then continues north along the western boundary of KS023. Field survey indicated that this drainage ditch was in the process of being converted into a 2-foot wide concrete gutter. At the time of the survey, the portion of the drainage ditch running northwest through KS023 had already been constructed. The portion of the drainage ditch located adjacent to the western boundary had been cleared of vegetation but no concrete gutter had been installed. This portion of the drainage ditch was uniformly channelized (approximately 2 feet wide) with a silt substrate. All portions of the drainage ditch were without sinuosity. No water was observed in this drainage at the time of the survey.

A second roadside ditch was identified along the northern boundary of the property adjacent to the road. This drainage ditch had a silt substrate, was without sinuosity, and was uniformly channelized (approximately 1 foot wide on average). The maintained lawn is mown up to the channel on both banks of this ditch. Although shallow water (maximum depth of 1 inch) was located in a few portions of the ditch, no free-flowing water was observed.

An unnamed tributary of Mud Creek is located approximately 800 feet northwest of the site.

### **Management Issues, and Concerns: None**

(Updated CMM 20DEC18)  
(QA/QC STL 17DEC19)

## KS026/20768 – Low Resource Parsons ARC

2700 Southern Avenue  
Parsons, KS 67357

**County:** Labette

**Real Property Report Acres:** 5.00

**Building Count:** 3

**% Cover:** Paved Road/Parking (55%)

Maintained Grass (30%)

Buildings (14%)

Grassland/Field (1%)

(No change CMM 22JAN19)

**Last Field Survey:** 2009



The Parsons ARC is located in the city of Parsons, KS and consists of an ARC, OMS, AMSA, and associated parking areas. Surrounding land use includes residential property to the north, agricultural land to the south, west, and undeveloped forest and agricultural land to the east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD leases the land and owns the three buildings that comprise KS026. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 22JAN19)

#### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*).

***Shrub layer*** - flowering dogwood (*Cornus florida*)

***Canopy layer*** - pin oak (*Quercus palustris*) and Siberian elm (*Ulmus pumila*)

The grassland/field herbaceous layer is dominated by fox sedge (*Carex vulpinoidea*).

No shrub or canopy layer is present.

No invasive-exotic species were documented in this community.

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included northern mockingbird (*Mimus polyglottos*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), white-tailed deer (*Odocoileus virginianus*), and raccoon (*Procyon lotor*). Small mammal burrows (possibly chipmunk (*Marmotini spp.*) or ground squirrel (*Marmotini spp.*)) were noted in the southwestern corner of the site.

**Listed Species:**

Neosho madtom	( <i>Noturus placidus</i> , FT, ST),
Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT),
Neosho Mucket	( <i>Lampsilis rafinesqueana</i> , FE, SE),
Rabbitsfoot	( <i>Quadrula cylindrical cylindrical</i> , FT, SE),
American Burying Beetle	( <i>Nicrophorus americanus</i> , FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 29MAY19)

Due to the surrounding area being a fully disturbed site bereft of water resources, there is no habitat to support any species listed as potentially occurring at this site. (No habitat verified CMM 29MAY19)

**Other Considerations:**

The central and southern portions of KS026 are located within the 100-year floodplain of Little Labette Creek. Prior to the initiation of any development within the 100-year floodplain, coordination with the City of Parsons will be required. A floodplain permit must be granted, and an elevation certificate is required for certain types of development activities.

**Management Issues, and Concerns:** None

(Updated CMM 29MAY19)  
(QA/QC STL 17DEC19)



## KS027/20780 – Low Resource

### Pittsburg ARC

1310 E. Atkinson Avenue  
Pittsburg, KS 66762

County: Crawford

Real Property Report Acres: 6.61

Building Count: 1  
% Cover: Maintained Grass (54%)  
Paved Road/Parking (39%)  
Buildings (5%)  
Drainage Ditch (2%)  
(No change CMM 22JAN19)



Last Field Survey: 2009

The Pittsburg ARC is located in the city of Pittsburg, KS and consists of a ARC/OMS and associated parking areas. Surrounding land use includes undeveloped land to the north, and commercial land to the south, west, and east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD leases the land and owns the building that comprises KS027. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*) and white clover (*Trifolium repens*).

***Shrub layer*** - ground juniper (*Juniperus communis*)

***Canopy layer*** - Shumard's oak (*Quercus shumardii*) and black locust (*Robinia pseudoacacia*)

The following non-dominant invasive-exotic species was documented in this community: Johnson grass (*Sorghum halepense*). **This invasive-exotic species is present at low density and is listed as noxious by the Kansas Department of Agriculture's Noxious Weed Control Program (2019) and the USDA (2019).**

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 field survey included killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*), and American crow (*Columba livia*). Small mammal burrows (likely ground squirrel or chipmunk) burrows were identified.

### **Listed Species:**

Gray bat (*Myotis grisescens*, FE, SE)  
Northern Long-eared bat (*Myotis septentrionalis*, FT)  
Mead's milkweed (*Asclepias meadii*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 3JUN19)

No habitat is present on KS027 to support populations of neither the bats nor prairie habitat to support the Mead's milkweed. (No habitat verified CMM 3JUN19)

### **Other Considerations**

During the 2009 field survey, a man-made drainage ditch was identified on the western boundary of KS027. The drainage ditch flows southwards and empties into an unnamed tributary of East Cow Creek. This drainage ditch had: a concrete substrate, was without sinuosity, and was uniformly channelized (approximately 2 feet wide). Although the ditch had an average water depth of approximately 0.5 inch, no free-flowing water was observed.

Nine unnamed ponds are located within 1,000 feet of the site: 100 feet north, 275 feet north, 300 feet south, 300 feet northeast, two 400 feet north, 450 feet north, 550 feet north, and 650 feet north of the site.

### **Management Issues, and Concerns**

**The USDA (2009) and Kansas Department of Agriculture (2003) consider Johnson grass as a noxious invasive-exotic, steps should be taken to control/eradicate.**

(Updated CMM 3JUN19)  
(QA/QC STL 17DEC19)



## KS029/20785– Low Resource

### Salina ARC

1700 S. Broadway Boulevard  
Salina, KS 67401

County: Saline

Real Property Report Acres: 4.87

Building Count: 2

% Cover: Paved Road/Parking (59%)

Maintained Grass (32%)

Buildings (9%)

(No change CMM 22JAN19)

Last Field Survey: 2009



The Salina ARC is located in the city of Salina, KS and consists of an ARC, OMS, and associated parking areas. Surrounding land use includes recreational/commercial land to the north and residential property to the south, west, and east.

### Land Use

The site is used for administrative services, classroom training, storage, and light vehicle maintenance. The 88th RD owns the land and two buildings that comprise KS029. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### Identified Species:

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*), and white clover (*Trifolium repens*).

**Shrub layer** - holly (*Ilex spp.*) and Japanese barberry (*Berberis thunbergii*)

**Canopy layer** - bald cypress (*Taxodium distichum*), sugar maple (*Acer saccharum*), and honey locust (*Gleditsia triacanthos*)

Japanese barberry is an exotic species, however not considered noxious by the Kansas Department of Agriculture.

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included fox squirrel (*Sciurus niger*), American robin (*Turdus migratorius*), blue jay (*Cyanocitta cristata*), European starling (*Sturnus vulgaris*), and mourning dove (*Zenaida macroura*).

### Listed Species:

Northern long-eared bat (*Myotis septentrionalis*, FT)

Whooping crane (*Grus americana*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

KS029 supports neither roost or hibernaculum opportunities for the Northern Long-eared bat nor marsh/wetlands that could potentially support a population of whooping crane. (No habitat verified CMM 4JUN19)

**Other Considerations:** KS029 lies within the 500-year floodplain of the Smokey Hill River.

**Management Issues, and Concerns:** None.

(Updated CMM 4JUN19)  
(QA/QC STL 17DEC19)

## KS032/20799 – Low Resource

### Topeka ARC

500 SW 42<sup>nd</sup> Street  
Topeka, KS 66609

County: Shawnee

Real Property Report Acres: 11.69

Building Count: 2

% Cover: Paved Road/Parking (45%),  
Maintained Grass (44%)  
Buildings (11%)  
(No change CMM 22JAN19)

Last Field Survey: 2009



The Topeka ARC is located in the city of Topeka, KS and consists of an ARC, OMS, and associated parking areas. Surrounding land use includes roadways and commercial land to the north and west, and commercial land to the south and east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the land and buildings that comprise KS032. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site. According to the NWI data, a palustrine aquatic bed (PABFh) wetland is located approximately 900 feet southeast of the site. (Verified unchanged NWI website data CMM 22JAN19)

### Identified Species:

**Vegetation:** The maintained lawn/herbaceous layer is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

**Shrub layer** - redbud (*Cercis canadensis*) and white mulberry (*Morus alba*; invasive-exotic species)

**Canopy layer** - Virginia pine (*Pinus virginiana*), Scotch pine (*Pinus sylvestris*), and black locust (*Robinia pseudoacacia*)

No listed invasive-exotic species were documented in this community. However, despite their omission from these lists, Amur honeysuckle (*Lonicera maackii*) and white mulberry (*Morus alba*) are widely recognized as invasive-exotic species. Amur honeysuckle (*Lonicera maackii*) was recorded as non-dominant species within this vegetation community. **These invasive-exotic species are present in low densities and are not classified as noxious by the Kansas Department of Agriculture.**

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included mourning dove (*Zenaida macroura*) and European starling (*Sturnus vulgaris*).

**Listed Species:**

Northern long-eared bat (*Myotis septentrionalis*, FT)  
Interior least tern (*Sterna antillarum*, FE, SE)  
Topeka shiner (*Notropis topeka*, FE, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

No suitable habitat is present for the least tern (riparian habitat along major river systems) or Topeka shiner (aquatic habitat) on KS032. It is unlikely that the Northern long-eared bat would use the site for foraging due to its proximity to the interstate and lack of foraging corridors and no suitable roost trees exist. (No habitat verified CMM 4JUN19)

**Other Considerations:** None

**Management Issues, and Concerns**

At the time of the 2009 field survey it was noted that Amur honeysuckle (*Lonicera maackii*) and white mulberry (*Morus alba*) are widely recognized as invasive-exotic species. Amur honeysuckle was recorded as non-dominant species within this vegetation community.

**These invasive-exotic species are present in low densities and are not considered noxious by the Kansas Department of Agriculture.**

(Updated CMM 4JUN19)  
(QA/QC STL17DEC19)

## KS037/20825 – Low Resource

### Lanny J. Wallace ARC/AMSA #38

3130 George Washington Blvd.  
Wichita, KS 67210

County: Sedgwick

Real Property Report Acres: 18.26

Building Count: 3

% Cover: Paved Road/Parking (54.89%)

Maintained Grass (28.49%)

Buildings (16.62%)

(No change CMM 22JAN19)

Last Field Survey: 2013



The Lanny J Wallace ARC/AMSA #38 is located in the city of Wichita, KS and consists of an ARC, OMS/AMSA, an additional building, and associated parking areas. Surrounding land use includes developed military land (McConnell Air Force Base) to the north, south, and west, and residential property to the east.

### Land Use

The site is used for administrative services, classroom training, storage, and vehicle maintenance. The 88th RD permits 0.80 acres, owns 17.46 acres, and owns the three buildings that comprise KS037. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

***Shrub layer*** - burning bush (*Euonymus alatus*) and Japanese barberry (*Berberis thunbergii*)

***Canopy layer*** - Virginia pine (*Pinus virginiana*), sycamore, and pin oak (*Quercus palustris*)

**Japanese barberry is an exotic species, however not classified as noxious by the Kansas Department of Agriculture.**

The vegetation community adjacent to and within the drainage ditch located along the northern border is dominated by upright sedge (*Carex stricta*), and spikerush (*Eleocharis spp.*) in the herbaceous layer.

No shrub or canopy layers are present.

At the time of the 2009 field survey trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2013 site survey included barn swallow (*Hirundo rustica*), American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*), and rock pigeon (*Columba livia*).

**Listed Species:**

Northern long-eared bat (*Myotis septentrionalis*, FT)

Interior least tern (*Sterna antillarum*, FE, SE)

Whooping crane (*Grus americana*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

No potentially suitable habitat exists at KS037 to support the species listed as potentially occurring on this site. (No habitat verified CMM 4JUN19)

**Other Considerations**

Two man-made drainage ditches occur at KS037; one approximately 20 feet south of the northern boundary of the site and the other near the center of the site. Both flow westward across the site toward Washington Boulevard. The substrate of this drainage ditch consisted primarily of gravel (70 percent) and mud (30 percent). Average water depth ranged from 0.5 to 2 inches (after recent rain). The average width of the drainage ditch is 18 inches. These ditches are designed to receive surface runoff from surrounding upland parking areas.

**Management Issues, and Concerns:** None

(Updated CMM 4JUN19)  
(QA/QC STL 17DEC19)



## KS068/20966 – Low Resource

### New Century Land

223 Gardner Drive,  
New Century, KS 66031

County: Johnson

Real Property Report Acres: 5.38

Building Count 2

% Cover: Gravel Road/Parking (74%)  
Shrub/Scrub (26%)  
(No change CMM 22JAN19)

Last Field Survey- 2009



The New Century Land is located in the city of New Century, KS and consists of land only. Surrounding land use is entirely commercial.

### Land Use

The site is used for vehicle storage. The 88th RD owns the land that comprises KS068. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site. According to the NWI data, three wetlands are located within 1,000 feet of the site: a palustrine unconsolidated bottom (PUBFx) wetland located approximately 600 feet southeast of the site, another PUBFx wetland located approximately 900 feet southeast of the site, and a palustrine aquatic bed (PABFh) wetland located approximately 800 feet southwest of the site. (Verified unchanged NWI website data CMM 22JAN19)

### Identified Species:

**Vegetation:** The *shrub/scrub herbaceous layer* is dominated by goldenrod (*Solidago spp.*), prairie sunflower (*Helianthus petiolaris*), and panicgrass (*Panicum spp.*)

**Shrub layer** - white mulberry (*Morus alba*) (invasive-exotic species).

**Canopy layer** - none present

Although no listed invasive-exotic species were documented in this community, white mulberry is widely recognized as an invasive-exotic species. At the time of the 2009 field survey **this species is present in low density and is not classified as noxious by the Kansas Department of Agriculture.**

**Wildlife:** Wildlife observed during the 2009 field survey included killdeer (*Charadrius vociferous*), mourning dove (*Zenaida macroura*), and rock pigeon (*Columba livia*). Raccoon (*Procyon lotor*) tracks were also observed on the site.

### Listed Species:

Northern long-eared bat (*Myotis septentrionalis*, FT)  
Mead's milkweed (*Asclepias meadii*, FT)  
Pallid sturgeon (*Scaphirhynchus albus*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

No aquatic habitat exists at KS068 to support a population of Northern long-eared bat, Mead's Milkweed, or pallid sturgeon. (No habitat verified CMM 4JUN19)

**Other Considerations:** None

**Management Issues, and Concerns**

At the time of the 2009 field survey, it was noted that white mulberry, widely recognized as an invasive-exotic species, was noted on the site. This species is present in low density and is not classified as noxious by the Kansas Department of Agriculture.

(Updated CMM 4JUN19)  
(QA/QC STL 17DEC19)



## KS083/20968 – Low Resource

### 1SG Robert L. Kuhn ARC

880 Commerce Parkway  
Hays, KS 67601

County: Ellis

Real Property Report Acres: 15.04

Building Count: 3  
% Cover: Maintained Grass (78%)  
Paved Road/Parking (11%)  
Buildings (6%)  
Drainage Ditch (4%)  
Open Water (1%)  
(No change CMM 22JAN19)



Last Field Survey: 2009

The 1SG Robert L. Kuhn ARC is located in the city of Hays, KS and consists of an ARC, OMS, storage building, and associated parking areas. Surrounding land use includes agricultural land to the north, west, and east, and agricultural and residential land to the south.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the land and three buildings that comprise KS083. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### Identified Species:

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

**Shrub layer** - common juniper (*Juniperus communis*)

**Canopy layer** - greenspire linden (*Tilia cordata*) and Scots pine (*Pinus sylvestris*)

At the time of the 2009 field survey, trees observed at this site appeared healthy and no signs of disease were identified.

No trees at this site are listed on the Kansas Champion Tree List.

No invasive-exotic species were documented in this community.

**Wildlife:** Wildlife observed during the 2009 site survey included eastern cottontail and black-tailed jackrabbit.

### Listed Species:

Whooping crane (*Grus americana*, FE, SE)

Northern long-eared bat (*Myotis septentrionalis*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

There is no potentially suitable habitat present at KS083 for the whooping crane (marsh/wetland habitat) or the Northern long-eared bat. (No habitat verified CMM 4JUN19)

**Other Considerations:**

A portion of KS083 is located within the 100-year floodplain of an unnamed tributary of Big Creek.

**Management Issues, and Concerns:** None

(Updated CMM 4JUN19)  
(QA/QC STL 17DEC19)

## KS085/20967 – Low Resource

### Leavenworth ARC

2012 Metropolitan Ave,  
Leavenworth, KS 66048

County: Leavenworth

Real Property Report Acres: 23.63

Building Count: 2

% Cover: Grassland/Field (55%)  
Maintained Grass (16%)  
Paved Road/Parking (16%)  
Buildings (12%)  
Drainage Ditch (1%)  
(No change CMM 22JAN19)



Last Field Survey: 2009

The Leavenworth ARC is located in the city of Leavenworth, KS and consists of a ARC, an OMS, and associated parking areas. Surrounding land use includes roadway and agricultural land to the north, residential property to the south, undeveloped land to the west, and agricultural land to the east.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD permits the land and own the buildings that comprise KS085.  
(No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### Identified Species:

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*), fescue (*Festuca spp.*), and rye (*Secale cereale*)

**Shrub layer** - None present.

**Canopy layer** - green ash (*Fraxinus pennsylvanica*) and redbud (*Cercis canadensis*)

No invasive-exotic species were documented in this community.

The grassland/field was planted with native warm season grasses such as big bluestem (*Andropogon gerardi*), little blue stem (*Schizachyrium scoparium*) and switch grass (*Panicum virgatum*). However, the grassland area is dominated by undesirable clover species (*Trifolium spp.*), Johnson grass (*Sorghum halepense*), thistles, and encroaching woody species such as cottonwood (*Populus spp.*), elm (*Ulmus spp.*), honey locust (*Gleditsia triacanthos*), and mulberry (*Morus spp.*).

Johnson grass is considered invasive-exotic by the USDA (2009) and KDA (2003).

No canopy layer is present.

Additionally, despite its omission from these lists, Amur honeysuckle is present and is widely recognized as an invasive-exotic species. **Amur honeysuckle was present in low density.**

At the time of the 2009 field survey, trees observed at this site appeared healthy and no signs of disease were identified.

No trees are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2009 site survey included red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), white-tailed deer (*Odocoileus virginianus*), and raccoon (*Procyon lotor*).

### **Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Mead's milkweed	( <i>Asclepias meadii</i> , FT)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 4JUN19)

At the time of the 2008 field survey, limited forested area to the west of the site that could support bat foraging but no suitable mature trees for roosting or caves for hibernaculum. There is no aquatic habitat present at KS085 to support populations of the pallid sturgeon. No wetlands to support Western prairie fringed orchid or prairie for Mead's milkweed. (No habitat verified CMM 4JUN19)

### **Other Considerations**

A single man-made drainage ditch was identified during the field survey. This drainage ditch flows along the site boundary from the northern portion of the site to the southeast corner. This drainage ditch appeared to be a man-made storm water drainage, and was dry during the field survey. The channel was a uniform 1 to 2 feet in width with no sinuosity, and with primarily a silt/mud substrate. Some portions of this channel contain rip-rap, while other areas are vegetated. This low-lying channel collects surface water from both upland areas on the site and from the adjacent roadway to the north. Unmaintained grassland formed both banks of this drainage ditch.

Two additional surface waters are located within 1,000 feet of this site: Three mile Creek is located approximately 900 feet south of KS085, and an unnamed tributary of Three mile Creek is located approximately 550 feet northeast of KS085.

### **Management Issues, and Concerns:**

**Johnson grass is considered invasive-exotic by the USDA (2009) and a noxious species by the KDA (2003) and steps should be taken to control/eradicate it from the site**

(Updated CMM 4JUN19)  
(QA/QC STL 17DEC19)

## KS100/20966 – Low Resource

### New Century ARC/AMSA #57

300 Navy Drive  
New Century, KS 66031

County: Johnson

Real Property Report Acres: 9.94

Building Count: 2

% Cover: Mowed Lawn (43.4%),  
Paved Road/Parking (42.4%)  
Buildings (14.2%)  
(No change CMM 22JAN19)



Last Field Survey - 2013

The New Century ARC/AMSA #57 is located in the city of New Century, KS, consists of two buildings/structures, and associated parking areas. Surrounding land use includes commercial buildings to the north, an industrial site and a DuPont plant to the south, open grass land and pond to the southwest, and commercial property to the east.

### Land Use

The site is used for an administration office and vehicle storage and maintenance. The 88th RD owns the land and two buildings that comprise KS100. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Irregular Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** Vegetation on the site includes mowed lawn and landscape plantings, shrubs, and trees.

**Canopy layer** - include white ash (*Fraxinus Americana*), honey locust (*Gleditsia triacanthos*), pin oak (*Quercus palustris*), silver maple (*Acer saccharinum*), red cedar (*Juniperus virginiana*), and crab apple (*Malus spp.*).

Many of the trees were dead or showing signs of stress. It is speculated that vegetation stress was due to the two prior years of drought. Many of the planted trees were white ash. It appeared that approximately 30 ash trees had been planted in the past few years. Approximately 13 were dead and several were stressed.

At the time of the 2013 field survey, no invasive species of any consequence were observed at the site.

**Wildlife:** Wildlife observed by URS during the 2013 site survey included a number of common urban bird species, including American robin (*Turdus migratorius*), western kingbird (*Tyrannus verticalis*), European starling (*Sturnus vulgaris*), and meadowlark (*Sturnella magna*). The potential is low for mammals or herpetofauna to utilize the site other than on rare occasion.

### **Listed Species:**

Northern long-eared bat (*Myotis septentrionalis*, FT)

Pallid sturgeon (*Scaphirhynchus albus*, FE, SE)  
Mead's milkweed (*Asclepias meadii*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and KS WPT CMM 5JUN19)

There is no forested habitat for foraging or roost locations for bats. There is no aquatic habitat present at KS100 to support populations of the pallid sturgeon. Mead's milkweed occurs on untilled native prairies, which are not present at KS100. (No habitat verified CMM 5JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:**

At the time of the 2013 field survey, noted there were several unhealthy white ash trees. It appeared that approximately 30 ash trees were planted in the past few years. Approximately 13 were dead and several were showing signs of stress. If in 2013 there were 13 dead ash trees, it is more than likely there are significantly more dead trees since the 2013 field survey. **Recommend dead trees be removed unless they occur in an unmaintained/wooded area. If the trees died of disease/infestation, they must be removed according to best management practices to reduce the risk of spreading the problem.**

**Dead tree removal, especially in this area will require USFWS consultation regarding the northern longeared bat 4(d) rule\* (affective 16 FEB 2016) and subsequent key prior to any tree removal/modification activities within the white-nose syndrome (WNS) Zone.**

\* - "4(d) rule" refers to protective regulations issued under section 4(d) of the ESA for threatened species. Unlike endangered species, when a species is listed as threatened, the prohibitions identified in section 9 of the ESA do not automatically apply to that species.

(Updated CMM 5JUN19)  
(QA/QC STL 17DEC19)



## KS104/20936 - Low Resource

### Dodge City ARC

1501 S. 14<sup>th</sup> Avenue C  
Dodge City, KS 67801

County: Ford

Real Property Report Acres: 10.00

Building Count 2  
% Cover: Maintained Grass (68.7%)  
Gravel Road/Parking (19.5%)  
Buildings (12.8%)  
(No change CMM 22JAN19)



Last Field Survey - 2013

The Dodge City ARC is located in Dodge City, KS, consists of two buildings/structures, and associated parking. Surrounding land use includes agricultural land to the north, south, and west, and light industrial and residential property to the east.

### Land Use

The site is used for administration, instruction, vehicle maintenance and equipment parking. The 88th RD owns the land and buildings that comprise KS104. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** At the time of the 2013 survey, the site was newly constructed and planted with new trees and grass.

***Herbaceous layer*** - Native grasses have not established well on the site.

***Canopy layer:*** Planted trees included black oak (*Quercus velutina*), white ash (*Fraxinus americana*), and western cedar (*Thuja plicata*). One old Eurasian elm (*Ulmus spp.*) was located in the east central part of the site and was in good health. Newly planted trees observed at this site appeared to be in generally poor health. This is likely due to the previous two years of severe drought.

Invasive-exotic species were not identified at this site.

No trees at this site are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2013 site survey was limited to bird species passing by, including mourning dove (*Zenaidura macroura*), meadowlark (*Sturnella neglecta*), house sparrow (*Passer domesticus*), and American crow (*Corvus brachyrhynchos*).

**Listed Species:** None identified on-site (USFWS IPAC and KS WPT CMM 5JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 5JUN19) (QA/QC STL 17DEC19)

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## KS105/20499

### Tonganoxie USARC

17397 Chieftain Road,  
Tonganoxie, KS 66086

County: Leavenworth

Real Property Report Acres: 9.25

Building Count 2

% Cover: Maintained Grass (64.42%)  
Paved Road/Parking (25.56%)  
Unmaintained Grass (4.26%)  
Buildings (3.79%)  
Retention Basin (1.97%)



Last Field Survey - 2020

The initial NRSRVY took place in 2020.

The Tonganoxie USARC consists of two buildings/structures and associated parking. Surrounding land use includes agricultural land to the north, south and west, and a cemetery and trailer park to the east.

### Land Use

The facility is used for administration, instruction, vehicle maintenance and equipment parking. The 88th RD owns the land and buildings that comprise KS104.

### Natural Resources

**EPA Ecoregion:** Osage Cuestas

**Wetlands:** None identified on-site

### **Identified Species:**

#### **Vegetation:**

Non-native invasive species species were identified at this facility to include cutleaf teasel (*Dipsacus laciniatus*) and Johnsongrass (*Sorghum halepense*).

Maintained grass areas dominated by fescue (*Festuca*), and bluegrass (*Poa annua*).

Species observed in unmaintained and fringe areas included:

common sunflower	( <i>Helianthus annuus</i> )
red clover	( <i>Trifolium pratense</i> )
common dandelion	( <i>Taraxacum officinale</i> )
hairy white oldfield aster	( <i>Symphotrichum pilosum</i> )
marsh bristlegrass	( <i>Setaria parviflora</i> )
yellow foxtail	( <i>Setaria pumila</i> )
yarrow	( <i>Achillea millefolium</i> )
Amur honeysuckle	( <i>Lonicera maackii</i> )
Japanese bristlegrass	( <i>Setaria faberi</i> )
slippery elm	( <i>Ulmus rubra</i> )
poison ivy	( <i>Toxicodendron radicans</i> )
Siberian elm saplings	( <i>Ulmus pumila</i> )

white mulberry saplings	( <i>Morus alba</i> )
common milkweed	( <i>Asclepias syriaca</i> )
wild carrot	( <i>Daucus carota</i> )
Carolina horsenettle	( <i>Solanum carolinense</i> ),
dogbane	( <i>Apocynum cannabinum</i> )
velvetleaf	( <i>Abutilon theophrasti</i> )
spotted spurge	( <i>Euphorbia maculata</i> )
Eastern red cedar sapling	( <i>Juniperus virginiana</i> )
broadleaf cattail	( <i>Typha latifolia</i> )
great ragweed	( <i>Ambrosia trifida</i> )
cottonwood saplings	( <i>Populus deltoides</i> )
Illinois bundleflower	( <i>Desmanthus illinoensis</i> )
hedge bindweed	( <i>Calystegia sepium</i> )
cutleaf teasel	( <i>Dipsacus laciniatus</i> )
annual marsh elder	( <i>Iva annua</i> )
greasegrass	( <i>Tridens flavus</i> )
redtop panicgrass	( <i>Panicum rigidulum</i> )
dogbane	( <i>Apocynum cannabinum</i> )
big bluestem	( <i>Andropogon gerardi</i> )
common barnyard grass	( <i>Echinochloa crus-galli</i> )
sulphur cinquefoil	( <i>Potentilla recta</i> )

No trees at this facility are listed on the Kansas Champion Tree List.

**Wildlife:** Wildlife observed during the 2020 site survey included:

northern cardinal	( <i>Cardinalis cardinalis</i> )
killdeer	( <i>Charadrius vociferus</i> )
great horned owl	( <i>Bubo virginianus</i> )
red-winged blackbird	( <i>Agelaius phoeniceus</i> )
eastern meadowlark	( <i>Sturnella magna</i> )
plains garter snake	( <i>Thamnophis radix</i> )

**Listed Species:** None identified on-site

**Other Considerations:** None

**Management Issues, and Concerns:** Johnsongrass (*Sorghum halepense*) observed in the unmaintained area is categorized as a Noxious Weed in Kansas.

(Entered CMM 31MAR21)  
(QA/QC STL 31MAR2021)

## Sites in Montana

MT001 – Roysdon Hall ARC, Billings

MT008 – AMSA 75 (G) (Ft. Wm Harrison), Helena

MT029 – Butte ARC



*Intentionally blank.*

## MT001/30705 – Low Resource

### Roysdon Hall ARC

1430 Broadwater Avenue  
Billings, MT 59102

County: Yellowstone

Real Property Report Acres: 5.00

Building Count: 2

% Cover: Paved Road/Parking (69%)  
Maintained Grass (19%)  
Buildings (12%)  
(No change CMM 22JAN19)

Last Field Survey: 2008



The Roysdon Hall ARC is located in the city of Billings, MT and consists of an ARC, OMS, two storage sites, and associated parking areas. Surrounding land use includes commercial lands to the north, residential land to the south, and light industrial and commercial lands to the east and west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the land and two buildings that comprise MT001. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Northwestern Great Plains

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by turf-type fescue (*fescue spp.*) and beardtongue (*Penstemon spp.*).

**Shrub layer:** Rose bushes (*Potentilla spp.*), red barberry (*Berberis thunbergii*), juniper (*Juniperus spp.*).

**Tree layer:** Landscaping trees include white willow (*Salix alba*), glossy buckthorn (*Rhamnus frangula*), green ash (*Fraxinus pennsylvanica*), honey locust (*Gleditsia triacanthos*), linden (*Tilia spp.*), ornamental cherry (*Prunus spp.*), and crabapple (*Malus sylvestris*).

**Wildlife:** Wildlife observed during the 2008 field survey included the savannah sparrow (*Passerculus sandwichensis*). The site point of contact reported that mallards (*Anas platyrhynchos*) are occasionally observed on the site.

**Listed Species:** None identified on-site (USFWS IPAC and MT FWP CMM 5JUN19)

**Other Considerations:** None

**Management Issues, and Concerns;** None

(Updated CMM 5JUN19)  
(QA/QC STL 17DEC19)

*Intentionally blank.*



## MT008/30706 – Low Resource

### AMSA 75 (G) (Fort William Harrison)

2150 Williams Street,  
Helena, MT 59602

County: Lewis and Clark

Real Property Report Acres: 7.02

Building Count: 3

% Cover: Gravel Road/Parking (49%)

Paved Road/Parking (47%)

Bare Ground (2%)

Buildings (2%)

(No change CMM 22JAN19)

Last Field Survey: 2008



The AMSA 75 (G) (Fort William Harrison) is located in the city of Helena, MT and consists of an AMSA and associated parking areas. Surrounding land use includes Helena LTA (MT023) to the north, Montana National Guard, Fort William Harrison to the south and east, and agricultural cropland/non-native grassland to the west.

### Land Use

The site is used for vehicle storage and maintenance. The 88th RD owns the land and building that comprise MT008. (No change CMM 22JAN19)

### Natural Resources

**EPA Ecoregion:** Middle Rockies

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 22JAN19)

### **Identified Species:**

**Vegetation:** Because this site primarily consists of gravel roads, paved roads, and parking lots, MT008 is nearly devoid of vegetation. Some very small areas of unvegetated bare ground exist in areas between fences, paving, gravel, and sidewalks; however, at the time of the 2008 field survey they were not considered to be an erosion issue.

**Herbaceous layer:** Extremely sparse vegetation observed included crested wheatgrass (*Agropyron cristatum*), silver sagebrush (*Artemisia cana*), wild mustard (*Sinapis arvensis*), cheat grass (*Bromus tectorum*), spotted knapweed (*Centaurea maculosa*), lamb's quarters (*Chenopodium album*), barley grass (*Hordeum vulgare*), perennial pepperweed (*Lepidium latifolium*), common toadflax (*Linaria vulgaris*), yellow sweet clover (*Melilotus officinalis*), prairie coneflower (*Ratibida columnifera*), and prostrate vervain (*Verbena bracteata*).

**At the time of the 2008 field survey the invasive exotic species, spotted knapweed (Priority 2B), perennial pepperweed (Priority 2A), common (yellow) toadflax (Priority 2B), yellow sweet clover (not noxious), wild mustard (not noxious), and cheat grass (Priority 3 as regulated plant, not noxious) were recorded were present at low density and did not present**

**a management issue. Priorities assigned by the Montana Noxious Weed List, 2019.**

**Wildlife:** Wildlife observed during the 2008 field survey included the common raven (*Corvus corax*) and mule deer (*Odocoileus hemionus*).

**Listed Species:**

Grizzly bear	( <i>Ursus arctos horribilis</i> ; FT, ST)
Canada lynx	( <i>Lynx canadensis</i> ; FT, ST)
North American Wolverine	( <i>Gulo gulo luscus</i> ; FT proposed)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and MT FWP CMM 5JUN19)

Grizzlies use a mix of closed and open forest habitats, as well as meadows, seeps, and riparian areas. This type of habitat is not present at MT008 and the species is not likely to be present or utilize the site. (No habitat verified CMM 5JUN19)

Canada lynx generally occur in subalpine forests between 4,000 and 7,000 feet in stands composed of pure lodge pole pine (*Pinus contorta*), but can also occur in mixed stands of subalpine fir (*Abies lasiocarpa*), lodge pole pine, Douglas fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), western larch (*Larix occidentalis*) and hardwoods. This type of habitat was not observed on the site; therefore, it is highly unlikely the species would be present on or utilize the site.

There is not suitable habitat on site for the North American Wolverine due to the fully disturbed site characteristics.

**Other Considerations:** None

**Management Issues, and Concerns**

At the time of the 2008 field survey, the invasive exotic species recorded were present at low density and did not present a management issue. However, three of the species do appear on the Montana Noxious Weed List and management requirements to control/eradicate are included in that list. The 2019 Montana Noxious Weed List, assigns priorities.

At the time of the 2008 field survey three species from the 2019 Montana Noxious Weed List were identified as present in low densities:

- spotted knapweed (Priority 2B),
- perennial pepperweed (Priority 2A),
- common (yellow) toadflax (Priority 2B),

At the time it was noted at the time of the 2008 field survey that the noxious weed densities did not present a management issue however it should be included in the site's Invasive Species Management Plan.

(Updated CMM 5JUN19)  
(QA/QC STL 17DEC19)



## MT029/30843 – Low Resource

### Butte ARC

102 South Parkmont Street  
Butte, MT 59701

County: Jefferson

Real Property Report Acres: 10.01

Building Count: 2

% Cover: Grassland (Seeded) (53.8%)  
Grassland/Field (22%)  
Paved Road/Parking (10%)  
Buildings (5.1%)  
Detention Basins (5.1%)  
Gravel Road/ Parking (4.1%)  
(No change CMM 23JAN19)



Last Field Survey: 2013

The Butte ARC is located in the city of Butte, MT and consists of an ARC, associated parking area, and grasslands (natural and restored). Surrounding land use is light industrial land to the north and west, and agricultural land to the south and east.

### Land Use

The site was recently constructed and is used for administrative offices and training. The 88th RD owns the land that comprises MT029. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Middle Rockies

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 23JAN19)

### Identified Species:

**Vegetation:** Two land cover types are present: undisturbed grasslands and grasslands that were revegetated after construction of the ARC.

The site that was seeded as a native prairie shows evidence of successful establishment. Some of the most common species present were smooth brome (*Bromus inermis*), spotted knapweed (*Centaurea maculosa*) (invasive exotic species), junegrass (*Koeleria macrantha*), wheatgrass (*Thinopyrum intermedium*), silver sagebrush (*Artemisia cana*), absinthium (*Artemisia absinthium*), and common mullein (*Verbascum thapsus*).

This site is rich with grass and forb diversity; some other common species are yarrow (*Achillea millefolium*), tansy mustard (*Descurainia pinnata*), cheat grass (*Bromus tectorum*), common lambsquarters (*Chenopodium album*), and salsify (*Tragopogon porrifolius*).

The undisturbed grassland is dominated by smooth brome and wheatgrass. These native grasses may provide foraging habitat for some animal species. Since the site is fenced access is limited to small mammals, birds and insects. Migratory upland birds that utilize upland habitat may forage or rest in these grasslands as they mature.

At the time of the 2013 field survey, the spotted knapweed occurred in moderate density (approximately 2 acres of infestation) throughout the site. Knapweed was especially common within the grassland/seeded area, along the fence lines, and within the detention basins. Spotted knapweed (Priority 2B) and cheat grass (Priority 3 as regulated plant, not noxious) were recorded were present at low density and did not present a management issue. Priorities assigned by the Montana Noxious Weed List, 2019.

**Wildlife:** Wildlife observed during the 2013 field survey included the: black-billed magpie (*Pica hudsonia*), western meadowlark (*Sturnella neglecta*), mountain bluebird (*Sialia currucoides*), and common raven (*Corvus corax*). The site POC commented that mule deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), red fox (*Vulpes vulpes*), and coyote (*Canis latrans*) had been observed.

### **Listed Species:**

Grizzly bear	( <i>Ursus arctos horribilis</i> ; FT, ST)
Canada lynx	( <i>Lynx canadensis</i> ; FT, ST)
North American Wolverine	( <i>Gulo gulo luscus</i> ; FT proposed)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and MT FWP CMM 5JUN19)

There is no suitable habitat for the species listed as potentially occurring on this site. (No habitat verified CMM 5JUN19)

**Other Considerations:** None

### **Management Issues, and Concerns**

At the time of the 2013 field survey, the spotted knapweed occurred in moderate density (approximately 2 acres of infestation) throughout the site. Knapweed was especially common within the grassland/seeded area, along the fence lines, and within the detention basins. **Spotted knapweed (Priority 2B) and cheat grass (Priority 3 as regulated plant, not noxious) were recorded were present at low density and did not present a management issue. The 2019 Montana Noxious Weed List, assigns priorities and management/eradication requirements.**

(Updated CMM 5JUN19)  
(QA/QC STL 20DEC19)



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## NE003/31875 – Low Resource

### Fremont ARC

1306 N. Ridge Road Drive  
Fremont, NE 68025

County: Dodge

Real Property Report Acres: 5.00

Building Count: 2

% Cover: Maintained Grass (45%)

Paved Road/Parking (45%)

Buildings (10%)

(No change CMM 23JAN19)

Last Field Survey: 2009



The Fremont ARC is located in the city of Fremont, NE and consists of an ARC, OMS, and associated parking areas. Surrounding land use includes recreational land to the north, recreational land (baseball park) and residential property to the south, commercial land (airport) to the east, and a cemetery to the west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the two buildings and leases the land that comprises NE003. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Western Corn Belt Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 23JAN19)

### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*)

***Shrub layer:*** None present.

***Canopy layer:*** hackberry (*Celtis occidentalis*) and paradise apple (*Malus domestica*).

At the time of the 2009 field survey, no invasive-exotic species were documented in this community.

Trees observed at this site appeared to be healthy and no signs of disease were identified.

No trees are listed on the NFS Champion and Heritage Tree Program list.

**Wildlife:** Wildlife observed during the 2009 site survey included killdeer (*Charadrius vociferus*) (Partners in Flight, high regional priority species), house sparrow (*Passer domesticus*), and mourning dove (*Zenaida macroura*).

### **Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT, ST)
Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and NE G&P CMM 6JUN19)

Given the current land use at NE003, which consists primarily of pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring at this site. (No habitat verified CMM 6JUN19)

**Other Considerations:** NE003 lies within the 500-year floodplain of the Platte River.

**Management Issues, and Concerns:** None

(Updated CMM 6JUN19)  
(QA/QC STL: 23DEC19)

## NE011/31262A – Low Resource

**Norfolk ARC** (Leased Property)  
405 W. Northwestern Avenue  
Norfolk, NE 68701

**County:** Madison

**Real Property Report Acres:** 0.62

**Building Count:** 1  
**% Cover:** Gravel Road/Parking (39%)  
Maintained Grass (30%)  
Buildings (22%)  
Paved Road/Parking (9%)  
(No change CMM 23JAN19)

**Last Field Survey:** 2009



The Norfolk ARC is located in the city of Norfolk, NE and consists of an ARC and associated parking areas. Surrounding land use includes residential property to the north and commercial land to the south, west, and east.

### Land Use

The site is used for administrative services and classroom training. The 88th RD leases the land and building that comprise NE011. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Western Corn Belt Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 23JAN19)

#### **Identified Species:**

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*)

**Shrub layer:** ragweed (*Ambrosia spp.*) and ironweed (*Vernonia spp.*).

**Canopy layer:** None present.

At the time of the 2009 field survey, no invasive-exotic species were documented in this community.

**Wildlife:** The only wildlife observed during the 2009 site survey was mourning dove (*Zenaida macroura*).

#### **Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT, ST)
Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Whooping crane	( <i>Grus americana</i> , FE, SE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Topeka shiner	( <i>Notropis topeka</i> , SE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and NE G&P CMM 6JUN19)

Given the current land use at NE011, which consists primarily of gravel roads, pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring at this site. (No habitat verified CMM 6JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 6JUN19)

(QA/QC STL 34DEC19)



## NE012/3162B – Low Resource

### North Platte ARC

3111 S. Willow Street  
North Platte, NE 69101

County: Lincoln

Real Property Report Acres: 1.72

Building Count: 1

% Cover: Paved Road/Parking (52%)  
Maintained Grass (22%)  
Gravel Road/Parking (14%)  
Buildings (12%)  
(No change CMM 23JAN19)

Last Field Survey: 2009



The North Platte ARC is located in the city of North Platte, NE and consists of an ARC and associated parking areas. Surrounding land use includes commercial land to the north, south, and east, and residential property to the west.

### Land Use

The site is used for administrative services and classroom training. The 88th RD leases the land and building that comprise NE012. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 23JAN19)

### **Identified Species:**

**Vegetation:** The maintained ***lawn/herbaceous layer*** is dominated by Kentucky bluegrass (*Poa pratensis*), and crabgrass (*Digitaria spp.*).

***Shrub layer:*** None present.

***Canopy layer:*** None present.

At the time of the 2009 field survey, no invasive-exotic species were documented in this community.

**Wildlife:** The only wildlife observed during the 2009 site survey was American goldfinch (*Spinus tristis*).

### **Listed Species:**

Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Whooping crane	( <i>Grus americana</i> , FE, SE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
American burying beetle	( <i>Nicrophorus americanus</i> , FE, SE)
Blowout penstemon	( <i>Penstemon haydenii</i> , FE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and NE G&P CMM 6JUN19)

Given the current land use at NE012, which consists primarily of gravel roads, pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring at this site. (No habitat verified CMM 6JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 6JUN19)  
(QA/QC STL 23DEC2019)

## NE013/3162C – Low Resource

### AMSA #36

921 E. 6<sup>th</sup> Street  
North Platte, NE 69101

County: Lincoln

Real Property Report Acres: 0.66

Building Count: 2

% Cover: Buildings (44%),  
Gravel Road/Parking (31%)  
Paved Road/Parking (19%)  
Concrete Dock (3%)  
Maintained Grass (3%)  
(No change CMM 23JAN19)



Last Field Survey: 2009

The AMSA #36 is located in the city of North Platte, NE and consists of an AMSA and associated parking areas. Surrounding land use for the western portion of the site includes commercial land to the north, west, and east, and residential property to the south. The eastern portion of the site is entirely surrounded by commercial land.

### Land Use

The site is used for light vehicle maintenance. The 88th RD leases the land and the two buildings that comprise NE013. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Central Great Plains

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 23JAN19)

### Identified Species:

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*),

**Shrub layer:** None present

**Canopy layer:** None present

At the time of the 2019 field survey, no invasive-exotic species were documented in this community.

**Wildlife:** Wildlife observed during the 2009 site survey included mourning dove (*Zenaidura macroura*) and European starling (*Sturnus vulgaris*).

### Listed Species:

Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Whooping crane	( <i>Grus americana</i> , FE, SE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
American burying beetle	( <i>Nicrophorus americanus</i> , FE, SE)
Blowout penstemon	( <i>Penstemon haydenii</i> , FE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and NE G&P CMM 6JUN19)

Given the current land use at NE013, which consists primarily of gravel roads, pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring on this site. (No habitat verified CMM 6JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 6JUN19)  
(QA/QC STL23DEC19)

## NE023/31941 – Low Resource

### Gen John J. Pershing ARC

3700 W. O Street  
Lincoln, NE 68528

County: Lancaster

Real Property Report Acres: 10.06

Building Count: 3

% Cover: Paved Road/Parking (57.85%)  
Maintained Grass (32.09%)  
Buildings (10.06%)  
(No change CMM 23JAN19)



Last Field Survey: 2013

The Gen John J. Pershing ARC consists of an ARC, OMS, additional building, and associated parking areas. Surrounding land use includes agricultural land and roadways to the north and commercial land to the south, west, and east.

### Land Use

The site is used for administrative services, classroom training, light vehicle maintenance, and storage. The 88th RD owns the land and the three buildings that comprise NE023. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Western Corn Belt Plains

**Wetlands:** None identified on-site. According to NWI data, two wetlands are located within 1,000 feet of the site: a lacustrine littoral aquatic bed (L2ABG) wetland approximately 950 feet south of the site and a palustrine emergent (PEMA) wetland located approximately 1,000 feet south of the site. (Verified unchanged NWI website data CMM 23JAN19)

### Identified Species:

**Vegetation:** The maintained *lawn/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*)

**Shrub layer:** Bradford pear (*Pyrus calleryana*).

**Canopy layer:** White ash (*Fraxinus americana*).

Ash trees appeared to be in good condition. Approximately six were observed on the site.

At the time of the 2013 field survey, trees observed at this site appeared to be healthy, and no signs of disease were identified

The Bradford pear is an invasive species, however not listed as noxious by the Nebraska Department of Agriculture's Noxious Weed Program.

No trees are listed on the NFS Champion and Heritage Tree Program list.

**Wildlife:** The only wildlife observed during the 2013 site survey was eastern cottontail (*Sylvilagus floridanus*), Eastern meadowlark (*Sturnella magna*), and house sparrow (*Passer domesticus*).

**Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT, ST)
Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Whooping crane	( <i>Grus americana</i> , FE, SE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT, ST)
Salt Creek tiger beetle	( <i>Cicindela nevadica lincolniana</i> , FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and NE G&P CMM 6JUN19)

Given the current land use at NE023, which consists primarily of pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring on this site. (No habitat verified CMM 6JUN19)

**Other Considerations:** None

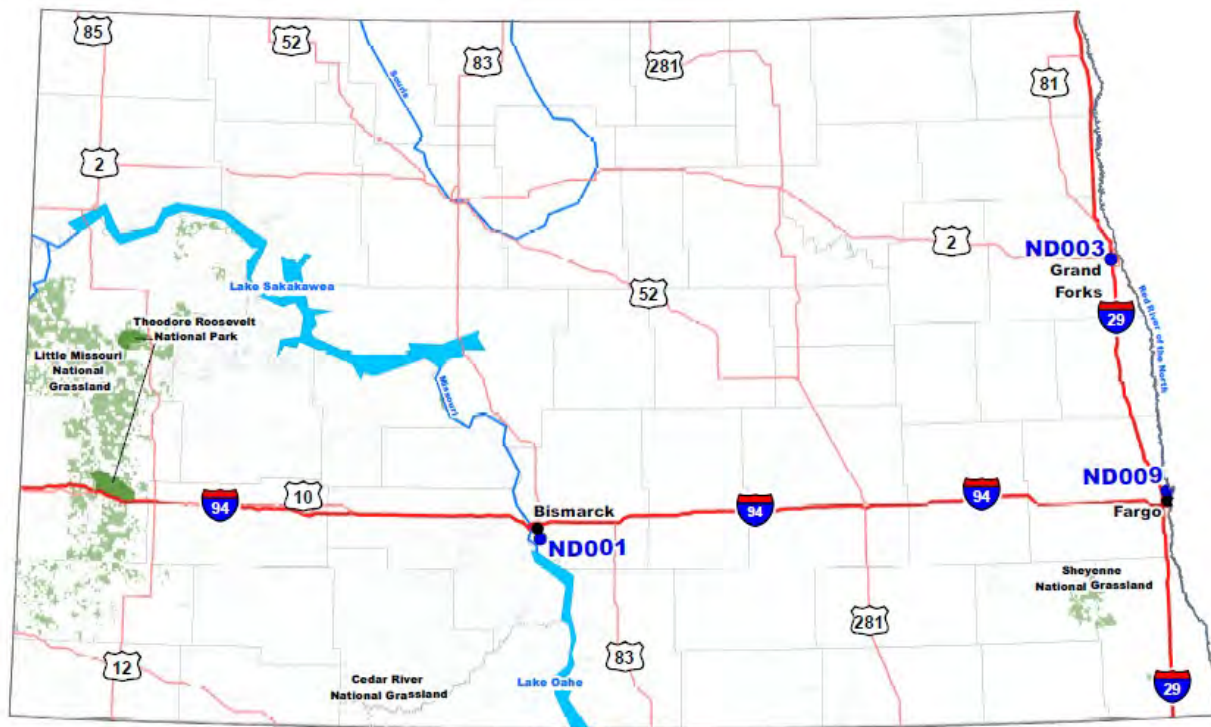
**Management Issues, and Concerns:** None

(Updated CMM 6JUN19)  
(QA/QC STL 23DEC2019)

# Sites in North Dakota

ND001/38525 – Lewis and Clark ARC/AMSA #108

ND003/38650 – Elton W. Ringsak ARC



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## ND001/38525 – Low Resource

### Lewis and Clark ARC/AMSA #108

3319 University Drive  
Bismarck, ND 58504

County: Burleigh

Real Property Report Acres: 10.34

Building Count: 7

% Cover: Maintained Grass (35%)  
Paved Roads/Parking (31%)  
Gravel Roads/Parking (24%)  
Buildings (9%)  
(No change CMM 23JAN19)



Last Field Survey: Desktop only

The Lewis and Clark ARC/AMSA #108 is located in the south central region of North Dakota and consists of an ARC, Organizational Maintenance Shop building, storage, and associated parking areas. Surrounding land use includes development areas of Fort Abraham Lincoln to the north and east, and agricultural land and residential areas to the west and south.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the seven buildings and land that comprise ND001. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Northwest Glaciated Plains

**Wetlands:** None identified on-site. A Palustrine aquatic bed semi permanently flooded (PABF) wetland is located approximately 910 feet south of ND001. (Verified unchanged NWI website data CMM 23JAN19)

**Identified Species:** Not available, no field survey has been conducted at this site.

### Potentially Occurring Listed Species in Burleigh County:

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT, ST)
Interior least tern	( <i>Sternula antillarum athalassos</i> , FE, SE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE, SE)
Piping plover	( <i>Charadrius melodus</i> , FT, ST)
Whooping crane	( <i>Grus Americana</i> , FE, SE)
Red Knot	( <i>Calidris canutus rufa</i> , FT, ST)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and ND G&F CMM 5JUN19)

Given the current land use at ND001, which consists primarily of gravel roads, pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the fauna species listed as potentially occurring within the site. (No habitat verified CMM 5JUN19)

Other Considerations: None

Management Issues, and Concerns: None

(Updated CMM 5JUN19) (QA/QC STL 23DEC19)

## ND003/38650 – Low Resource

### Elton W. Ringsak ARC

520 North 47<sup>th</sup> St.  
Grand Forks, ND 58203

**County:** Grand Forks

**Real Property Report Acres:** 4.30

**Building Count:** 2

**% Cover:** Maintained Grass (59%)  
Paved Road/Parking (31%)  
Buildings (10%)  
(No change CMM 23JAN19)



**Last Field Survey:** Desktop only

The Elton W. Ringsak ARC is located in the northeastern region of North Dakota and consists of an ARC, an Organizational Maintenance Shop building, and associated parking areas. Surrounding land use includes commercial land to the north, residential development to the south, wooded drainage ditch and I-29 to the east, and apartments to the west.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the two buildings and land that comprise ND003. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Lake Agassiz Plain.

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 23JAN19)

**Identified Species:** Not available, as a field survey has not been conducted.

### **Listed Species:**

Northern long-eared bat (*Myotis septentrionalis*, FT, ST)  
Whooping crane (*Grus Americana*, FE, SE)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened,  
C=Species of Concern (USFWS IPAC and ND G&F CMM 5JUN19)

Given the current land use at ND003, which consists primarily of gravel roads, pavement, buildings, and maintained grasses, suitable habitat does not exist for either of the fauna species listed as potentially occurring in on this site. (No habitat verified CMM 5JUN19)

**Other Considerations:** ND003 lies within a 500-year floodplain.

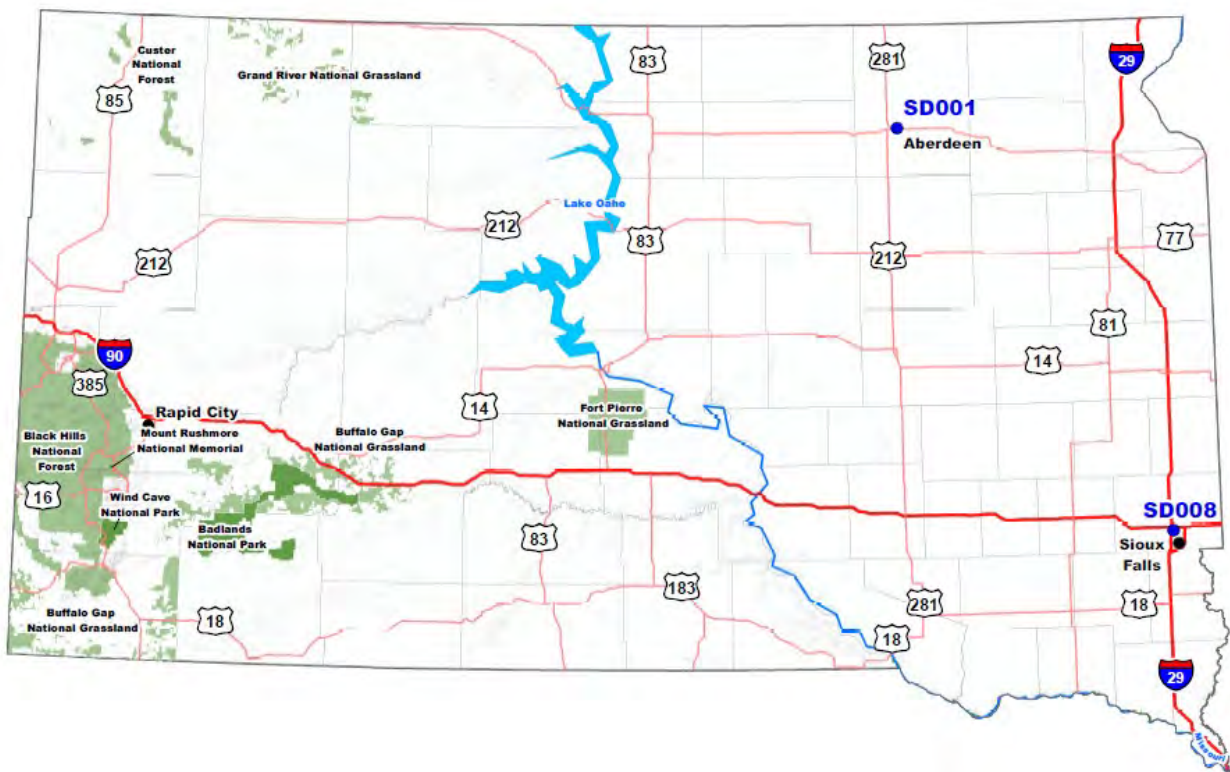
**Management Issues, and Concerns:** None

(Updated CMM 5JUN19)  
(QA/QC STL 23DEC19)

# Sites in South Dakota

SD001/46555– Charles J. Milbrandt AFRC

SD008/46070 – MSG Woodrow Wilson Keeble AFRC



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## SD001/46555 – Low Resource

### Charles J. Milbrandt AFRC

115 South Roosevelt St.  
Aberdeen, SD 57401

County: Brown

Real Property Report Acres: 5.96

Building Count: 4

% Cover: Maintained Grass (45%)  
Paved Roads/Parking (42%)  
Buildings (13%)  
(No change CMM 23JAN19)



Last Field Survey: 2008

The Charles J. Milbrandt AFRC consists of an AFRC, OMS/AMSA, a storage unit, and associated parking areas. Surrounding land use includes residential land on all sides.

### Land Use

The site is used for administrative services, recruiting, classroom training, and light vehicle maintenance. The 88th RD owns the four buildings and the land that comprise SD001. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Northern Glaciated Plains

**Wetlands:** None identified on-site. NWI identifies a PEMG wetland approximately 750 ft northwest of the site. (Verified unchanged NWI website data CMM 23JAN19)

### Identified Species:

**Vegetation:** The maintained **grass/herbaceous layer** area is dominated by Kentucky bluegrass (*Poa pratensis*) and white clover (*Trifolium repens*). Other species include yellow foxtail (*Pennisetum glaucum*), horseweed (*Erigeron canadensis*), Canada thistle (*Cirsium arvense*) (SD noxious weed), white sweet clover (*Melilotus albus*), Lambsquarters (*Chenopodium album*), and common ragweed (*Ambrosia artemisiifolia*).

At the time of the 2008 field survey, the Canada thistle was present in low density and did not present a management issue. However, the South Dakota Department of Agriculture (2019) lists it as a noxious weed.

**Shrub layer:** None present

**Canopy layer:** Landscaping trees and shrubs included white ash (*Fraxinus americana*) and eastern cottonwood (*Populus deltoides*).

**Wildlife:** Wildlife observed during the 2008 field survey included; mourning dove (*Zenaidura macroura*), house sparrow (*Passer domesticus*), downy woodpecker (*Picoides pubescens*), and a dragonfly (*Anisoptera spp.*) species.

### Listed Species:

Northern long-eared bat (*Myotis septentrionalis*, FT)  
Whooping crane (*Grus Americana*, FE, SE)

Red Knot (*Calidris canutus rufa*, FT)

Dakota skipper (*Hesperia dacotae*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and SD GF&P CMM 5JUN19)

Given the current land use at SD001, which consists primarily of pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the fauna species listed as potentially occurring at this site. (No habitat verified CMM 5JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:**

At the time of the 2008 field survey, the Canada thistle was present in low density and did not present a management issue. However, in South Dakota it is listed as a noxious weed and should be managed.

(Updated CMM 5JUN19)

(QA/QC STL 23DEC19)



## SD008/46070 – Low Resource MSG Woodrow Wilson Keeble AFRC

4400 N. Northview Ave.  
Sioux Falls, SD 57107

County: Minnehaha

Real Property Report Acres: 11.00

Building Count: 3

% Cover: Maintained Grass (68%)  
Paved Roads/Parking (21%)  
Buildings (9%)  
Drainage Ditch (2%)  
(No change CMM 23JAN19)



Last Field Survey: 2008

The MSG Woodrow Wilson Keeble AFRC consists of an AFRC and associated parking areas. Surrounding land use includes commercial land to the north and east, commercial and agricultural land to the south, and agricultural land and Interstate 29 to the west.

### Land Use

The site is used for weekend drills, administrative services, classroom training, and light vehicle maintenance. The 88th RD owns the three buildings and the land that comprise SD008. (No change CMM 23JAN19)

### Natural Resources

**EPA Ecoregion:** Western Corn Belt Plains

**Wetlands:** None identified on-site. (Verified unchanged NWI website data CMM 23JAN19)

#### **Identified Species:**

**Vegetation:** The *maintained grass/herbaceous layer* is dominated by Kentucky bluegrass (*Poa pratensis*).

Other non-dominant species observed were: Common ragweed (*Ambrosia artemisiifolia*), Barnyard grass (*Echinochloa spp.*), Lambsquarters (*Chenopodium album*), Yellow foxtail (*Pennisetum glaucum*), Velvetleaf (*Abutilon theophrasti*), Yellow nut sedge (*Cyperus esculentus*), Red clover (*Trifolium pratense*), and Buffalo bur (*Solanum rostratum*).

**Canopy Layer:** Landscaping trees and shrubs included:

Colorado spruce	( <i>Picea pungens</i> ),
White spruce	( <i>Picea glauca</i> ),
Red maple	( <i>Acer rubrum</i> ),
Red oak	( <i>Quercus rubra</i> ),
Crabapple	( <i>Malus spp.</i> ),
Creeping juniper	( <i>Juniperus horizontalis</i> ), and
Common juniper	( <i>Juniperus communis</i> ).
Japanese spiraea	( <i>Spiraea japonica</i> ) (exotic-invasive, but
planted in landscaping and <b>not noxious</b> ),	

**Wildlife:** Wildlife observed during the 2008 site survey included:

Killdeer	( <i>Charadrius vociferous</i> )
Barn swallow	( <i>Hirundo rustica</i> )
Rock pigeon	( <i>Columba livia</i> )
House sparrow	( <i>Passer domesticus</i> )
Mourning dove	( <i>Zenaida macroura</i> )
Chipping sparrow	( <i>Spizella passerine</i> )
American goldfinch	( <i>Spinus tristis</i> )
House finch	( <i>Haemorhous mexicanus</i> )

Eastern cottontail (*Lagomorpha Oryctolagus*).

**Listed Species:**

Northern long-eared bat	( <i>Myotis septentrionalis</i> , FT)
Red Knot	( <i>Calidris canutus rufa</i> , FT)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and SD GF&P CMM 5JUN19)

Given the current land use at SD008, which consists primarily of pavement, buildings, and maintained grasses, suitable habitat does not exist for any of the species listed as potentially occurring within the site. (No habitat verified CMM 5JUN19)

**Other Considerations:** None

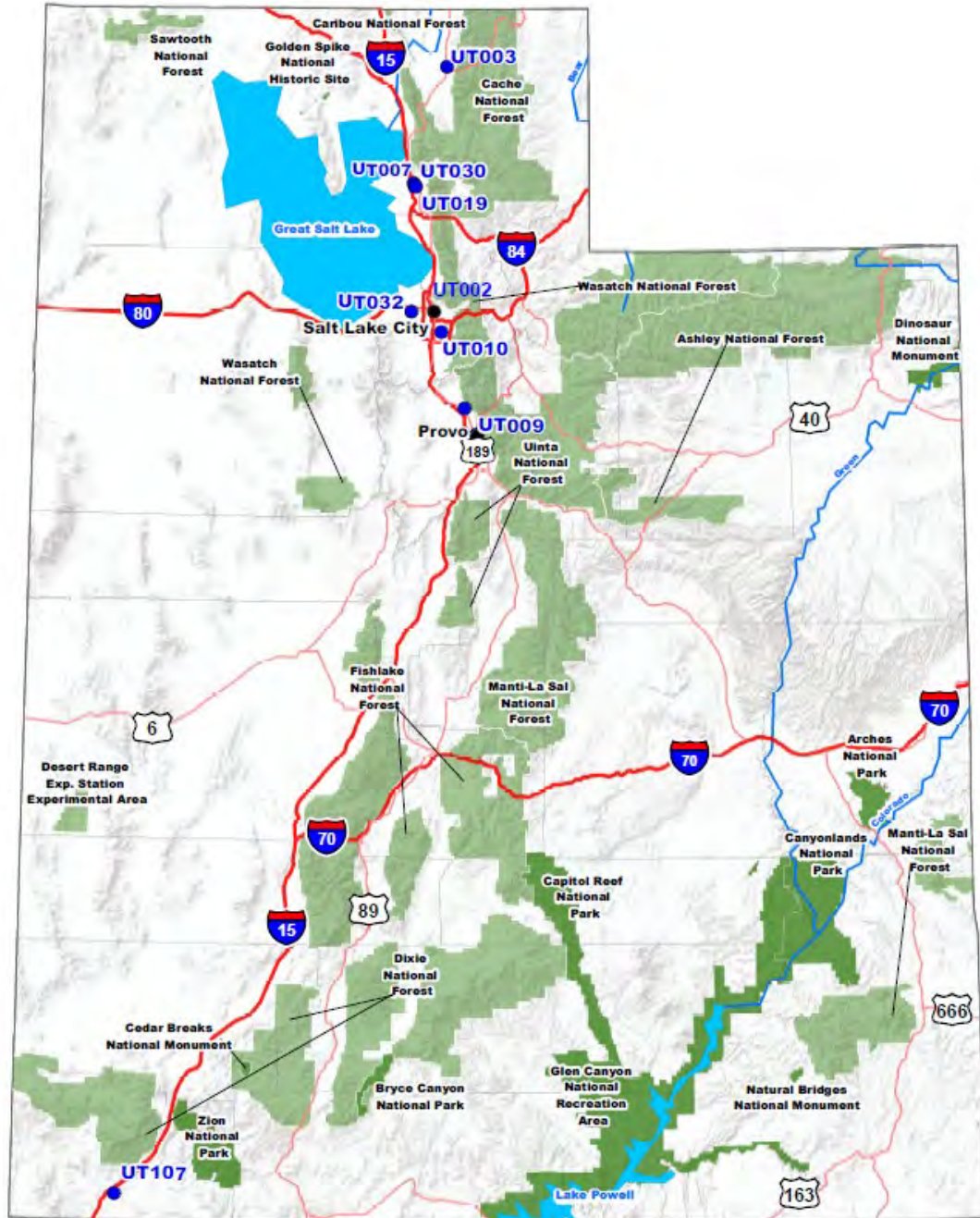
**Management Issues, and Concerns:** None

(Updated CMM 5JUN19)  
(QA/QC STL 23DEC19)



## Sites in Utah

- UT009 – Dale Rex Hall ARC
- UT010 – Moore Hall ARC
- UT032 – Kenichi Uchida ARC
- UT107 – St. George ARC



*Intentionally blank.*

## Ray D. Jenkins ARC (UT003/49655) – Low Resource\*

224 E 1800  
Logan UT 84341-1747

**County:** Cashe  
**Area:** 6.00  
**Building Count:** 2  
**% Cover:** Buildings 5.7%,  
Paved Roads/Parking 56.34%,  
Wetlands 0.99%,  
Xeric Landscaping 2.31%,  
Maintained Grass 34.59%  
(NRSU, 2018)



**Last Field Survey:** 2018

The Ray D. Jenkins ARC (FACID UT003, Site Code 49655) consists of an ARC building, OMS building, and associated parking areas. The site provides classroom training, administrative services, and light vehicle maintenance. The 88th RD leases the land, but owns the two buildings that comprise UT003.

\* In the 2015-2020 INRMP this site was listed as a high resource site, however upon receipt of the 2018 natural resource survey update this site has been re-evaluated to be a low resource site.

### Geographic Location and Size

UT003 is located in Logan, population 48,174, within Cache County. Acreage for the site was calculated at 6.18 acres in GIS; the Real Property Detail Report shows acreage as 6.00 acres. Surrounding land use consists of agricultural fields to the north and east, commercial and residential land to the south, and residential land to the west. The site boundary is shown on Figure 3.9.

### Geological Resources

#### Physiography and Geology

This site is located within the Basin and Range physiographic province (Fenneman and Johnson 1946a). A mosaic of dry basins, scattered mountains, and salt flats (Fenneman and Johnson 1946b) characterizes this province. It is noted for numerous north/south oriented, fault-tilted mountain ranges separated by intervening, broad, sediment filled basins. (Cited references are found in the 2018 natural resource survey: P:\DPW\Environmental Archive\Environmental Programs\Land Resources - ARCHIVE\NR Surveys\FY18 NR Surveys\Final Reports\UT003 Jenkins ARC.)

#### Soils

The United States Department of Agriculture Natural Resources Conservation Services (USDA-NRCS) online web soil survey describes the site as composed of 48 percent Millville silt loam, 0 to 2 percent slopes, and 52 percent Nibley silty clay loam, 0 to 3 percent slopes.

#### Topography

UT003 is generally flat with an elevation of approximately 4,525 to 5,535 feet amsl.

## Water Resources

### Watershed and Surface Waters

This site lies within the Little Bear-Logan watershed in the northern portion of the state.

The Logan and Hyde Park Canal is located approximately 750 feet southeast of the site. The canal is used for irrigation by local residences. The 2015 – 2020 USFWS Interior Region 5/7 INRMP reported that in July 2013 an oil spill contaminated the canal, but it was quickly cleared by the Bear River Health Department.

### Floodplains

Floodplain mapping for this site is based on digital Q3 Flood data produced by FEMA. Based on the FEMA mapping area that covers this site (FEMA Map 49005C0250C) the site is in an area of minimal flood hazard (Zone X).

### Wetlands

A single emergent wetland (approximately 0.06 ac) was observed on the site during the 2018 site visit (previously identified in the 2008 survey). This constructed wetland is located within a storm water retention basin, and appears to function as an on-site moisture management tool due to the topography in and around the site. The wetland appears to have developed in response to the ending of a culvert, and the wetland narrows as distance from this culvert increases. The wetland was dominated by reed canary grass (*Phalaris arundinacea*). This wetland is surrounded by mowed grass and appears to be intermittently inundated.

UT003 is located in a topographically flat area and surrounded by a mix of agricultural fields and residential land use. According to NWI data, there is a single, semi-permanently flooded palustrine emergent wetland (PEMF) approximately 620 feet northwest of the site, and a stream that is classified as intermittent, seasonally flooded, and excavated (R4SBCx) approximately 780 feet southeast of the site. NWI data did not document any additional wetlands on or within 1,000 feet of the site.

## Biological Resources

### Vegetation Communities

No listed and candidate, federal, state, or Army species-at-risk plants were observed during the 2018 field survey.

The site is dominated by with some planted shrubs and trees along the perimeter. During the field surveys, the following communities were of note.

The ***maintained lawn/herbaceous layer*** area is dominated by Kentucky bluegrass (*Poa pratensis*).

The grassy field at the eastern end of the site contains Kentucky bluegrass in addition to common field plants such as:

black medick	( <i>Medicago lupulina</i> )
field bindweed	( <i>Convolvulus arvensis</i> )
yellow salsify	( <i>Tragopogon dubius</i> )

***Canopy layer:*** Planted trees and shrubs include

Juniper	( <i>Juniperus virginiana</i> )
cotoneaster	( <i>Cotoneaster spp.</i> )
yellow-twig dogwood	( <i>Cornus stolonifera</i> 'Flaviramea')

Norway maple (*Acer platanoides*)

A population of scotch thistle (*Onopordum acanthium*) that had been sprayed with herbicide and had died was observed in the northeast corner of the site.

### **Wildlife**

UT003 provides little habitat suitable to support wildlife diversity. Due to the amount of development within the site, only common wildlife species adapted to developed and populated areas are likely to utilize the property.

Bird Surveys were conducted on the site using a five-minute interval point bird count in the early afternoon of September 25, 2018. Count stations were positioned on the site where food, water, and habitat sources were present. These areas included the wetland, the planted trees in the parking lot, and along the eastern side of the property that abutted an agricultural field. The surveys yielded a singular observed mourning dove (*Zenaidura macroura*).

No other wildlife was observed onsite.

### **Listed Species**

The state-listed Swainson's hawk (*Buteo swainsoni*, S3) and Rydberg's musineon (*Musineon lineare*, S2) have been documented within 1,000 feet of the site by the Utah Natural Heritage Program (2013 data). No Rydberg's musineon was observed on-site, or within 1,000 feet of the site during the 2013 field survey. A pair of nesting Swainson's hawks was observed during the 2013 survey in an alfalfa field adjacent to the site. The nest site is approximately 300 feet north of the site, and across E 1800 N. The nesting territory is surrounded on three sides by industrial/residential areas, with additional agricultural areas to the north. Swainson's hawks are highly adaptable to industrial/residential areas, and commonly nest within these areas. Activities at the site are not likely to cause disturbance to the nesting pair of hawks. Due to the lack of adequate nest sites, Swainson's hawk is not likely to nest on the site.

The following federally listed species have been identified as potentially present in Cache County:

Canada lynx (*Lynx canadensis* T),  
yellow-billed cuckoo (*Coccyzus americanus* C),  
least chub (*Lotichthys phlegethontis* C),  
Maguire primrose (*Primula maguirei* T), and  
Ute ladies'-tresses (*Spiranthes diluvialis* T)

### **Special Interest Areas**

No special interest areas are located on or within 1,000 feet of UT003.

**Other Considerations:** None

**Management Issues, and Concerns:** None

*Intentionally blank.*



## UT009/49695 – Low Resource Dale Rex Hall ARC

1355 North 200 West,  
Provo, UT 84604

County: Utah

Real Property Report Acres: 4.63

Building Count 3

% Cover: Paved Road/Parking (57%)

Maintained Grass (34%)

Buildings (9%)

Bare Ground (4%)

(No change CMM 24JAN19)



Last Field Survey: desktop survey only

The Dale Rex Hall USAR consists of an ARC, OMS, and associated parking areas. Surrounding land use includes light industrial land to the east, north, and south, and residential land to the west.

### Land Use

The site is used for administrative services, classroom training, storage, and light vehicle maintenance. The 88th RD owns the three buildings and the land that comprise UT009. (No change CMM 24JAN19)

### Natural Resources

**EPA Ecoregion:** Central Basin and Range

**Wetlands:** None identified on-site. According to NWI data, there is a palustrine forested temporarily flooded (PFOA) wetland located approximately 90 ft. southeast of the site, a palustrine emergent semi permanently flooded (PEMF) wetland located approximately 660 ft. northeast of the site, and another PFOA wetland located approximately 770 ft. northeast of the site. (Verified unchanged NWI website data CMM 24JAN19)

**Identified Species:** Not available, no field survey has been conducted at this site.

### Listed Species:

Canada lynx	( <i>Lynx Canadensis</i> , FT)
June sucker	( <i>Chasmistes liorus</i> , FE)
Ute ladies'-tresses	( <i>Spiranthes diluvialis</i> , FT)
Jones cycladenia	( <i>Cycladenia humilis</i> var. <i>jonesii</i> , FT)
Yellow-billed cuckoo	( <i>Coccyzus americanus</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and UT DNR CMM 7JUN19)

Given the current land use at UT009, which consists primarily of bare ground, maintained grasses, pavement, and buildings, suitable habitat does not exist for any of the flora and fauna species listed as potentially occurring within the site. (No habitat verified CMM 7JUN19)

Other Considerations: None

Management Issues, and Concerns: None

(Updated CMM 7JUN19) (QA/QC STL 23DEC19)

*Intentionally blank.*



## UT010/49745 – Low Resource

### Moore Hall ARC

4550 South 1300 East  
Salt Lake City, UT 84117

County: Salt Lake

Real Property Report Acres: 4.28

Building Count: 2

% Cover: Paved Road/Parking (83%)  
Buildings (11%)  
Maintained Grass (6%)  
(No change CMM 24JAN19)



Last Field Survey: Desktop only

The Moore Hall ARC is located in Salt Lake City, UT and consists of an ARC, additional building, and associated parking areas. Surrounding land use includes residential to the east, south, and north. Residential and public (church) is the land use to the west.

### Land Use

The site is used for classroom training, administrative services, light vehicle maintenance, and storage. The 88th RD owns the two buildings and the land that comprise UT010. (No change CMM 24JAN19)

### Natural Resources

**EPA Ecoregion:** Central Basin and Range

**Wetlands:** None identified on-site. According to NWI data, there is a Palustrine aquatic bed intermittently exposed excavated (PABGx) wetland located approximately 540 ft. east of the site, a Palustrine emergent seasonally flooded (PEMC) wetland located approximately 910 ft. east of the site, and another PABGx wetland located approximately 940 ft. southwest of the site. (Verified unchanged NWI website data CMM 24JAN19)

**Identified Species:** Not available, no field survey has been conducted at this site.

### Listed Species:

Canada lynx (*Lynx Canadensis*, FT)  
June sucker (*Chasmistes liorus*, FE)  
Ute ladies'-tresses (*Spiranthes diluvialis*, FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and UT DNR CMM 7JUN19)

Given the current land use at UT010, which consists primarily of maintained grasses, pavement, and buildings, suitable habitat does not exist for any of the flora and fauna species listed as potentially occurring within the site. (No habitat verified CMM 7JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 7JUN19)  
(QA/QC STL 23DEC19)

**UT019/49844 – Low Resource**

**Ogden Storage Site 11-C**

968 W 400, Ogden, UT 84404

**County:** Weber

No Natural Resources on Site.

**UT030/49856 – Low Resource**

**Ogden Maintenance Center 269 ARC #1**

649 W 400, Ogden, UT 84404

**County:** Weber

No Natural Resources on Site.

## UT032/49850 – Low Resource

### Kenichi Uchida ARC

5290 West 700 South  
Salt Lake City, UT 84104

County: Salt Lake

Real Property Report Acres: 10.00

Building count: 5

% Cover: Paved Road/Parking (42%)  
Maintained Grass (32%)  
Buildings (13%)  
Gravel Road/Parking (9%)  
Grassland/Field (4%)  
(No change CMM 24JAN19)

Last Field Survey: 2008



The Kenichi Uchida AFRC consists of an ARC, OMS, a storage site, one other unclassified building, and associated parking areas. Surrounding land use consists of undeveloped and light industrial lands to the north, agricultural and grasslands to the west, grassland and light industrial land to the east, and light industrial land to the south.

### Land Use

The site is used for classroom training, administrative services, light vehicle maintenance, and storage. The 88th RD owns the land and the five buildings that comprise UT032. (No change CMM 24JAN19)

### Natural Resources

**EPA Ecoregion:** Central Basin and Range

**Wetlands:** None identified on-site. According to NWI data, there is a palustrine scrub-shrub/emergent, seasonally flooded/saturated, irregularly exposed, temporarily flooded wetland (PSS/EMA) approximately 550 feet northeast of the northern boundary, and a palustrine emergent seasonally-flooded wetland (PEMC) approximately 650 feet south of the southern boundary of UT032. (Verified unchanged NWI website data CMM 24JAN19)

### Identified Species:

**Vegetation:** Vegetation communities at UT032 consist of maintained grass, landscaping, and a small wet area in the north-central portion of the site (associated with a blocked culvert and over-irrigation).

The landscaped and **Shrub/Canopy layer** areas are dominated by:

green ash	( <i>Fraxinus pennsylvanica</i> )
honey locust	( <i>Gleditsia triacanthos</i> )
daylily	( <i>Hemerocallis spp.</i> )
juniper	( <i>Juniperus spp.</i> )
Austrian pine	( <i>Pinus nigra</i> )
Kentucky bluegrass	( <i>Poa pratensis</i> )
turf grass	( <i>Paspalum distichum</i> )
spiraea	( <i>Spiraea spp.</i> )
Korean lilac	( <i>Syringa meyeri</i> ).

The unmaintained grassland field contained the same species composition.

The vegetation community associated with the drainage ditch immediately outside of the western boundary was dominated by broadleaf cattail (*Typha latifolia*).

**Wildlife:** Wildlife observed during the 2008 field survey were

mourning dove	( <i>Zenaida macroura</i> )
rock dove	( <i>Columba livia</i> )
house sparrow	( <i>Passer domesticus</i> )
European starling	( <i>Sturnus vulgaris</i> )
killdeer	( <i>Charadrius vociferus</i> )
black-billed magpie	( <i>Pica hudsonia</i> ).

Additionally, several unidentified gulls were seen flying overhead.

**Listed Species:**

Canada lynx	( <i>Lynx Canadensis</i> , FT)
June sucker	( <i>Chasmistes liorus</i> , FE)
Ute lady's-tresses	( <i>Spiranthes diluvialis</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and UT DNR CMM 7JUN19)

Given the current land use at UT032, which consists primarily of maintained grasses, pavement, and buildings, suitable habitat does not exist for any of the flora and fauna species listed as potentially occurring within the site. (No habitat verified CMM 7JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

(Updated CMM 7JUN19)  
(QA/QC STL23DEC19)

**UT035 is COMBINED w/ UT007**

**LTA – Ogden – Medium Resource**

1380 1200 West, Ogden, UT 84404

UT007 is found in section 3.12

*Intentionally blank.*

## UT107/4991S – Low Resource

### St. George ARC - Leased Site

3323 E. Deseret Drive  
St. George, UT 84790

County: Washington

Real Property Report Acres: 2.67

Building Count: 1

% Cover: Gravel Road/Parking (48%)  
Paved Road/Parking (39%)  
Buildings (10%)  
Retention Pond (3%)  
(No change CMM 24JAN19)



Last Field Survey: Desktop survey only

The St. George ARC consists of an ARC building and associated parking areas. Surrounding land use consists of commercial uses.

### Land Use

The site is used for classroom training and administrative services. The 88th RD leases the building and land that comprise UT107. (No change CMM 24JAN19)

### Natural Resources

**EPA Ecoregion:** Mojave Basin and Range

**Wetlands:** None identified on-site (Verified unchanged NWI website data CMM 24JAN19)

**Identified Species:** Not available, as a field survey has not been conducted.

### Listed Species:

California condor	( <i>Gymnogyps californianus</i> , FE)
Desert tortoise	( <i>Gopherus agassizii</i> , FT)
Dwarf bear-poppy	( <i>Arctomecon humilis</i> , FE)
Holmgren milk-vetch	( <i>Astragalus holmgreniorum</i> , FE)
Jones cycladenia	( <i>Cycladenia humilis</i> var. <i>jonesii</i> , FT)
Mexican spotted owl	( <i>Strix occidentalis lucida</i> , FT)
Shivwitz milk-vetch	( <i>Astragalus ampullarioides</i> , FE)
Southwestern willow flycatcher	( <i>Empidonax traillii extimus</i> , FE)
Virgin River chub	( <i>Gila seminuda</i> , FE)
Woundfin	( <i>Plagopterus argentissimus</i> , FE)
Yellow-billed cuckoo	( <i>Coccyzus americanus</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and UT DNR CMM 7JUN19)

Given the current land use at UT107, which consists primarily of gravel roads, pavement, and buildings, suitable habitat does not exist for any of the flora or fauna species listed as potentially occurring within the site. (No habitat verified CMM 7JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:** None

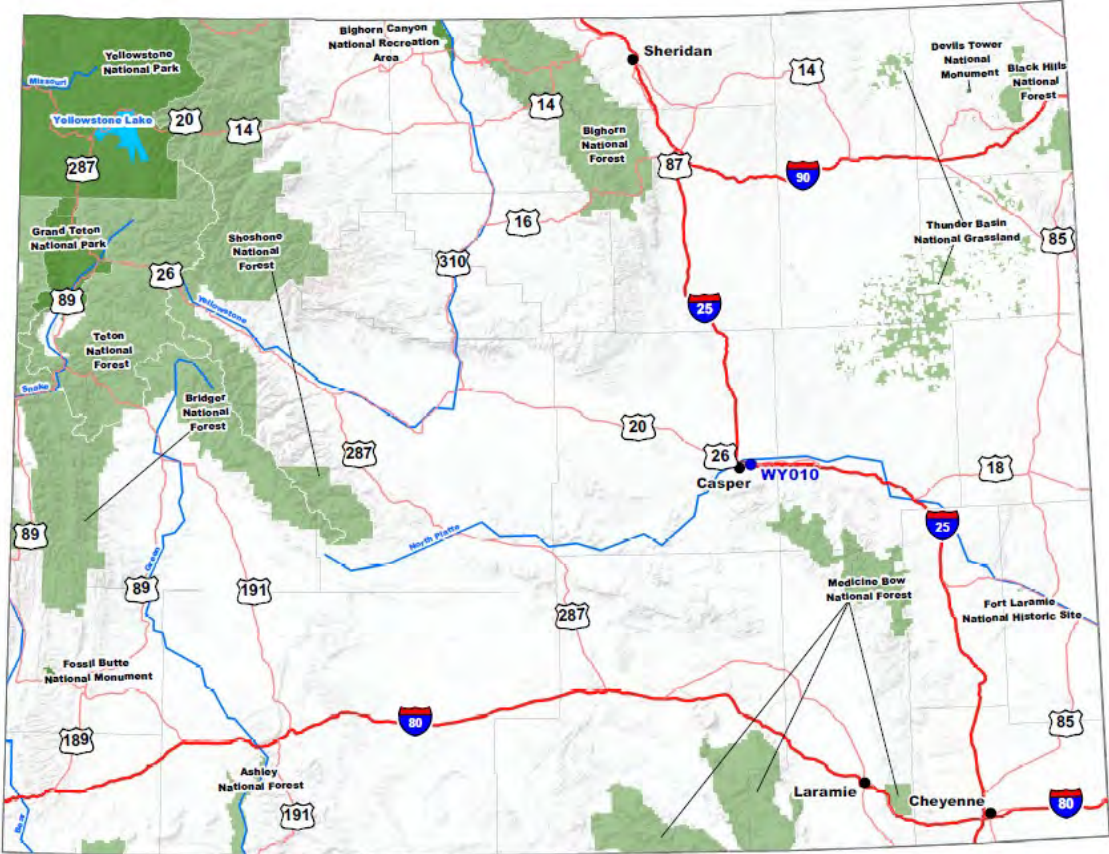
(Updated CMM 7JUN19) (QA/QC STL 23DEC19)

*Intentionally blank.*



# Sites in Wyoming

WY010 – Antelope Flats ARC



*Intentionally blank.*

## WY010/5660A – Low Resource

### Antelope Flats ARC - Leased Site

5141 Reserve Drive  
Evansville, WY 82636

County: Natrona

Real Property Report Acres: 8.27

Building Count: 1

% Cover: Gravel Road/Parking (40%)  
Disturbed Ground (37%)  
Paved Road/Parking (12%)  
Buildings (11%)  
(No change CMM 24JAN19)



Last Field Survey: 2008

The Antelope Flats ARC consists of an ARC, an OMS, and associated parking areas. Surrounding land use includes commercial land to the north, east, and west. To the south is Interstate 25.

### Land Use

The site is used for administrative services, classroom training, and light vehicle maintenance. The 88th RD leases the buildings and the land that comprise WY010. (No change CMM 24JAN19)

### Natural Resources

**EPA Ecoregion:** Northwestern Great Plains

**Wetlands:** None identified on-site. According to NWI data indicates a Palustrine Emergent seasonally flooded diked/impounded (PEMCh) wetland located northwest of the site. During the site visit, it was apparent that this wetland has been filled and a building now exists in its place. There is a wet area directly west of the site; fill material is actively being placed around its edges. The area contains hydrophytic vegetation (narrow leaved cattail (*Typha angustifolia*)) and may meet wetland criteria. Therefore, the area should be considered a wetland and may warrant a jurisdictional determination. (Verified unchanged NWI website data CMM 24JAN19)

### **Identified Species:**

**Vegetation:** Grounds at the site are sparsely vegetated and appear disturbed with much of the area consisting of bare soil. The disturbed ground area is dominated by curly dock (*Rumex crispus*), field bindweed (*Convolvulus arvensis*) (WY State Designated Noxious Weeds, 2019), and cheat grass (*Bromus tectorum*).

**At the time of the 2008 field survey, field bindweed was present in low density and did not present a management issue. However, it is listed as a noxious weed in Wyoming.**

**Wildlife:** Wildlife species observed during the 2008 survey were house sparrow (*Passer domesticus*) and a dragonfly (*Anisoptera spp.*) species.

A mule deer (*Odocoileus hemionus*) was observed off-site in the wet area located to the west.

Common species of wildlife may occasionally be seen on the site due to their utilization of adjacent habitats (wet area).

**Listed Species:**

Federally listed species:

Piping plover	( <i>Charadrius melodus</i> , FT)
Whooping crane	( <i>Grus Americana</i> , FE)
Pallid sturgeon	( <i>Scaphirhynchus albus</i> , FE)
Ute ladies'-tresses	( <i>Spiranthes diluvialis</i> , FT)
Western prairie fringed orchid	( <i>Platanthera praeclara</i> , FT)

F=Federal listed species, S=State listed species, A=Army species at risk species, E=Endangered, T=Threatened, C=Species of Concern (USFWS IPAC and WY G&F CMM 7JUN19)

Given the current land use at WY010, which consists primarily of gravel roads, disturbed ground, pavement, and buildings, suitable habitat does not exist for any of the flora and fauna species listed as potentially occurring on this site. Regarding the Pallid sturgeon, no depletions within the Platte River basin are anticipated with the update of the INRMP for Antelope Flats ARC. (No habitat verified CMM 7JUN19)

**Other Considerations:** None

**Management Issues, and Concerns:**

At the time of the 2008 field survey, the noxious field bindweed was present in relatively low densities and did not warrant management concern. However, Wyoming lists it as a noxious weed.

**If the density of the field bindweed increases, and if nothing has been done between 2008 and 2021, efforts should be taken to minimize/eliminate and reseed with native species at the site to minimize erosion potential.**

(Updated CMM 7JUN19)  
(QA/QC STL 23DEC19)

## **Appendix C: Project Lists**

*Intentionally blank.*

## FY21 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Annual review and update of INRMP	\$11,880.00	per update	IN- HOUSE	Planned
KS031/20790	AG/LEASEIMPL	Agricultural lease – Sunflower - The lease at the Sunflower LTA (KS031) generates just enough revenue to cover the costs for the COE personnel to oversee the lease contract. The Sunflower Lease ends in August of 2023	\$1.00	per lease implementa tion	VENQ 21A / VENQ	Planned
NE010/31895	AG/LEASEIMPL	Agricultural lease – Mead - The lease for the Mead AG lease originally to expire in 2020 has been extended. New expiration date is Feb. 2022. The plan is to renew lease for 5 more years beginning Feb 2022 ending Feb 2027.	\$75,000.00	per lease implementa tion	VENQ 21A / VENQ	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community.	\$7,000.00	N/A	VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESCMPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$80,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	An Endangered Species Management Component Plan Implementation/Update may be required if a threatened and endangered species is found on an 88th RD site.	\$0.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVYUP	Funding is required to update previous determination as to whether the federally threatened or endangered species are present on sites within the 88th RD. The 88th RD has projected site specific requirements. Previous endangered surveys have determined that there is potential habitat for the threatened or endangered species on select sites.	\$26,000.00	\$13,000.00 per species survey	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	FORESTPLN	Forest Management Plans (per INRMP requirements) for lands in the 88th RD's AOR will be developed for locations on an as needed basis.	\$0.00		IN- HOUSE	No requirement
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR,	\$5,000.00	per update	IN- HOUSE	Planned

**FY21 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$174,000.00		QMUN /VENQ	Planned
USFWS Interior Region 5/7 (TBD)	INV SPLN	The Invasive Species Management Plans compile invasive species data including those regulated by the USDA for potential to impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources.	\$0.00	per plan	VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	
KS031/20790 NE010/31895	INV SPLNUP	The Invasive Species Management Plans compile data to address species that may pose a health and safety risk, and those identified by the USDA as noxious that may impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources.	\$15,000.00	7,500.00 per site	IN-HOUSE	Planned
KS031/20790	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$4,996.00	per update	VENQ	Planned
NE010/31895	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$16,234.40	per update	VENQ	Planned
USFWS Interior Region 5/7 TBD	LTADEVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability of 88th RD lands to support military training.	\$0.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVY	The PLS/INRMP policy memorandum requires execution of initial PLS (NRSRVY) to incl flora, fauna, soil, topography, veg communities, & surface water. NRSRVY reports spatial data used for mission planning, envl compliance assessments for site dvlmnt & construction proj, natural resources mgmt.,	\$20,761.00	per location	VENQ	Contingent upon need



**FY21 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
		endangered species mgmt., & a variety of other planning purposes.				
USFWS Interior Region 5/7 TBD	NRSRVYUP	Execution of NRSRVYUP of flora, fauna, soil, topography, vegetative communities, and surface water. Installations require updates to basic information for natural resources management and long-term mission support, including documentation of the various ecological characteristics that exist on the installation.	\$0.00	per update	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil and water resources management on 88thRD training land maneuver areas to include preventing or controlling sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or other erosion resulting from the lack of maintenance to real property.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$17,280.00	\$8,640.00 per species	VENQ	Contingent upon need
USFWS Interior Region 5/7 LTA TBD	TRNGCNS	Funding is required to train field staff and tenant units on natural resources program requirements and environmental stewardship. This includes development of training materials, and conducting the training sessions via multiple methods. The number of personnel trained will be specific to units exercising / stationed at the LTA/site; approximately 1 training event will be conducted per year.	\$2,500.00	\$2,500.00	VENQ	Contingent upon need

**FY21 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 LTA TBD	WLDIFIREPLNIMPL	Project is for reimbursable 21F Forestry Army Reimbursable Account (ARA) to support forest improvements; reforestation; disease and insect protection; fire prevention; forest access roads and trails; sales; maintenance and operation for forest management equipment; administration and management of forestry activities; surveys for cultural/archeological sites impacting on forest management; land maintenance and repair (soil erosion and sediment control); mission utility of land (tactical corridors, available usage, realism); and assessment of ecological risks (biodiversity, communities). This activity is limited to the LTAs.			VENQ	No activity planned
KS031-20790 NE010-31895	WLDIFIREPLNUP	Integrated Wildland Fire Management Plans (IWFMP) identifies fire management needs and actions on the ground including prescribed burning and wildfire suppression. These plans must be reviewed on an annual basis to ensure that mission priorities and the best available scientific data and methods have been incorporated.	\$15,000.00	\$7,500.00 per site	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 LTA TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis.		per site	VENQ	No requirement
88th RD	CNSPGMMGT	Annual salaries and benefits	\$398,000.00	N/A	VENQ	Planned
88thRD	TRNGSNSSTAFF	Professional development and training	\$17,850.00	N/A	VENQ	Planned

## FY22 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Annual review and update of INRMP	\$11,880.00	per update	IN-HOUSE	Planned
KS031/20790	AG/LEASEIMPL	Agricultural lease – Sunflower - The lease at the Sunflower LTA (KS031) generates just enough revenue to cover the costs for the COE personnel to oversee the lease contract. The Sunflower Lease ends in August of 2023.	\$1.00	per lease implementation	VENQ 21A / VENQ	Planned
NE010/31895	AG/LEASEIMPL	Agricultural lease – Mead - The lease for the Mead AG lease originally to expire in 2020 has been extended. New expiration date is Feb. 2021. The plan is to renew lease for 5 more years beginning Feb 2022 ending Feb 2027.	\$100,000.00	per lease implementation	VENQ 21A / VENQ	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community.	\$7,000.00	inclusive	VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESCMPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$80,000.00	Per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision has been carried forward from FY15 to FY22, and will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	Per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	Implementation of existing Endangered Species Management Component (ESMC) is required and will capture newly listed species, best available scientific data, and management strategies.	\$40,000.00	Per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVY	To determine whether a federally threatened or endangered species is present on sites within the 88th RD.	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need

**FY22 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 (TBD)	ESSRVYUP	Funding is required to update previous determination as to whether the federally threatened or endangered species are present on sites within the 88th RD. The 88th RD has projected site specific requirements. Previous endangered surveys have determined that that there is potential habitat for the threatened or endangered species on select sites.	\$26,000.00	\$13,000.00 per species survey	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	FORESTPLN	Forest Management Plans (per INRMP requirements) for lands in the 88th RD's AOR will be developed for locations on an as needed basis.	\$29,000.00	Per location	IN-HOUSE	Contingent upon need
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR,	\$25,000.00	per update	IN-HOUSE	Planned
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$18,333.33	\$611.11 / acre x 30 acres	QMUN/ VENQ	Planned
KS031/20790 NE010/31895	INV SPLN	The Invasive Species Management Plans compile data to address species that may pose a health and safety risk, and those identified by the USDA as noxious that may impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources. Annual updates.	\$15,000.00	7,500.99 per site	IN-HOUSE	Planned
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	Contingent upon need
KS031/20790	INV SPLNUP	Update Invasive management plans	\$35,000.00	per update	VENQ/QD PW	Planned
USFWS Interior Region 5/7 TBD	LTADVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability and will provide long term sustainability of 88th RD lands to support military training.	\$0.00	Per location	VENQ	Contingent upon need

**FY22 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 TBD	NRSRVY	The PLS/INRMP policy memorandum requires execution of initial planning level surveys (NRSRVY) including flora, fauna, soil, topography, vegetative communities, and surface water. NRSRVY reports spatial data used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$20,761.00	Per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVYUP	Execution of NRSRVYUP of flora, fauna, soil, topography, vegetative communities, and surface water. Installations require updates to basic information for natural resources management and long-term mission support, including documentation of the various ecological characteristics that exist on the installation.	\$0.00	per update	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil and water resources management on 88th RD training land maneuver areas to include preventing or controlling sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or other erosion resulting from the lack of maintenance to real property.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need
Various USFWS Interior Region 5/7 locations	TRNGCNS	Funding is required to train field staff and tenant units on natural resources program requirements and environmental stewardship. This includes development of training materials, and conducting the training sessions via multiple methods. The number of personnel trained will be specific to units exercising / stationed at the LTA/site; approximately 1 training event will be conducted per year.	\$47,450.00	N/A	VENQ	Planned

**FY22 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 LTA TBD	WLDFIREPLNIMPL	Integrated Wildland Fire Management Plans (IWFMP) identifies fire management needs and actions on the ground including prescribed burning and wildfire suppression. These plans must be reviewed on an annual basis to ensure that mission priorities and the best available scientific data and methods have been incorporated. This activity is limited to the LTAs.	\$0.00		VENQ	No activity planned
KS031-20790 NE010-31895	WLDFIREPLNUP	Annual update to the Integrated Wildland Fire Management Plans (IWFMP) to identify fire management needs. This activity is limited to the LTAs.	\$15,000.00	\$7,500.00 / site	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	WTLNDSRVY	Initial wetland delineation takes place after the initial NRSRVY indicated that the wetlands at a particular 88th RD site requires a detailed evaluation of the wetlands present to determine if they are potentially jurisdictional.	\$25,000.00	per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. High resource sites.	\$0.00	per site	VENQ	No requirement
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. Medium resource sites.	\$0.00	per site	VENQ	No requirement
88th RD	CNSPGMMGT	Annual salaries and benefits.	\$518,500.00	N/A	VENQ	Planned
88th RD	TRNGSNSSTAFF	Professional development and training.	\$17,085.00	N/A	VENQ	Planned

## FY23 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Annual review and update of INRMP	\$0.00	per update	IN- HOUSE	Planned
KS031/20790	AG/LEASEIMPL	Agricultural leases	\$1,000.00	\$1,000.00 per COE admin costs per site	RPTS / VENQ	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community.	\$7,000.00	Inclusive	VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESCMPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$0.00	per plan	VENQ	No Requirement
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision has been carried forward from FY15 to FY22, and will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	Implementation of existing Endangered Species Management Component (ESMC) is required and will capture newly listed species, best available scientific data, and management strategies	\$0.00	per plan	VENQ	No requirement

**FY23 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 (TBD)	ESSRVY	To determine whether a federally threatened or endangered species is present on sites within the 88th RD	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR.	\$25,000.00	per update	IN- HOUSE	Planned
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$0.00		QMUN/ VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	Contingent upon need
KS031/20790 NE010/31895	INVSPLNUP	The Invasive Species Management Plans compile data to address species that may pose a health and safety risk, and those identified by the USDA as noxious that may impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources. Annual updates.	\$15,000.00	\$7,500.00 per site	IN- HOUSE	Planned
USFWS Interior Region 5/7 TBD	LTADEVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability and will provide long term sustainability of 88th RD lands to support military training.	\$0.00	per location	VENQ	Contingent upon need
KS031/20790	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$4,966.00	per update	VENQ	Planned
NE010/21895	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$16,234.00	per update	VENQ	Planned



**FY23 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 TBD	NRSRVY	The PLS/INRMP policy memorandum requires execution of initial planning level surveys (NRSRVY) including flora, fauna, soil, topography, vegetative communities, and surface water. NRSRVY reports spatial data used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$20,761.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVYUP	Execution of NRSRVYUP of flora, fauna, soil, topography, vegetative communities, and surface water. Installations require updates to basic information for natural resources management and long-term mission support, including documentation of the various ecological characteristics that exist on the installation.	\$0.00	per update	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil and water resources management on 88th RD training land maneuver areas to include preventing or controlling sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or other erosion resulting from the lack of maintenance to real property.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need
Various USFWS Interior Region 5/7 locations	TRNGCNS	Funding is required to train field staff and tenant units on natural resources program requirements and environmental stewardship. This includes development of training materials, and conducting the training sessions via multiple methods. The number of personnel trained will be specific to units exercising / stationed at the LTA/site; approximately 1 training event is conducted per year.	\$47,450.00	N/A	VENQ	Planned

**FY23 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 LTA TBD	WLDNFIREPLNIMPL	Integrated Wildland Fire Management Plans (IWFMP) identifies fire management needs and actions on the ground including prescribed burning and wildfire suppression. These plans must be reviewed on an annual basis to ensure that mission priorities and the best available scientific data and methods have been incorporated.	0.00		VENQ / 21F	No activity planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	WTLNDSRVY	Initial wetland delineation takes place after the initial NRSRVY indicated that the wetlands at a particular 88th RD site requires a detailed evaluation of the wetlands present to determine if they are potentially jurisdictional.	\$25,000.00	per site	VENQ	No requirements
NE010/31895	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. High resource sites.	\$21,173.00	\$21,173.00 per site	VENQ	Planned
CO017/08660	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. Medium resource sites.	\$16,881.00	\$16,881.00 per site	VENQ	Planned
88th RD	CNSPGMMGT	Annual salaries and benefits.	\$302,000.00	N/A	VENQ	Planned
88th RD	TRNGSNSSTAFF	Professional development and training.	\$17,085.00.00	N/A	VENQ	Planned

## FY24 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Annual INRMP review and update	\$11,880.00	per update	IN - HOUSE	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community.	\$7,000.00	inclusive	VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESCMPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$80,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision has been carried forward from FY15 to FY22, and will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	Implementation of existing Endangered Species Management Component (ESMC) is required and will capture newly listed species, best available scientific data, and management strategies.	\$40,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVY	To determine whether a federally threatened or endangered species is present on sites within the 88th RD.	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVYUP	Funding is required to update previous determination as to whether the federally threatened or endangered species are present on sites within the 88th RD. The 88th RD has projected site specific requirements. Previous endangered surveys have determined that there is potential habitat for the threatened or endangered species on select sites.	\$26,000.00	\$13,000.00 per species survey	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	FORESTPLN	Forest Management Plans (per INRMP requirements) for lands in the 88th RD's AOR will be developed for locations on an as needed basis.	\$29,000.00	per location	IN - HOUSE	Contingent upon need

**FY24 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR.	\$5,000.00	per update	IN-HOUSE	Planned
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$0.00		QMUN/ VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	Contingent upon need
USFWS Interior Region 5/7 TBD	LTADEVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability and will provide long term sustainability of 88th RD lands to support military training.	\$0.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVY	The initial PLS/INRMP policy memorandum requires execution of planning level surveys (NRSRVY) including flora, fauna, soil, topography, vegetative communities, and surface water. NRSRVY reports spatial data used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$25,000.00	per location	VENQ	Contingent upon need

**FY24 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 TBD	NRSRVYUP	The PLS/INRMP policy memorandum requires execution of planning level survey updates including flora, fauna, soil, topography, veg communities, & surface water. Installations req updates to basic info for natural resources mgmt., & long-term mission support, incl documentation of the ecological characteristics of the installation. Survey reports & spatial data used for mission planning, envl compliance assmnts for site devlmt & construction projects, natural resources mgmt, endangd species mgmt, along w/ other plng purposes.	\$25,000.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil & water resources mgmt on 88th RD training land maneuver areas to incl preventing or contrlng sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or erosion resulting from the lack of real prop maintenance.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is req to determine whether the state endgred species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$26,000.00	\$13,000.00 per species	VENQ	Contingent upon need
Various USFWS Interior Region 5/7 locations	TRNGCNS	Funding is req to train field staff and tenant units on natural resources prgm reqs & envl stewardship. Incls develmnt of training materials, & conducting training sessions via multi methods. The number of personnel trained will be specific to units exercising / stationed at the LTA/site; approx 1 training event conducted per year.	\$47,450.00	N/A	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WLDIFIREPLNIMPL	Integrated Wildland Fire Management Plan (IWFMP) identifies fire management needs and actions on the ground inclng prescribed burning & wildfire suppression. These plans must be reviewed on an annual basis to ensure incorporated mission priorities & the best avail scientific data & methods.	\$0.00	Per acre	VENQ / 21F	No activity planned

**FY24 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
KS031/20790 NE010-31895	WLDFFIREPLNUP	Annual update to the Integrated Wildland Fire Management Plans (IWFMP) to identify fire management needs. This activity is limited to the LTAs.	\$15,000.00	\$7,500.00 / site	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	WTLNDSRVY	Initial wetland delineation takes place after the initial NRSRVY indicated that the wetlands at a particular 88th RD site requires a detailed evaluation of the wetlands present to determine if they are potentially jurisdictional.	\$25,000.00	per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. High resource sites.	\$0.00	per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. Medium resource sites.	\$0.00	per site	VENQ	No requirements
88th RD	CNSPGMMGT	Annual salaries and benefits	\$302,000.00	N/A	VENQ	Planned
88th RD	TRNGSNSSTAFF	Professional development and training	\$17,085.00	N/A	VENQ	Planned

## FY25 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Initiate 5-year INRMP Update	\$189,000.00	per update	VENQ	Planned
USFWS Interior Region 5/7	INRMPUP	Annual review and update of INRMP	\$11,880.00	per update	IN-HOUSE	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community	\$7,000.00		VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESCMPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$0.00	per plan	VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	Implementation of existing Endangered Species Management Component (ESMC) is required and will capture newly listed species, best available scientific data, and management strategies	\$0.00	per plan	VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	ESSRVY	To determine whether a federally threatened or endangered species is present on sites within the 88th RD	\$30,000.00	\$15,000.00 per species	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVYUP	Funding is required to update previous determination as to whether the federally threatened or endangered species are present on sites within the 88th RD. The 88th RD has projected site specific requirements. Previous endangered surveys have determined that that there is potential habitat for the threatened or endangered species on select sites.	\$30,000.00	\$15,000.00 per species survey	VENQ	Contingent upon need

**FY25 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 (TBD)	FORESTPLN	Forest Management Plans (per INRMP requirements) for lands in the 88th RD's AOR will be developed for locations on an as needed basis.	\$29,000.00	per location	IN-HOUSE	Contingent upon need
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR,	\$5,000.00	per update	IN-HOUSE	Planned
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$0.00		QMUN/ VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	Contingent upon need
USFWS Interior Region 5/7 TBD	LTADEVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability and will provide long term sustainability of 88th RD lands to support military training.	\$0.00	Per location	VENQ	Contingent upon need
KS031/20790	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$4,996.00	per update	VENQ	Planned
NE010/21895	MBTASRVY	These assessments identify and document occurrence of birds protected under the Migratory Bird Treaty Act (16 USC § 703 – 712).	\$16,234.00	per update	VENQ	Planned



**FY25 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 TBD	NRSRVY	The PLS/INRMP policy memorandum requires execution of initial planning level surveys (NRSRVY) including flora, fauna, soil, topography, vegetative communities, and surface water. NRSRVY reports spatial data used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$25,000.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVYUP	The PLS/INRMP policy memorandum requires execution of planning level survey updates including flora, fauna, soil, topography, vegetative communities, and surface water. Installations require updates to basic information for natural resources management and long-term mission support, including documentation of the various ecological characteristics that exist on the installation. Survey reports and spatial data are used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$20,761.18	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil and water resources management on 88th RD training land maneuver areas to include preventing or controlling sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or other erosion resulting from the lack of maintenance to real property.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$30,000.00	\$15,000.00 per species	VENQ	Contingent upon need

**FY25 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
Various USFWS Interior Region 5/7 locations	TRNGCNS	Funding is required to train field staff and tenant units on natural resources program requirements and environmental stewardship. This includes development of training materials, and conducting the training sessions via multiple methods. The number of personnel trained will be specific to units exercising / stationed at the LTA/site; approximately 1 training event will be conducted per year.	\$47,450.00	N/A	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WLDFFIREPLNIMPL	Integrated Wildland Fire Management Plans (IWFMP) identifies fire management needs and actions on the ground including prescribed burning and wildfire suppression. These plans must be reviewed on an annual basis to ensure that mission priorities and the best available scientific data and methods have been incorporated.	\$0.00		VENQ / 21F	No activity planned
KS031-20790 NE010-31895	WLDFFIREPLNUP	Annual update to the Integrated Wildland Fire Management Plans (IWFMP) to identify fire management needs. This activity is limited to the LTAs.	\$15,000.00	\$7,500.00 / site	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	WTLNDSRVY	Initial wetland delineation takes place after the initial NRSRVY indicated that the wetlands at a particular 88th RD site requires a detailed evaluation of the wetlands present to determine if they are potentially jurisdictional.	\$25,000.00	per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. Medium resource sites.		per site	VENQ	No requirements
88th RD	CNSPGMMGT	Annual salaries and benefits.	\$302,000.00	N/A	VENQ	Planned
88th RD	TRNGSNSSTAFF	Professional development and training.	\$17,085.00	N/A	VENQ	Planned

## FY26 PLANNED

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7	INRMPUP	Annual review and update of INRMP	\$11,800.00	per update	IN- HOUSE	Planned
KS031/20790	AG/LEASEIMPL	Agricultural lease - \$5,000.00 per COE admin costs per site; 1 site; \$4,000.00 CNSV Plan implementation	\$9,000.00	See Brief Description	RPTS/ VENQ	Planned
NE010/31895	AG/LEASEIMPL	Agricultural lease - \$5,000.00 per COE admin costs per site; 1 site; \$4,000.00 CNSV Plan implementation	\$9,000.00	See Brief Description	RPTS/ VENQ	Planned
USFWS Interior Region 5/7	EARTH DAY	Project to support Earth Day and provide education and awareness to the Army Reserve and community	\$7,000.00		VENQ	Planned
USFWS Interior Region 5/7 (TBD)	ESMCPLN	An Endangered Species Management Component (ESMC) may be required when a threatened and endangered species is found on an 88th RD site.	\$80,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision has been carried forward from FY15 to FY22, and will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNIMPL	Implementation of existing Endangered Species Management Component (ESMC) is required and will capture newly listed species, best available scientific data, and management strategies	\$40,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESMCPLNUP	Update to an existing Endangered Species Management Component (ESMC) is required. This revision has been carried forward from FY15 to FY22, and will capture newly listed species, best available scientific data, and management strategies.	\$55,000.00	per plan	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	ESSRVY	To determine whether a federally threatened or endangered species is present on sites within the 88th RD	\$30,000.00	\$15,000.00 per species	VENQ	Contingent upon need

**FY26 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 (TBD)	ESSRVYUP	Funding is required to update previous determination as to whether the federally threatened or endangered species are present on sites within the 88th RD. The 88th RD has projected site specific requirements. Previous endangered surveys have determined that there is potential habitat for the threatened or endangered species on select sites.	\$30,000.00	\$15,000.00 per species survey	VENQ	Contingent upon need
USFWS Interior Region 5/7 (TBD)	FORESTPLN	Forest Management Plans (per INRMP requirements) for lands in the 88th RD's AOR will be developed for locations on an as needed basis.	\$29,000.00	per location	IN-HOUSE	Contingent upon need
KS031/20790	FORESTPLNUP	Updates to existing Forest Management Plans annually (per INRMP requirements) for lands in the 88th RD's AOR,	\$5,000.00	per update	IN-HOUSE	Planned
KS031/20790	FORESTPLNIMPL	Implementation may include control of invasive species, prescribed burning, or timber harvests to minimize risk of catastrophic fires and ensure Reserve Soldiers' safety and access to a realistic training environment.	\$0.00		QMUN/ VENQ	No requirement
USFWS Interior Region 5/7 (TBD)	INVSIMPLMNT	Invasive and noxious species identified in the INRMP work orders will be submitted.	\$0.00	per site	QMUN	Contingent upon need
UT035/49676	INV SPLNUP	Update Invasive management plans	\$35,000.00	per update	VENQ/ QDPW	Planned
KS031/20790 NE010/31895	INV SPLNUP	The Invasive Species Management Plans compile data to address species that may pose a health and safety risk, and those identified by the USDA as noxious that may impact the economy. Implementation of the plans expands access to training lands and protects valuable concealment resources.	\$15,000.00	\$7,500.00 per site	IN-HOUSE	Planned
USFWS Interior Region 5/7 TBD	LTADEVELOP	Funding is required to develop and maintain the 88th RD LTAs for unit training, along with integration of all military and recreational activities on 88th RD lands. LTA development is required to promote long term sustainability and will provide long term sustainability of 88th RD lands to support military training.	\$0.00	per location	VENQ	Contingent upon need

**FY26 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
USFWS Interior Region 5/7 TBD	NRSRVY	The PLS/INRMP policy memorandum requires execution of initial planning level surveys (NRSRVY) including flora, fauna, soil, topography, vegetative communities, and surface water. NRSRVY reports spatial data used for mission planning, environmental compliance assessments for site development and construction projects, natural resources management, endangered species management, and a variety of other planning purposes.	\$25,000.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	NRSRVYUP	The PLS/INRMP policy memorandum requires execution of PLS updates including flora, fauna, soil, topography, veg communities, & surface water. Installations req updates to basic info for natural resources mgmt. & long-term mission sppt, incl documentation of installation ecological characteristics. Survey reports & spatial data for mission planning, envl compliance assmnts for site development & construction projects, natural resources mgmt., endangered species mgmt., & other planning purposes.	\$25,000.00	per location	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	SLSH20MGT	Funding is required to conduct soil and water resources management on 88th RD training land maneuver areas to include preventing or controlling sedimentation, beach, or stream bank erosion if not attributable to maneuver damage, tank trail maintenance, road maintenance, firebreaks, or other erosion resulting from the lack of maintenance to real property.	\$0.00	by project	VENQ / QRPA / QDEH	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$30,000.00	\$15,000.00 per species	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	STATEESSRVY	Funding is required to determine whether the state endangered species are present on sites within the 88thRD. Recent NRSRVYUPs determine if there is potential habitat for the state endangered species on select sites.	\$30,000.00	\$15,000.00 per species	VENQ	Contingent upon need

**FY26 PLANNED (continued)**

LOCATION	PROJECT	BRIEF DESCRIPTION	COST	PER UNIT	MDEP	STATUS
Various USFWS Interior Region 5/7 locations	TRNGCNS	Funding is required to train field staff and tenant units on natural resources program requirements and envl stewardship. This includes development of training materials, and conducting the training sessions via multiple methods.	\$47,450.00	N/A	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WLDFIREPLNIMPL	Integrated Wildland Fire Management Plans (IWFMP) identifies fire management needs and actions on the ground including prescribed burning and wildfire suppression. These plans are reviewed annually to ensure that mission priorities and the best available scientific data and methods have been incorporated.	\$0.00		VENQ / 21F	No activity planned
KS031-20790 NE010-31895	WLDFIREPLNUP	Annual update to the Integrated Wildland Fire Management Plans (IWFMP) to identify fire management needs. This activity is limited to the LTAs.	\$15,000.00	\$7,500.00 per site	VENQ	Planned
USFWS Interior Region 5/7 LTA TBD	WTLNDRESTR	Wetlands within the 88th RD's AOR have been identified as having reduced or compromised hydrologic function and/or ecological integrity. Restoration of these wetlands has been incorporated in the applicable INRMPs.	\$50,000.00	per site	VENQ	Contingent upon need
USFWS Interior Region 5/7 TBD	WTLNDSRVY	Initial wetland delineation takes place after the initial NRSRVY indicated that the wetlands at a particular 88th RD site requires a detailed evaluation of the wetlands present to determine if they are potentially jurisdictional.	\$25,000.00	per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. High resource sites.		per site	VENQ	No requirements
USFWS Interior Region 5/7 TBD	WTLNDSRVYUP	Wetland delineation updates take place either on a 5-year cycle or on an as needed basis. Medium resource sites.		per site	VENQ	No requirements
88th RD	CNSPGMMGT	Annual salaries and benefits.	\$302,000.00	N/A	VENQ	Planned
88th RD	TRNGSNSSTAFF	Professional development and training.	\$17,085.00	N/A	VENQ	Planned

## **Appendix D: Annual Review Summaries**

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## Appendix E: Component Plans

**Endangered Species Management Plan** – No requirements for USFWS Interior Region 5/7

**Forestry Management Plan** –

Forest Management Plan Sunflower LTA, De Soto, Kansas, Prepared by: Advanced Environmental Management Group 44339 Plymouth Oaks Blvd. Plymouth, Michigan, 48170-2585, January 30, 2016

**Forest Management Plans and Cemetery Management Plans**

PARS Environmental Inc., 2012. Forest Management Summary Report for Fort Douglas Cantonment Area and Post Cemetery, Salt Lake City, Utah. (UT002/49276)

**Hunting Management Plan** - No current plans for USFWS Interior Region 5/7 sites

**ICRMP – Colorado\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, Colorado.

**ICRIMP – Kansas\***

U.S. Army Reserve, 2019-2024. Integrated Cultural Resources Management Plan, 88th Readiness Division, Kansas.

**ICRIMP – Montana\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, Montana.

**ICRIMP – Nebraska\***

U.S. Army Reserve, 2019-2024. Integrated Cultural Resources Management Plan, 88th Readiness Division, Nebraska.

**ICRIMP – North Dakota\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, North Dakota.

**ICRIMP – South Dakota\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, South Dakota.

**ICRIMP – Utah\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, Utah.

**ICRIMP – Wyoming\***

U.S. Army Reserve, 2021-2025. Integrated Cultural Resources Management Plan, 88th Readiness Division, Wyoming.

**Integrated Wildland Fire Management Plans**

Army Integrated Wildland Fire Management Plan for Sunflower Local Training Area, Desoto, Kansas. (KS031/20790) CH2M Hill, 2012.

Army Integrated Wildland Fire Management Plan for Mead Local Training Area, Mead, Nebraska. (NE010/31895) CH2M Hill, 2012.

### **Invasive Species Management Plans -**

BHE Environmental, Inc., 2011. Invasive/Noxious Species Inventory and Management Plans at Select 88th Readiness Division (RD) US Army Reserve Sites in Colorado and Utah. (CO017/08660, CO020/08805, CO128/08801, UT003/49655, UT007/49676, UT032/49850, and UT035/49676)

### **Pest Management Plan**

U.S. Army Reserve, 2020. 88th RD Integrated Pest Management Plan 5-year update, 88th Readiness Division, Ft. McCoy, Wisconsin. Updated on an annual basis

**Tree Management Plan** - No current plans for Interior Region 5/7 sites

### **U.S. Army Reserve, Invasive Species Management Plan**

FY20 Annual Review of the 5 year Mead LTA (NE010/31895) Invasive Species Management Plan (ISMP): FY19 - FY23.

FY20 Annual Review of the 5 year Sunflower LTA (KS031/20790) Invasive Species Management Plan (ISMP): FY19 - FY23.

\* - ICRMPs are not appended to this document to keep it a manageable size. ICRMPs are available upon request or contact the 88th RD Cultural Resources Manager.

**Component Plans will be available upon request.**

## **Appendix F: Stakeholder Coordination**

- Tripartite Memorandum of Understanding
- MOU between DoD and USFWS to Promote the Conservation of Migratory Birds
- Interagency Agreement between the United States Fish and Wildlife Service and the the United States Army for the Conservation of Natural Rresources on Army Controlled Lands

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**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE U.S. DEPARTMENT OF DEFENSE  
AND  
THE U.S. FISH AND WILDLIFE SERVICE  
AND  
THE ASSOCIATION OF FISH AND WILDLIFE AGENCIES  
FOR A  
COOPERATIVE INTEGRATED NATURAL RESOURCE MANAGEMENT PROGRAM  
ON MILITARY INSTALLATIONS**

**A. PURPOSE**

The purpose of this Memorandum of Understanding (MOU) is to further a cooperative relationship between the U.S. Department of Defense (DoD), U.S. Department of the Interior – Fish and Wildlife Service (FWS), and state fish and wildlife agencies (states) acting through the Association of Fish and Wildlife Agencies (AFWA) (hereafter referred to as the Parties) in preparing, reviewing, revising, updating and implementing Integrated Natural Resource Management Plans (INRMPs) for military installations.

**B. BACKGROUND**

In recognition that military lands have significant natural resources, Congress enacted the Sikes Act in 1960 to address wildlife conservation and public access on military installations. The 1997 amendments to the Sikes Act require the DoD to develop and implement an INRMP for each military installation with significant natural resources. A 2012 amendment to the Sikes Act now authorizes the preparation of INRMPs for state-owned National Guard installations used for training pursuant to chapter 5 of title 32 of the United States Code. DoD must prepare all INRMPs in cooperation with the FWS and states. Each INRMP must reflect the mutual agreement of the Parties concerning conservation, protection, and management of fish, wildlife, plants and their habitats on military lands.

INRMPs provide for the management of natural resources, including fish and wildlife and their habitats. To the maximum extent practicable, they incorporate ecosystem management principles, and describe procedures and projects that manage and maintain the landscapes necessary to sustain military-controlled lands for mission purposes. INRMPs also allow for multipurpose uses of resources, including public access appropriate for those uses, provided such access does not conflict with military land use, security requirements, safety, or ecosystem needs, including the needs of fish and wildlife resources. Effective communications and coordination among the Parties, initiated early in the planning process at national, regional, and the military installation levels, is essential to developing, reviewing, and implementing comprehensive INRMPs. When such partnering involves the participation and coordination of all Parties regarding existing FWS and state natural resources management plans or initiatives, such as threatened and endangered species recovery plans or State Wildlife Action Plans, the mutual agreement of all Parties is achieved more easily. INRMPs provide for the conservation

and rehabilitation of natural resources on military lands in ways that help ensure the readiness of the Armed Forces. Thus, a clear understanding of land use objectives for military lands should enable the Parties to have a common understanding of DoD's land management requirements.

This MOU addresses the responsibilities of the Parties to facilitate optimum management of natural resources on military installations. It replaces a DoD-FWS-AFWA MOU for *Cooperative Integrated Natural Resources Management Program on Military Installations* dated January 31, 2006, which expired January 31, 2011.

### **C. AUTHORITIES**

This MOU is established under the authority of the Sikes Act, as amended, 16 U.S.C. 670a-670f, which requires the Secretary of Defense to carry out a program to provide for the conservation and rehabilitation of natural resources on military installations in cooperation with the FWS and states. The DoD's primary mission is national defense. DoD manages approximately 28 million acres of land and waters under the Sikes Act to support sustained military activities while conserving and protecting biological resources.

The FWS manages approximately 150 million acres of the National Wildlife Refuge System, and administers numerous fish and wildlife conservation and management statutes and authorities, including the: Fish and Wildlife Coordination Act, Migratory Bird Treaty Act of 1918, Endangered Species Act, Marine Mammal Protection Act, Bald and Golden Eagle Protection Act, Anadromous Fish Conservation Act, Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, Federal Noxious Weed Act, Alien Species Prevention Enforcement Act of 1992, North American Wetland Conservation Act, and Coastal Barrier Resources Act.

The states in general possess broad trustee and police powers over fish and wildlife within their borders, including – absent a clear expression of Congressional intent to the contrary – fish and wildlife on federal lands within their borders. Where Congress has given federal agencies certain conservation responsibilities, such as for migratory birds or species listed as threatened or endangered under the Endangered Species Act, the states, in most cases, have cooperative management responsibilities.

The Sikes Act (16 U.S.C. 670c-1) allows the Secretary of a military department to enter into cooperative agreements with the states, local governments, Indian tribes, nongovernmental organizations, and individuals to provide for the maintenance and improvement of natural resources, or to benefit natural and historic research, both on and off DoD installations.

The Sikes Act (16 U.S.C. 670a(d)(2)) also encourages the Secretary of Defense, to the greatest extent practicable, to enter into agreements to use the services, personnel, equipment, and facilities, with or without reimbursement, of the Secretary of the Interior or states in carrying out the provisions of this section.

The Economy Act (31 U.S.C. 1535 and 1536) allows a federal agency to enter into an agreement with another federal agency for services, when those services can be rendered in a more

convenient or cost effective manner by another federal agency.

#### **D. RESPONSIBILITIES**

The Parties to this agreement hereby enter into a cooperative program of INRMP development, review, and implementation with mutually agreed-upon fish and wildlife conservation objectives to satisfy Sikes Act goals.

##### **1. The DoD, the FWS and AFWA (Parties) mutually agree:**

- a. To meet at least annually at the headquarters' level to discuss implementation of this MOU. The DoD and FWS will alternate responsibilities for coordinating this annual meeting and any other meetings related to this MOU. Proposed amendments to the MOU should be presented in writing to the parties at least 15 days prior to the annual meeting. The terms of this MOU and any proposed amendments may be reviewed at the annual meeting. The meeting may also review mutual Sikes Act research and technology needs, accomplishments, and other emerging issues.
- b. To participate in a Sikes Act Tripartite Core Group consisting of representatives from the Parties. This Core Group will meet at least quarterly, coordinated by the DoD, to discuss and develop projects and guidance to help prepare and implement INRMPs and to discuss Sikes Act issues of national importance.
- c. To engage in sound management practices for natural resource protection and management pursuant to this MOU with full consideration for military readiness; native fish and wildlife; threatened, endangered and at-risk species; and the environment.
- d. To promote the sustainable multipurpose use of natural resources on military installations – including hunting, fishing, trapping, and non-consumptive uses such as wildlife viewing, boating, and camping – in ways that are consistent with DoD's primary military mission and to the extent reasonably practicable.
- e. To develop and implement supplemental Sikes Act MOUs or other agreements, as needed, at the regional and/or state level.
- f. To recognize the most current DoD and FWS Sikes Act Guidance as the guidance for communication and cooperation of the Parties represented by this MOU.
- g. To post current DoD, FWS, and state Sikes Act guidance documents within 14 days of completion on the following sites:
  - i. For DoD: <https://www.denix.osd.mil/nr>
  - ii. For FWS: [http://www.fws.gov/habitatconservation/sikes\\_act.html](http://www.fws.gov/habitatconservation/sikes_act.html)
  - iii. For the states: <http://www.fishwildlife.org>

- h. To cooperatively prepare and conduct full reviews of all new INRMPs in a timely manner.
- i. To require the DoD Components and appropriate FWS and state offices to conduct a review for operation and effect of each INRMP no less often than every five years, as required by the Sikes Act, and to document these reviews. As a means of facilitating and streamlining this statutory requirement, use the annual progress review of each INRMP as conducted by each DoD Component per DoD policy.
- j. To encourage collaboration in annual progress reviews between representatives from each military installation with an INRMP and appropriate representatives from the other Parties.
  - i. The Parties shall discuss the performance of each military installation in meeting relevant DoD Natural Resources Focus Area metrics, and potential improvements to INRMP implementation, such as new projects or management practices.
  - ii. Meetings may be in person or by another mutually acceptable means.
  - iii. The Parties shall discuss methods and projects that the FWS and states can implement that support INRMP goals and objectives.
- k. To streamline and expedite the review of INRMP updates or revisions, and to effectively address review for critical habitat exclusions based on the INRMP conservation benefit, when feasible:
  - i. DoD and the FWS will develop and implement a streamlined review process within six months of signature of this MOU that will allow for expedited review and approval (new signatures) of updated sections of each INRMP.
  - ii. DoD will provide a means of easily identifying all changes to each updated or revised INRMP when forwarding it for review.
  - iii. FWS will focus review on those parts of updated INRMPs that reflect changes from the previously reviewed version.
  - iv. FWS and the appropriate states will review all INRMPs with major revisions (e.g., changes required by mission realignments, the listing of new species or other significant action that has the potential to affect military operations or readiness).
  - v. DoD, FWS, and the states (acting through AFWA) will continue to seek opportunities to make INRMP review processes more efficient while sustaining and enhancing INRMP conservation effectiveness.
  - vi. The DoD Components may submit to the USFWS, a priority INRMP list



to address those installations seeking critical habitat exclusions to facilitate coordination with USFWS Endangered Species office.

vii. To ensure consistency, the Parties accept the following definitions:

- a) **Compliant INRMP:** An INRMP that has been both approved in writing, and reviewed, within the past five years, as to operation and effect, by authorized officials of DoD, DOI, and each appropriate state fish and wildlife agency.
- b) **Review for operation and effect:** A comprehensive, joint review by the parties to the INRMP, conducted no less often than every five years, to determine whether the plan needs an update or revision to continue to address adequately Sikes Act purposes and requirements.
- c) **INRMP update:** Any change to an INRMP that, if implemented, is not expected to result in consequences materially different from those in the existing INRMP and analyzed in an existing NEPA document. Such changes will not result in a significant environmental impact, and installations are not required to invite the public to review or to comment on the decision to continue implementing the updated INRMP.
- d) **INRMP revision:** Any change to an INRMP that, if implemented, may result in a significant environmental impact, including those not anticipated by the parties to the INRMP when the plan was last approved and/or reviewed as to operation and effect. All such revisions require approval by all parties to the INRMP, and will require a new or supplemental NEPA analysis.

l. That none of the Parties to the MOU is relinquishing any authority, responsibility, or duty established by law, regulation, policy, or directive.

m. To designate the officials listed below, or their delegates to participate in the activities pursuant to this MOU.

- i. DoD: Deputy Director, Natural Resources Conservation Compliance, ODUSD (I&E) ESOH
- ii. FWS: National Sikes Act Coordinator, Fish and Aquatic Conservation
- iii. AFWA: Director, Government Affairs

## 2. DoD agrees to:

- a. Communicate the establishment of this MOU to all DoD Components.
- b. Take the lead in developing policies and guidance related to INRMP development, updates, revisions, and implementation, and to ensure the involvement, as appropriate, in these processes of the FWS and state fish and wildlife agencies.

- c. Ensure distribution of the DoD and FWS Sikes Act Guidance to all appropriate DoD Components.
- d. Encourage DoD Components to invite appropriate FWS and state fish and wildlife agency offices to participate in annual INRMP reviews. All such invitations should be extended at least 15 business days in advance of the scheduled review to facilitate meaningful participation by all three Parties. Meetings may be in person or by other mutually agreed upon means.
- e. Encourage DoD Components to take full advantage of FWS and state fish and wildlife agency natural resources expertise through the use of Economy Act transfers and cooperative agreements. Encourage DoD Components and FWS to explore the use of the Fish and Wildlife Coordination Act for technical assistance, fish stocking, and other conservation projects. Priority should be given to projects that:
  - i. Sustain the military mission.
  - ii. Effectively apply ecosystem management principles.
  - iii. Consider the strategic planning priorities of the FWS and the state fish and wildlife agency.
- f. Encourage DoD Components to give priority to INRMP requirements that:
  - i. Sustain military mission activities while ensuring conservation of natural resources.
  - ii. Provide adequate staffing with the appropriate expertise for updating, revising, and implementing each INRMP within the scope of DoD Component responsibilities, mission, and funding constraints.
- g. Encourage DoD Components to discuss with the FWS and state fish and wildlife agencies all issues of mutual interest related to the protection, conservation, and management of fish and wildlife resources on DoD installations.
- h. Subject to mission, safety, security, and ecosystem requirements, provide public access to military installations to facilitate the sustainable multipurpose use of its natural resources.
- i. Identify natural resource research needs, and develop research proposals with input from the Parties.
- j. Identify opportunities to work with the DoD Components to facilitate:
  - i. Cooperative regional and local natural resource conservation partnerships and initiatives with FWS and state fish and wildlife agency offices.
  - ii. Natural resources conservation technology transfer and training initiatives

between the DoD Components, federal land management agencies, and state fish and wildlife agencies.

- k. Provide law enforcement support to protect fish, wildlife, and plant resources on military installations consistent with jurisdiction and authority.

**3. FWS agrees to:**

- a. Communicate the establishment of this MOU to each FWS Regional Office and appropriate field offices in close proximity to military installations.
- b. Distribute the DoD and FWS Sikes Act Guidelines to each FWS Regional Office and appropriate field office in close proximity to military installations.
- c. Designate regional and field office FWS liaisons to develop partnerships and help DoD implement joint management of ecosystem-based natural resource management programs, and provide a list of those liaisons to the DoD as needed.
- d. Provide technical assistance with the appropriate expertise to the DoD in managing its resources within the scope of FWS responsibilities and funding constraints.
- e. Encourage field offices to coordinate current and proposed FWS natural resource initiatives and research efforts with those that may relate to DoD installations, and to provide applicable installations with new and relevant information pertaining to distribution and/or research regarding listed and candidate species and species at-risk.
- f. Inform DoD Components and affected installations regarding upcoming and reasonably foreseeable proposed listing and critical habitat designations that may potentially affect military installations in a timely manner before publication of such proposals in the Federal Register.
- g. Encourage regional and field offices to expedite pending INRMP reviews that may affect foreseeable proposed listing of threatened and endangered species and critical habitat designations.
- h. Provide law enforcement support as appropriate to protect fish, wildlife, and plant resources on military installations within the jurisdiction of the FWS.
- i. Identify FWS refuges and other potential federal management areas in close proximity to military installations, and, where appropriate, participate in the joint management of ecosystem-based natural resource management projects that support INRMP and other planning goals, objectives, and implementation.

**4. AFWA agrees to:**

- a. Communicate the establishment of this MOU to each state fish and wildlife agency director and appropriate personnel.

- b. Distribute the DoD and FWS Sikes Act Guidelines to each state fish and wildlife agency director and appropriate staff.
- c. Facilitate and coordinate with the states to encourage them to:
  - i. Participate in developing, reviewing, updating, revising, approving and, as appropriate implementing INRMPs in a timely way upon request by military installation personnel.
  - ii. Designate state liaisons to help develop partnerships and to help DoD installation staff implement natural resource conservation and management programs.
  - iii. Identify state wildlife management areas in close proximity to military installations and, where appropriate, participate in the joint management of ecosystem-based natural resources projects that support INRMP goals, objectives, and implementation.
  - iv. Provide technical assistance to DoD installation staff in adaptively managing natural resources within the scope of state responsibilities, funding constraints, and expertise.
  - v. Identify state personnel needs to develop, review, update/revise, approve, and implement INRMPs, and facilitate the identification of funding opportunities to address the fulfillment of state priorities.
  - vi. Coordinate current and proposed state natural resources research efforts with those that may relate to DoD installations.
  - vii. Coordinate with DoD installations to develop new, and implement existing, conservation plans and strategies, including, but not limited to State Wildlife Action Plans; the National Fish, Wildlife and Plants Climate Adaptation Strategy; goals or initiatives of the North American Bird Conservation Initiative (NABCI) and/or Partners in Amphibian and Reptile Conservation (PARC); and the National Fish Habitat Action Plan.

**E. STATEMENT OF NO FINANCIAL OBLIGATION**

This MOU does not impose any financial obligation on the part of any signatory.

**F. ESTABLISHMENT OF COOPERATIVE AGREEMENTS**

The Parties are encouraged to enter into cooperative or interagency agreements to coordinate and implement natural resource management on military installations. If fiscal resources are required, the Parties must develop a separately funded cooperative or interagency agreement.

Such cooperative or interagency agreements may also be entered into under the authority of the Sikes Act (16 U.S.C. 670c-1). Interagency agreements may be entered into under the authority of the Economy Act (31 U.S.C. 1535 and 1536). The Parties should also explore opportunities to utilize the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-666c) to facilitate agreements for FWS technical assistance, fish stocking, and other conservation activities. Each funded cooperative or interagency agreement shall include a work plan and a financial plan that identify goals, objectives, and a budget and payment schedule. A cooperative or interagency agreement to accomplish a study or research also will include a study design and methodology in the work plan. It is understood and agreed that any funds allocated via these cooperative or interagency agreements shall be expended in accordance with its terms and in the manner prescribed by the fiscal regulations and/or administrative policies of the party making the funds available.

#### **G. AMENDMENTS**

This MOU may be amended at any time by mutual written agreement of the Parties.

#### **H. TERMINATION**

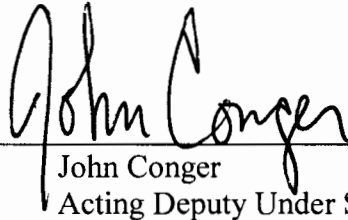
Any party to this MOU may remove itself upon sixty (60) days written notice to the other parties.

#### **I. EFFECTIVE DATE AND DURATION**

This MOU will be in effect upon date of final signature, and will continue for ten years from date of final signature. The parties will meet six (6) months prior to the expiration of this MOU to discuss potential modifications and renewal terms.

7-29-13

Date



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John Conger  
Acting Deputy Under Secretary of Defense  
(Installations and Environment)  
U.S. Department of Defense

6.24.13

Date

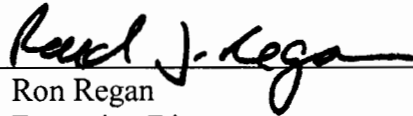


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Dan Ashe  
Director  
Fish and Wildlife Service  
U.S. Department of Interior

7-15/2013

Date



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Ron Regan  
Executive Director  
Association of Fish and Wildlife Agencies

**MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. DEPARTMENT OF DEFENSE  
AND THE  
U.S. FISH AND WILDLIFE SERVICE  
TO PROMOTE THE CONSERVATION OF MIGRATORY BIRDS**

This Memorandum of Understanding (MOU) is entered into between the U.S. Department of Defense (DoD) and the U.S. Fish and Wildlife Service (FWS) (hereinafter "the Parties").

**A. Purpose and Scope**

Pursuant to Executive Order 13186 (January 17, 2001), Responsibilities of Federal Agencies to Protect Migratory Birds, this MOU outlines a collaborative approach to promote the conservation of migratory bird populations.

This MOU does not address incidental take during military readiness activities, which is being addressed in a rulemaking in accordance with section 315 of the National Defense Authorization Act for Fiscal Year 2003 (Pub. L. 107-314, 116 Stat. 2458).

This MOU specifically pertains to the following categories of DoD activities:

- (1) Natural resource management activities, including, but not limited to, habitat management, erosion control, forestry activities, agricultural outleasing, conservation law enforcement, invasive weed management, and prescribed burning;
- (2) Installation support functions, including but not limited to, the maintenance, construction or operation of administrative offices, military exchanges, road construction, commissaries, water treatment facilities, storage facilities, schools, housing, motor pools, non-tactical equipment, laundries, morale, welfare, and recreation activities, shops, landscaping, and mess halls;
- (3) Operation of industrial activities;
- (4) Construction or demolition of facilities relating to these routine operations; and
- (5) Hazardous waste cleanup.

This MOU identifies specific activities where cooperation between the Parties will contribute substantially to the conservation of migratory birds and their habitats. This MOU does not authorize the take of migratory birds.

## **B. Authorities**

The Parties' responsibilities under the MOU are authorized by provisions of the following laws:

Alaska National Interest Lands Conservation Act of 1980 (16 USC 410hh-3233)  
Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668-668d)  
Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)  
Fish and Wildlife Act of 1956 (16 U.S.C. 742 et seq.)  
Fish and Wildlife Conservation Act of 1980 (16 U.S.C. 2901-2911)  
Fish and Wildlife Coordination Act (16 U.S.C. 661-667)  
Migratory Bird Conservation Act (16 U.S.C. 715-715d, 715e, 715f-715r)  
Migratory Bird Treaty Act (16 U.S.C. 703-711)  
National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347)  
Sikes Act Improvement Act of 1997 (16 USC 670a-670o)  
Agreements to limit encroachments and other constraints on military training, testing, and operations (10 U.S.C. § 2684a)

## **C. Background**

The Parties have a common interest in the conservation and management of America's natural resources. The Parties agree that migratory birds are important components of biological diversity and that the conservation of migratory birds will both help sustain ecological systems and help meet the public demand for conservation education and outdoor recreation, such as wildlife viewing and hunting opportunities. The Parties also agree that it is important to: 1) focus on bird populations; 2) focus on habitat restoration and enhancement where actions can benefit specific ecosystems and migratory birds dependent upon them; and 3) recognize that actions taken to benefit some migratory bird populations may adversely affect other migratory bird populations.

The DoD mission is to provide for the Nation's defense. DoD's conservation program works to ensure continued access to land, air, and water resources for realistic military training and testing while ensuring that the natural and cultural resources entrusted to DoD's care are sustained in a healthy condition.

The DoD is an active participant in international bird conservation partnerships including Partners in Flight (PIF) and the North American Bird Conservation Initiative (NABCI). Military lands frequently provide some of the best remaining habitat for migratory bird species of concern, and DoD plans to continue its leadership role in bird conservation partnerships.

Through the PIF initiative, DoD works in partnership with numerous Federal and State agencies and nongovernmental organizations for the conservation of migratory and resident birds and to enhance migratory bird survival. Through DoD PIF, a list of species of concern (see Definitions) has been developed for each Bird Conservation Region where DoD facilities occur, thus improving DoD's ability to evaluate any migratory bird conservation concerns on respective DoD lands.

Integrated Natural Resources Management Plans (INRMPs) offer a coordinated approach for incorporating habitat conservation efforts into installation management.



INRMPs are a significant source of baseline conservation information and conservation initiatives used when preparing National Environmental Policy Act (NEPA) documents for all DoD management activities. This linkage helps to ensure that appropriate conservation and mitigation measures are identified in NEPA documents and committed to, when appropriate, in final decision documents.

The DoD PIF program provides a framework for incorporating landbird, shorebird and waterbird habitat management efforts into INRMPs. DoD's strategy focuses on inventorying and long-term monitoring to determine changes in migratory bird populations on DoD installations. Effective on-the-ground management may then be applied to those areas identified as having the highest conservation value. DoD's PIF goal is to support the military's training and testing mission while being a vital and supportive partner in regional, national, and international bird conservation initiatives. DoD strives to implement cooperative projects and programs on military lands to benefit the health and well-being of birds and their habitats, whenever possible. The Department of Defense implements bird inventories and monitoring programs in numerous ways including Monitoring Avian Productivity and Survivorship (MAPS) and Next Generation Radar (NEXRAD) for studying bird movements in the atmosphere. DoD also maintains an integrated pest management (IPM) program designed to reduce the use of pesticides to the minimum necessary.

The mission of the FWS is to work with others to conserve, protect, manage, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. The FWS is legally mandated to implement the provisions of the Migratory Bird Treaty Act (MBTA), which include responsibilities for population management (e.g., monitoring), habitat protection (e.g., acquisition, enhancement, and modification), international coordination, and regulation development and enforcement. The FWS also promotes migratory bird conservation through its coordination and consultation efforts with other entities.

Many FWS programs are involved in bird conservation activities, including:

1. The Division of Migratory Bird Management and Regional Migratory Birds and Habitat Programs serve as focal points in the United States for policy development and strategic planning, developing and implementing monitoring and management initiatives that help maintain healthy populations of migratory birds and their habitat, and providing continued opportunities for citizens to enjoy bird-related recreation.
2. The Division of Bird Habitat Conservation is instrumental in supporting habitat conservation partnerships through the administration of bird conservation grant programs and development of Joint Ventures that serve as major vehicles for implementing the various bird conservation plans across the country.
3. Ecological Services Field Offices across the country serve as the primary contacts for environmental reviews that include, when requested, projects developed by local military installations and DoD regional offices involving migratory bird issues. The Field Offices coordinate with the Regional Migratory Bird Offices, as necessary, during these reviews regarding permits

and overall migratory bird conservation coordination for DoD activities.

4. The Office of Law Enforcement is the principal FWS program that enforces the legal provisions of the MBTA .

The Parties agree this MOU shall be implemented to the extent permitted by law and in harmony with agency missions, subject to the availability of appropriations and budgetary limits.

**D. Responsibilities**

**1. Each Party shall:**

a. Emphasize an interdisciplinary, collaborative approach to migratory bird conservation in cooperation with other governments, State and Federal agencies, and non-federal partners within the geographic framework of the NABCI Bird Conservation Regions

b. Strive to protect, restore, enhance, and manage habitat of migratory birds, and prevent or minimize the loss or degradation of habitats on DoD-managed lands, by:

(1) Identifying and avoiding management actions that have the potential to adversely affect migratory bird populations, including breeding, migration, or wintering habitats; and by developing and implementing, as appropriate, conservation measures that would avoid or minimize the take of migratory birds or enhance the quality of the habitat used by migratory birds.;

(2) Working with partners to identify, conserve, and manage Important Bird Areas, Western Hemisphere Shorebird Reserve Network sites, and other significant bird conservation sites that occur on DoD-managed lands;

(3) Preventing or abating the pollution or detrimental alteration of the habitats used by migratory birds;

(4) Developing and integrating information on migratory birds and their habitats into outreach and education materials and activities; and

(5) Controlling the introduction, establishment, and spread of non-native plants or animals that may be harmful to migratory bird populations, as required by Executive Order 13112 on Invasive Species.

c. Work with willing landowners to prevent or minimize the loss or degradation of migratory bird habitats on lands adjacent or near military installation boundaries. This cooperative conservation may include:

(1) Participating in efforts to identify, protect, and conserve

important migratory bird habitats or other significant bird conservation sites and ecological conditions that occur in landscapes or watersheds that may be affected by activities on DoD lands;

(2) Developing and integrating information on migratory bird resources found on DoD lands into other partners' outreach and education materials and activities; and

(3) Using available authorities to enter into agreements with other Federal agencies, States, other governmental entities, and private conservation organizations to conserve and enhance habitat in a compatible manner so military operations are not restricted.

d. Promote collaborative projects such as:

(1) Developing or using existing inventory and monitoring programs, at appropriate scales, with national or regional standardized protocols, to assess the status and trends of bird populations and habitats, including migrating, breeding, and wintering birds;

(2) Designing management studies and research projects using national or regional standardized protocols and programs, such as MAPS to identify the habitat conditions needed by applicable species of concern, to understand interrelationships of co-existing species, and to evaluate the effects of management activities on habitats and populations of migratory birds;

(3) Sharing inventory, monitoring, research, and study data for breeding, migrating, and wintering bird populations and habitats in a timely fashion with national data repositories such as Breeding Bird Research and Monitoring Database (BBIRD), National Point Count Database, National Biological Information Infrastructure, and MAPS;

(4) Working in conjunction with each other and other Federal and State agencies to develop reasonable and effective conservation measures for actions that affect migratory birds and their natural habitats;

(5) Participating in or promoting the implementation of existing regional or national inventory and monitoring programs such as Breeding Bird Survey (BBS), BBIRD, Christmas Bird Counts, bird atlas projects, or game bird surveys (e.g., mid-winter waterfowl surveys) on DoD lands where practicable and feasible.

(6) Using existing partnerships and exploring opportunities for expanding and creating new partnerships to facilitate combined funding for inventory, monitoring, management studies, and research.

e. Provide training opportunities to DoD natural resources personnel on migratory bird issues, to include bird population and habitat inventorying,

monitoring methods, and management practices that avert detrimental effects and promote beneficial approaches to migratory bird conservation.

f. Participate in the Interagency Council for the Conservation of Migratory Birds to evaluate implementation of this MOU.

g. Promote migratory bird conservation internationally, as it relates to wintering, breeding and migration habitats of birds that breed on DoD lands.

h. Promote and undertake ecologically sound actions to curb the introduction in the wild of exotic or invasive species harmful to migratory birds.

2. **The Department of Defense Shall:**

a. Follow all migratory bird permitting requirements for non-military readiness activities that are subject to 50 CFR Parts 21.22 (banding or marking), 21.23 (scientific collecting), 21.26 (special Canada goose permit), 21.27 (special purposes), or 21.41 (depredation). No permit is required to take birds in accordance with Parts 21.43 - 21.47 (depredation orders).

b. Encourage incorporation of comprehensive migratory bird management objectives in the preparation of DoD planning documents, including Integrated Natural Resource Management Plans, Pest Management Plans, Installation Master Plans, NEPA analyses, and non-military readiness elements of Bird Aircraft Strike Hazard documents. Comprehensive planning efforts for migratory birds include PIF Bird Conservation Plans, the North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, and North American Waterbird Conservation Plan and associated regional plans where available.

c. Incorporate conservation measures addressed in Regional or State Bird Conservation Plans in INRMPs.

d. Consistent with imperatives of safety and security, allow the FWS and other partners reasonable access to military lands for conducting sampling or survey programs such as MAPS, BBS, BBIRD, International Shorebird Survey, and breeding bird atlases.

e. Prior to starting any activity that is likely to affect populations of migratory birds:

(1) Identify the migratory bird species likely to occur in the area of the proposed action and determine if any species of concern could be affected by the activity;

(2) Assess and document, through the project planning process, using NEPA when applicable, the effect of the proposed action on species of concern. Use best available demographic, population, or habitat

association data in the assessment of effects upon species of concern;

(3) Engage in early planning and scoping with the FWS relative to potential impacts of a proposed action, to proactively address migratory bird conservation, and to initiate appropriate actions to avoid or minimize the take of migratory birds.

f. Manage military lands and non-military readiness activities in a manner that supports migratory bird conservation, giving consideration to the following factors:

(1) Habitat protection, restoration, and enhancement. Military lands contain many important habitats for migratory birds. Some unique, sensitive, endangered and/or declining habitat types that may require special management attention include:

(a) Grasslands. Many native grassland communities require intensive management to maintain and restore vigor and species diversity and to provide habitat for migratory birds and other wildlife dependent on native grasslands. Grassland management and restoration tools include controlled burning, mowing, grazing, native species planting, and exotic plant removal. Many grasslands have evolved with a natural fire regime, and the management activities often emulate this fire regime.

(b) Riparian and wetland habitats. Military lands contain riparian and wetland habitats that may be critical for migratory birds. DoD will strive to prevent the destruction or degradation of wetlands and riparian vegetation, and also restore those habitats, when feasible, where they have been degraded.

(c) Coastal beach, salt marsh, and dune habitats. Military lands support some of the best remaining undisturbed coastal habitats. DoD will strive to protect, restore and prevent the destruction of coastal and island habitats that are important to breeding, migrating and wintering shorebirds, salt marsh land birds and colonial water birds.

(d) Longleaf pine ecosystem. Some of the best remaining examples of the longleaf pine ecosystem occur on military lands. Such habitats benefit from prescribed fire and other management measures which DoD regularly implements on thousands of acres in the Southeast. The DoD manages and will continue to manage this ecosystem to benefit and promote migratory bird conservation.

(2) Fire and fuels management practices. Fire plays an important role in shaping plant and animal communities and is a valuable tool in restoring habitats altered by decades of fire suppression. Fire management may include fire suppression, but also involves fire

prevention and fuels treatment, including prescribed burning and monitoring, to protect communities and provide for healthy ecosystems. Fire management planning efforts will consider the effects of fire management strategies on the conservation of migratory bird populations.

- (3) Invasive Species and Aquatic Nuisance Species management practices. Invasive Species and Aquatic Nuisance Species are a threat to native habitats and wildlife species throughout the United States, including military lands. Efforts to control/contain these species must take into account both the impacts from invasive species and the effects of the control efforts on migratory bird populations. Invasive Species and Aquatic Nuisance Species that can threaten migratory birds and their habitats include, but are not limited to, exotic grasses, trees and weeds, terrestrial and aquatic insects and organisms, non-native birds, and stray and feral cats.
- (4) Communications towers, utilities and energy development. Increased communications demands, changes in technology and the development of alternative energy sources result in impacts on migratory birds. DoD will review wind turbine and powerline guidelines published by FWS and the Avian Power Line Interaction Committee, respectively, and consult with FWS as needed, in considering potential effects on migratory birds of proposals for locating communications towers, powerlines or wind turbines on military lands. Construction of new utility and energy systems and associated infrastructure should be designed to avoid and minimize impacts on migratory bird populations. Existing utilities may also be considered for retrofitting to reduce impacts.
- (5) Recreation and public use. The demand for outdoor recreational opportunities on public lands is increasing. Impacts on migratory birds may occur both through direct and indirect disturbances by visitors and through agency activities associated with providing recreational opportunities to visitors and installation personnel and morale facilities (e.g., facilities construction). DoD provides access to military lands for recreation and other public use, such as Watchable Wildlife and bird watching, where such access does not compromise security and safety concerns or impact migratory birds, other species, or their habitats.

Many conservation measures have been developed to benefit a variety of migratory bird species and their associated habitats. Some of these conservation measures may be directly applicable to DoD non-military readiness related activities; however, the appropriateness and practicality of implementing any specific conservation measure may have to be determined on a case-by-case basis. The FWS will work cooperatively with DoD in providing existing conservation measures and developing new ones as needed. Examples of some conservation measures may be found at <http://www.partnersinflight.org/pubs/BMPs.htm> for landbird

species.

g. Develop and implement new and/or existing inventory and monitoring programs, at appropriate scales, using national standardized protocols, to evaluate the effectiveness of conservation measures to minimize or mitigate take of migratory birds, with emphasis on those actions that have the potential to significantly impact species of concern.

h. Advise the public of the availability of this MOU through a notice published in the Federal Register.

i. In accordance with DoD INRMP guidance, promote timely and effective review of INRMPs with respect to migratory bird issues with the FWS and respective state agencies. During the INRMP review process, evaluate and coordinate with FWS on any potential revisions to migratory bird conservation measures taken to avoid or minimize take of migratory birds.

3. **The Fish and Wildlife Service Shall:**

a. Work with DoD by providing recommendations to minimize adverse effects upon migratory birds from DoD actions.

b. Through the Division of Migratory Bird Management, maintain a Web page on permits that provides links to all offices responsible for issuing permits and permit application forms for take of migratory birds.

c. Provide essential background information to the DoD when requested to ensure sound management decisions. This may include migratory bird distributions, status, key habitats, conservation guidelines, and risk factors within each BCR. This includes updating the FWS publication of *Birds of Conservation Concern* at regular intervals so it can be reliably referenced.

d. Work to identify special migratory bird habitats (i.e., migration corridors, stop-over habitats, ecological conditions important in nesting habitats) to aid in collaborative planning.

e. Through the Ecological Service Field Office, provide to DoD, upon request, technical assistance on migratory bird species and their habitats.

f. In accordance with FWS Guidelines for Coordination with DoD and Implementation of the 1997 Sikes Act (2005), work cooperatively with DoD in the development, review and revision of INRMPs.

g. Review and comment on NEPA documents and other planning documents forwarded by military installations.

**E. It is Mutually Agreed and Understood That:**

1. This MOU will not change or alter requirements associated with the MBTA, Endangered Species Act, NEPA, Sikes Act or other statutes or

legal authority.

2. The responsibilities established by this MOU may be incorporated into existing DoD actions; however, DoD may not be able to implement some responsibilities identified in the MOU until DoD has successfully included them in formal planning processes. This MOU is intended to be implemented when new actions are initiated as well as during the initiation of new, or revisions to, INRMPs, Pest Management Plans, and non-military readiness elements of Bird Aircraft Strike Hazard plans. It does not apply to ongoing DoD actions for which a NEPA decision document was finalized prior to, or within 180 days of the date this MOU is signed.
3. This MOU in no way restricts either Party from participating in similar activities with other public or private agencies, governments, organizations, or individuals.
4. An elevation process to resolve any dispute between the Parties regarding a particular practice or activity is in place and consists of first attempting to resolve the dispute with the DoD military installation and the responsible Ecological Services Field Office. If there is no resolution at this level, either Party may elevate the issue to the appropriate officials at the applicable Military Service's Chain of Command and FWS Regional Offices. In the event that there is no resolution by these offices, the dispute may be elevated by either Party to the headquarters office of each agency.
5. This MOU is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement, contribution of funds, or transfer of anything of value between the Parties will be handled in accordance with applicable laws, regulations, and procedures, including those for government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the Parties and shall be independently authorized by appropriate statutory authority.
6. The Parties shall schedule periodic meetings to review progress and identify opportunities for advancing the principles of this MOU.
7. This MOU is intended to improve the internal management of the executive branch and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.
8. Modifications to the scope of this MOU shall be made by mutual consent of the Parties, through issuance of a written modification, signed and dated by both Parties, prior to any changes.
9. Either Party may terminate this instrument, in whole or in part, at any time before the date of expiration by providing the other Party with a written statement to that effect.



The principal contacts for this instrument are as follows:

Brian Millsap, Chief  
Division of Migratory Bird Management  
US Fish and Wildlife Service  
4401 N. Fairfax Drive  
MS4107  
Arlington, VA 22203

L. Peter Boice, Conservation Team  
Leader  
Office of the Secretary of Defense  
1225 S. Clark St.  
Suite 1500  
Arlington, VA 22202-4336

This MOU is executed as of the last date signed below and expires no later than five (5) years thereafter, at which time it is subject to review and renewal, or expiration.

**F. Definitions**

Action – a program, activity, project, official policy, rule, regulation or formal plan directly carried out by DoD, but not a military readiness activity.

Breeding Biology Research and Monitoring Database (BBIRD) - national, cooperative program that uses standardized field methodologies for studies of nesting success and habitat requirements of breeding birds (<http://pica.wru.umt.edu/BBIRD/>).

Breeding Bird Survey (BBS) – a standardized international survey that provides information on population trends of breeding birds, through volunteer observations located along randomly selected roadside routes in the United States, Canada and Mexico (<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>).

Bird Conservation Region – a geographic unit used to facilitate bird conservation actions under the North American Bird Conservation Initiative (<http://www.manomet.org/USSCP/bcrmaps.html>).

Birds of Conservation Concern – published by the FWS Division of Migratory Bird Management, refers to the list of migratory and non-migratory birds of the United States and its territories that are of conservation concern. The current version of the list Birds of Conservation Concern 2002 is available at (<http://migratorybirds.fws.gov/reports/bcc2002.pdf>).

Comprehensive Planning Efforts for Migratory Birds – includes Partners in Flight, North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, Western Hemisphere Shorebird Reserve Network, North American Waterbird Conservation Plan, and other planning efforts integrated through the North American Bird Conservation Initiative.

Conservation Measure – an action undertaken to improve the conservation status of one or more species of migratory birds. Examples include surveys and inventories, monitoring, status assessments, land acquisition or protection, habitat restoration, population manipulation, research, and outreach.

Conservation Planning – strategic and tactical planning of agency activities for the long-

term conservation of migratory birds and their habitats.

Council for the Conservation of Migratory Birds – an interagency council established by the Secretary of the Interior to oversee the implementation of Executive Order 13186.

Ecological Condition – the composition, structure, and processes of ecosystems over time and space. This includes the diversity of plant and animal communities, the productive capacity of ecological systems and species diversity, ecosystem diversity, disturbance processes, soil productivity, water quality and quantity, and air quality. Often referred to in terms of ecosystem health, which is the degree to which ecological factors and their interactions are reasonably complete and functioning for continued resilience, productivity, and renewal of the ecosystem.

Effect (adverse or beneficial) – “effects” and “impacts,” as used in this MOU are synonymous. Effects may be direct, indirect, or cumulative, and refer to effects from management actions or categories of management actions on migratory bird populations, habitats, ecological conditions and/or significant bird conservation sites.

Important Bird Areas (IBAs) – a network of sites that provide essential habitat for the long-term conservation of birds. In the United States, the IBA network is administered by the American Bird Conservancy and the National Audubon Society.  
(<http://www.audubon.org/nird/iba/>)

Integrated Natural Resources Management Plan (INRMP) – an integrated plan based, to the maximum extent practicable, on ecosystem management that shows the interrelationships of individual components of natural resources management (e.g., fish and wildlife, forestry, land management, outdoor recreation) to military mission requirements and other land use activities affecting an installation’s natural resources. INRMPs are required for all DoD installations with significant natural resources, pursuant to the Sikes Act Improvement Act.

International Shorebird Survey – a monitoring program started in 1974 to survey shorebirds (sandpipers, plovers, etc.) across the Western Hemisphere.  
(<http://www.manomet.org/programs/shorebirds>).

Management Action – an activity by a government agency that could cause a positive or negative impact on migratory bird populations or habitats. Conservation measures to mitigate potential negative effects of actions may be required.

Migratory Bird – any bird listed in 50 CFR §10.13, Code of Federal Regulations.

Military Readiness Activity – all training and operations of the Armed Forces that relate to combat, including but not limited to the adequate and realistic testing of military equipment, vehicles, weapons and sensors for proper operation and suitability for combat use.

Monitoring Avian Productivity and Survivorship (MAPS) – a program that uses the banding of birds during the breeding season to track the changes and patterns in the number of young produced and the survivorship of adults and young

(<http://www.birdpop.org/maps.htm>).

National Environmental Policy Act (NEPA) – a Federal statute that requires Federal agencies to prepare a detailed analysis of the environmental impacts of a proposed action and alternatives, and to include public involvement in the decision making process for major Federal actions significantly affecting the quality of the human environment 42 U.S.C. §4321, et. seq.

North American Bird Conservation Initiative (NABCI) – an initiative to align the avian conservation community to implement bird conservation through regionally-based, biologically driven, landscape-oriented partnerships across the North American continent. NABCI includes Federal agencies of Canada, Mexico and the United States, as well as most landbird, shorebird, waterbird, and waterfowl conservation initiatives (<http://www.nabci-us.org>).

North American Waterbird Conservation Plan – a partnership of Federal and State government agencies, non-governmental organizations, and private interests focusing on the conservation of waterbirds, primarily including marshbirds and inland, coastal, and pelagic colonial waterbirds ([www.nacwcp.org/pubs/](http://www.nacwcp.org/pubs/)). The vision of the partnership is that the distribution, diversity and abundance of populations and breeding, migratory, and nonbreeding waterbirds are sustained throughout the lands and waters of North America, Central America, and the Caribbean.

North American Waterfowl Management Plan – a partnership of Federal and State agencies, non-governmental organizations, and private interests focusing on the restoration of waterfowl populations through habitat restoration, protection, and enhancement (<http://birdhabitat.fws.gov/NAWMP/nawmphp.htm>).

Partners in Flight (PIF) – a cooperative partnership program of more than 300 partners including Federal and State government agencies, non-governmental organizations, conservation groups, foundations, universities and industry focusing on the conservation of landbirds. DoD was an original signatory to the PIF Federal Agencies' MOA. (<http://www.partnersinflight.org> and <http://www.dodpif.org>).

Species of Concern – refers to those species listed in the periodic report *Birds of Conservation Concern*; priority migratory bird species documented in the comprehensive bird conservation plans (North American Waterbird Conservation Plan, U.S. Shorebird Conservation Plan, Partners in Flight Bird Conservation Plans); species or populations of waterfowl identified as high, or moderately high, continental priority in the North American Waterfowl Management Plan; listed threatened and endangered bird species in 50 CFR. 17.11; and MBTA listed game birds below desired population sizes.

Take – as defined in 50 C.F.R. 10.12, to include pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.

U.S. Shorebird Conservation Plan – an effort undertaken by a partnership of Federal and State government agencies, as well as non-governmental and private organizations to ensure that stable and self-sustaining populations of all shorebird species are restored

and protected (<http://www.fws.gov/shorebird>).

The Parties hereto have executed this agreement as of the date shown below.

Director  
US Fish and Wildlife Service

Assistant Deputy Under Secretary of  
Defense (Environment, Safety and  
Occupational Health)  
US Department of Defense

A Dale Hall      7/7/06  
Signature                      Date

Alex Albert Beckler      7/31/06  
Signature                      Date



**INTERAGENCY AGREEMENT**  
**between the**  
**UNITED STATES FISH AND WILDLIFE SERVICE**  
**and the**  
**THE UNITED STATES ARMY**  
**for the**  
**CONSERVATION OF NATURAL RESOURCES ON**  
**ARMY CONTROLLED LANDS**

## I. BACKGROUND

The United States Army (Army) manages millions of acres of lands used for national defense purposes that include a variety of ecosystems and habitats. The United States Fish and Wildlife Service (Service) is the primary Federal office responsible for wildlife management. Sikes Act Section 101 (a) (16 U.S.C. § 670a (a)) requires that military installations prepare, in cooperation with the Service and the respective States Fish and Wildlife Agencies, an Integrated Natural Resources Management Plan (INRMP) that reflects mutual agreement on the conservation, protection, and management of fish and wildlife resources in a manner that ensures the continued availability of the lands to support the military mission. The INRMP must also, subject to safety requirements and military security, provide for the sustainable multipurpose use of natural resources (including hunting, fishing, trapping, and non-consumptive uses) and public access to the installation for such uses, although any such public access may be restricted subject to requirements necessary to ensure safety and military security. Shared interests and responsibilities provide opportunities for the Service and the Army (together, the Parties) to cooperate in ways that will enhance the management of natural resources on Federal lands and promote biodiversity. This cooperation benefits the Service in its ability to enhance and conserve fish, wildlife and plants, as well as the habitat areas that support them, and helps the Army sustain the use of the land for military purposes while implementing an environmental program that will enhance the ecosystems under its stewardship.

## II. AUTHORITY

Sikes Act Section 103a (16 U.S.C. § 670c-1) authorizes the Secretary of a military department to enter into interagency agreements with the heads of other Federal departments and agencies to provide for the maintenance and improvement of natural resources on Department of Defense (DoD) installations. Sikes Act Section 101(d)(2) requires, with regard to the implementation and enforcement of INRMPs agreed to under subsection (a), that priority be given for the procurement of such implementation and enforcement services to Federal and State agencies having responsibility for the conservation or management of fish



and wildlife. DoD, by policy letters dated June 20, 2014, "*Sikes Act Implementing Procedures - Clarifying the Role of the US. Fish and Wildlife Service and State Agencies,*" and 19 Oct 2016, "*Sikes Act Implementing Procedures - Additional Clarification on the Role of Federal and State Agencies to Implement Sikes Act Activities,*" extended the priority to services acquired by cooperative agreements and interagency agreements.

### III. PURPOSE

This Interagency Agreement (IA) establishes a cooperative conservation relationship between the Parties to support the management of natural resources on Army controlled lands. This IA will help the Army meet Federal stewardship requirements and ensure the continued availability of installation lands to support military readiness by providing a mechanism under which the Army can request reimbursable support from the Service. Such support shall not include any duties that are statutorily required to be performed by the Service. Implementation of this IA will be a cooperative effort utilizing the combined expertise of Army natural resource managers and the Service staff located at the Headquarters, Regional and Field offices. As requirements are identified, Army organizations, in collaboration with the Service, will develop a Scope of Work (SOW) to define the type and range of reimbursable assistance required. Nothing in this agreement shall be construed as an Army obligation or commitment to fund Service statutory responsibilities or those activities for which the Service otherwise receives an appropriation from Congress.

### IV. RESPONSIBILITIES OF THE PARTIES

#### A. Mutual Responsibilities.

1. The Parties will collaborate on matters relating to the conservation and management of natural resources on or affecting the lands administered by the Army, including, but not limited to: cooperative studies, surveys, research activities, law enforcement, educational programs, outreach programs, recreation, planning, and engineering. An interdisciplinary, united approach shall be promoted by the Parties to address issues relating to the management of natural resources.
2. The Parties shall cooperate in the preparation, review, update, revision, and implementation of INRMPs in accordance with the Sikes Act, and other planning documents that facilitate the implementation and execution of natural resource management activities.
3. The Parties may cooperate in conducting natural resources conservation studies on lands in support of compliance with the Endangered Species Act, National Environmental Policy Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and other applicable environmental laws.
4. The Parties may, upon mutual agreement, collaborate on matters relating to wildland fire management. Such matters may include the preparation and review of Wildland Fire Management Plans and associated Prescribed Burn Plans or other vegetative treatment plans, and the implementation of Wildland Fire Management Plans, to include wildland fire training

activities, prescribed burns or other vegetation modification treatments, and wildfire incident response. Specific examples of such collaboration may include:

- a. Establishing mutual agreement on the goals and objectives, and roles and responsibilities, for the Service employees documented in a SOW approved jointly by the Service and Army Commands, and amended periodically by mutual agreement of both Parties;
  - b. Sharing radio frequencies as necessary to facilitate prompt communication, safety and efficiency; and
  - c. Sharing equipment and following the National Wildfire Coordinating Group's National Incident Management System Wildland Fire Qualification System Guide PMS 310-1 (October 2015 or later version) and agency policies and standards in order to accept each other's qualification.
5. The Parties agree that the involvement of each agency in this IA shall not be used in any way by either agency to imply an endorsement of the other agency's actions. All advertising or other publicity regarding activities undertaken pursuant to this agreement which mentions the participation of the other agency, shall first be approved for release by both agencies, and approval may be withheld for any reason sufficient to either agency. If either agency should appear to have violated this clause, the aggrieved agency may request the immediate cessation of those actions plus further action to effectively counteract any mistaken public impressions. If the violating agency fails to comply fully with the request, the aggrieved agency may unilaterally take any action it considers necessary to correct the mistaken impression at its own expense.
  6. Nothing in this IA is intended to modify, in any manner, currently ongoing cooperative programs with other public agencies, conservation groups, or educational institutions, or modify any rights granted by treaty or otherwise to any Indian tribe, Native Hawaiians and Native Alaskans, or member thereof.
  7. All data collected or generated as a result of this IA will be shared between the Parties and will remain the property of the United States government.
  8. The Parties will conduct a joint annual review of this IA using mutually agreed upon parameters.
  9. The failure of either Party to promptly pay any reasonable costs that may be owed to the other Party pursuant to this IA may be treated as a dispute consistent with the terms of this IA.

B. United States Fish and Wildlife Service Responsibilities.

The Service shall, consistent with Service policy and within the limits of available funding provided by the Army, not including any statutory duties that are otherwise required of the Service:

1. Establish a Point of Contact (POC) for this agreement in the Service Headquarters Office.



2. Assign one or more Service employees as Service liaison to the Army. A SOW, approved by the Service and Army POC, and amended periodically by mutual agreement of both Parties will identify goals and objectives for the Service employees. Service liaison will coordinate proposals developed by the Parties to provide additional Service reimbursable staff assistance to Army installations. The Service may provide staff expertise from the offices of Fish and Aquatic Conservation (FAC), Ecological Services (ES), National Wildlife Refuge System (NWRS), NWRS-Law Enforcement, Migratory Birds, External Affairs and Science Application programs. The Service support may include, but is not limited to:
  - a. Supporting Army compliance with the Endangered Species Act, 16 U.S.C. § J 531-1544, by providing technical assistance for the conservation, protection and management of species (not to include any such action that the Service is otherwise required by statute to perform).
  - b. Working with the Army to facilitate communication and collaboration for enhanced species and habitat management, the incumbent Service liaison(s) will help disseminate information to the Army's Office of the Deputy Chief of Staff, G-9 (ODCS, G-9) and Army Commands/installations as requested on upcoming proposed threatened and endangered species listings and critical habitat designations.
  - c. Supporting Army natural resources management, in accordance with the Sikes Act (16 U.S.C. §670-6700), and DoD and Service Sikes Act guidelines. The national Service liaison(s) shall provide technical and advisory assistance for the coordination, development and implementation of INRMPS as required by the Sikes Act and Army regulations and policy guidance and Department of Defense Instructions (DoDI), and will help ensure the synchronization of INRMPS with existing Service and State Wildlife Action Plans. The Service liaison will help facilitate and track the required coordination and review of INRMPS with the appropriate Service ES Field Office(s) and Regional Office Sikes Act Coordinator(s).
  - d. Advising Army installations on opportunities for improved endangered, threatened and sensitive species coordination, cooperative conservation, and natural resources management assistance available from Service offices. The national Service liaison(s) shall facilitate cooperative conservation partnerships between Army commands and Service field stations, refuges, Programs and Regions, as appropriate. The incumbent may assist with the implementation of INRMPS by coordinating the assistance of qualified Service experts in the fields of endangered species conservation, fish and wildlife management, and other natural resource management disciplines. Upon acceptance of Army funds, the Service may facilitate reimbursable assistance to Army from Service offices nationwide as requested.
  - e. Facilitating the utilization/acceptance of the INRMPS as the document by which an installation will manage, monitor, and support its responsibilities under the Endangered Species Act, for meeting consultation requirements, making the process of species conservation simpler and more efficient.



- f. Advising Army Commands of opportunities for wildland fire management assistance from Service personnel, and provide resources as available to assist with wildfire management. Service personnel responding to hazard incidents or wildfires on Army installations shall meet the training and qualification requirements set forth in the National Wildfire Coordinating Group's National Incident Management System Wildland Fire Qualification System Guide, PMS 310-J (October 2015 or later version) and agency policies and standards for the positions they will occupy.

#### C. United States Army Responsibilities.

The Army will, consistent with DoD policy and within limitations of appropriations:

1. Establish a POC to administer and facilitate Service assistance for Army Natural Resource Program needs at the ODCS, G-9 and Army Commands.
2. Subject to Army fiscal law guidelines, reimburse the appropriate Service organization for costs incurred by the Service for support provided to Army for the conservation and management of fish and wildlife resources.
3. Provide workspace, computer support, clerical support, security clearance and appropriate access privileges for Service employees assigned or detailed to Army offices.
4. Recognize Service personnel operating under this agreement as agents of the Federal government working in the best interest of the Army for decision-making in wildland fire activities and are delegated authority to work under procedures outlined in Army Regulations and other DoD or Army guidance. The Army will provide Service with an approved Integrated Wildland Fire Management Plan/Prescribed Burn Plan for all controlled burns conducted on Army installations requesting Service support.
5. Recognize Service personnel operating under this agreement as Federal government employees working in the best interest of the Army for decision making in natural/biological resource planning and management, safety, and compliance activities associated with the Endangered Species Act, National Environmental Policy Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act and other applicable environmental laws.

#### V. FINANCIAL ADMINISTRATION

##### A. Availability of Funds.

1. This agreement does not document the obligation of funds between the Parties. A funding agreement for interagency transfer of funds will be utilized for any obligation of funds in support of this agreement. The obligation of funds by the Army is subject to the availability of appropriated funds pursuant to the DoD Financial Management Regulation and any applicable Army fiscal law guidelines.

2. Except as agreed upon, in a separate document for reimbursable support, each party is responsible for all costs of its personnel, including pay and benefits, support, and travel. Each party is responsible for supervision and management of its personnel.
3. The Army agrees to seek sufficient funds to reimburse the Service for support activities identified in an agreed upon SOW. The Army will submit an annual request for funds through the Army budgetary process. The Parties will work to create a multi-year plan with the understanding that funds may not be available during the year of execution.

B. Requesting Support under this Agreement.

1. The Parties agree that this agreement will serve as a means for Army installations, Commands, or Headquarters Department of the Army (HQDA) to acquire direct technical assistance from Service personnel for the management of natural resources on Army installations. Service technical assistance will be requested by Army installations; Army Commands, Subordinate Commands, Direct Reporting Units, and Service Component Commands (hereafter referred to as Command); or HQDA on an as needed basis. Installations, Commands or HQDA may identify to the Service field offices, regions, or Service headquarters the proposed level of effort and funding programmed for out-years to provide a basis for potential Service workload planning. Any such information regarding programmed out-year funding, however, is for planning purposes only. All Army requests for direct technical assistance from the Service are subject to the availability of funds and as such, there is no implied guarantee that planned or programmed actions will be funded. (Note: Under 16 U.S.C. 670c-1, direct technical assistance services must be for the maintenance and improvement of natural resources or to benefit natural and historical research on an installation.)
2. Any Army installation, Command or HQDA may request Service direct technical assistance under this agreement. The Army organization requesting technical assistance and the supporting Service office will develop a draft Scope of Work (SOW), project budget (for the estimated cost of assistance to be provided for a period not to exceed 18 months), and funding agreement, describing the requested Service technical assistance prior to any services being rendered. The draft SOW, project budget, and funding agreement will be forwarded by the installation or Command directly to the appropriate Service field office or region for coordination and review. HQDA will submit their requests directly to the Service's HQDA Liaison. All requests for technical assistance will be coordinated and reviewed by the Service's HQDA Liaison prior to their submission to Service Headquarters.
3. In consultation with the affected Service region, Service Headquarters will promptly review and may approve, or disapprove, the draft SOW, budget, and funding agreement, with or without modifications, for all proposed projects, prior to its execution by the Army organization requesting technical assistance and the supporting Service office. In general, once the request and supporting documents are submitted to Service Headquarters, it is anticipated that this review will be completed within two weeks, unless the proposed project poses significant challenges that cannot be readily resolved within that timeframe.



4. The Service HQDA Liaison will work with Service field offices and regions to monitor project status and completion. The Service HQDA Liaison will develop an Annual Report to be provided to the Service and HQDA, ODCS, G-9 summarizing the Service's annual support assistance provided to HQDA, Army Commands and installations, the status of approved projects and funding, project completion results, and future planned work under this agreement. The Annual Report prepared by the Service Liaison will be provided to ODCS, G-9 by 31 January of each year.
5. Subject to Army fiscal law, as agreed in advance in writing by the Army, the funding document will reimburse the Service for the total cost of assistance, including staff salaries, benefits, travel, administrative overhead, and other direct and indirect costs. All government furnished equipment necessary to complete each Service technical assistance action will be provided by the Service. Appropriate interagency funding transfers for liaison positions with duty station at ODCS, G-9 or Army Commands/ installations may also reimburse the Service for costs for transfer of station (subject to approval, as agreed to in advance in writing by the Army, (ODCS, G-9). In accordance with 16 U.S.C. § 670c- 1(b), funds obligated by the Army and transmitted to the Service, may be obligated to cover the cost of goods and services specified in an agreement during any 18 month period, without regard to whether the agreement crosses fiscal years.
6. Army will consider funds obligated upon the Service acceptance of the funding document.

#### C. Billing.

1. The Service Program or office accepting the funding agreement for reimbursable services shall bill the Army by means of an SF 1080 or, if available, via Intra-Governmental Payment and Collection system (IPAC), for any effort completed during the previous 90 days or less. Each billing statement will include the project title, project number and the applicable funding agreement number. Payment requests will be submitted through the Defense Finance and Accounting Service (DFAS) office designated in the funding agreement.
2. Allowable costs under this IA will include all direct and indirect costs incurred by the Service for completed work within the scope of this IA. The Service will maintain a record of costs incurred.
  - The Service Program or office performing reimbursable services for Army shall provide the Army with cost documentation, as requested, which will reflect an annual reconciliation of costs and expenditures incurred by the Service for each task.
  - The Service indirect cost rate for this agreement will be the current and applicable Service overhead cost rate.
  - If there are any discrepancies regarding the reimbursable costs associated with this Agreement, the Parties will resolve any issues.

#### VI. GENERAL PROVISIONS

- A. Points of Contact. The following POCs will be used by the Parties to communicate in the implementation of this IA. Each Party may change its POC upon reasonable notice to the other Party.
1. United States Fish and Wildlife Service. The Service Assistant Director for the Fish and Aquatic Conservation Program, in coordination with the Chief for the National Wildlife Refuge System, shall oversee the implementation of this IA for the Service.  
  
Assistant Director, Fish and Aquatic Conservation Program, (202) 208-3517.  
  
Alternate POC: Service HQDA Liaison to the Army, (703) 695-6969.
  2. United States Army. The Office of the Deputy Assistant Secretary of the Army, Environment, Safety and Occupational Health (DASA (ESOH)), shall be the office of primary responsibility for implementation of this IA in the Army.  
  
Director for Environmental Quality, Office of the Assistant Secretary of the Army for Installations, Energy and Environment, 110 Army Pentagon, (571) 256-7822.  
  
Alternate POC, Assistant for Conservation, Office of the Assistant Secretary of the Army for Installations, Energy and Environment, 110 Army Pentagon, (703) 697-3937.
- B. Correspondence. All correspondence to be sent and notices to be given pursuant to this IA will be addressed, if to the United States Fish and Wildlife Service, Assistant Director, Fish and Aquatic Conservation Program, 5275 Leesburg Pike, Falls Church, VA 22041-3803.  
  
And, if to the United States Army, Deputy Assistant Secretary of the Army, Environment, Safety, and Occupational Health, 600 Army Pentagon, Room 5C140, Washington DC 20310-0600.
- C. Review of Agreement. This IA will be reviewed annually on or around the anniversary of its effective date for financial impacts and triennially in its entirety.
- D. Modification of Agreement. This IA may be modified at any time by the written agreement of the Parties, duly signed by their authorized representatives. Correspondence between the Parties may be considered part of this IA when appropriate, and countersigned by the receiver and returned to the sending party.
- E. Transferability. This Agreement is not transferable except with the written consent of the Parties.
- F. Entire Agreement. It is expressly understood and agreed that this IA embodies the entire agreement between the Parties regarding the IA's subject matter.
- G. No Third-Party Rights. Nothing in this IA, express or implied, is intended to or shall confer upon any third-party any right, benefit or remedy of any nature whatsoever under or by reason of this IA.

H. This IA will supersede any other IAs, upon their expiration, between the Army and the Service addressing the activities covered in this IA.

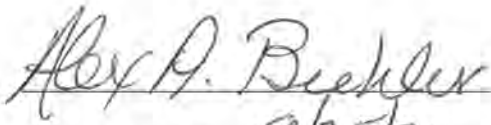
I. Disputes. Any disputes relating to this IA will, subject to any applicable law, Executive Order, Directive, or Instruction, be resolved by consultation between the Parties or in accordance with DoDI 4000.19.

J. Termination of Agreement.

1. This IA may be terminated by either Party with 180 days' written notice of termination or immediately upon the joint written consent of both Parties.
2. The Army will notify the Service at least 90 days in advance if funding to support salary and benefits of Service personnel will be terminated. The Service will return any unused funds to Army upon termination.

#### VII. EFFECTIVE DATE

This IA becomes effective beginning on the day after the last Party signs, and shall be valid unless terminated in accordance with Section VI. J.



Alex A. Beehler 9/25/20  
Assistant Secretary of the Army  
Installations, Energy and Environment



Aurelia Skipwith 9/25/2020  
Director  
U.S. Fish and Wildlife Service



## **Luetters, Susan T CTR USARMY 88 RD (USA)**

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**From:** Prenzlow - DNR, Dan <dan.prenzlow@state.co.us>  
**Sent:** Thursday, August 26, 2021 12:47 PM  
**To:** Meighan, Duane L CIV USARMY 88 RD (USA); Luetters, Susan T CTR USARMY 88 RD (USA)  
**Cc:** Mark Leslie; Schwab - DNR, Shannon  
**Subject:** [Non-DoD Source] INRMP comments from CPW  
**Attachments:** Scanned from a Xerox Multifunction Printer - 2021-08-26T114202.326.pdf

Dear Mr. Meighan and Ms. Luetters,

Thank you for the opportunity to review U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP as a stakeholder in the management of natural resources for this process. Our field staff have reviewed the document and determined that Colorado Parks and Wildlife has "No Comments" on the draft document.

I have also attached and signed the approving official page.

Sincerely, Dan

Dan Prenzlow  
Director, Parks & Wildlife



**LIVE LIFE  
OUTSIDE**

Phone: 303.291.7710  
6060 Broadway, Denver, CO 80216





REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)					
		Jordan Hofmeier, Kansas Department of Wildlife and Parks					
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review							
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:		
		X	Draft		Final		
Item No.	Page #/ Line #	COMMENTS				Preparer	Preparer Comment/Justification
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				A - Accept	C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
		R – Reject w/ comment					
1	MS-4/3-5	Is there potential for small-scale habitat work to be completed at some of these sites that would require little maintenance once established? (i.e. pollinator plots/plantings, bioswales, etc.)				A	
2	MS-21/8-11	Kansas State Wildlife Action Plan (2016) <a href="https://ksoutdoors.com/Services/Kansas-SWAP">https://ksoutdoors.com/Services/Kansas-SWAP</a>				A	
3	3-7/26	Replace with “Kansas State Wildlife Action Plan”				A	
4	General	Replace all references to with Kansas Department of Wildlife and Parks to reflect recent agency reorganization. Likewise, KDWP should be replaced with KDWP.				A	
5	3-36	Fauna Data Table – there are no records of Rainbow Darter in Kansas, most likely Orangethroat Darter ( <i>Etheostoma spectabile</i> ).				A	
6	General	For your planning and management use, additional fish community data from KDWP stream samples (1996, 2001) at Sunflower LTA is provided in attached table.				A	
7	3-36/14-15	Redbelly Snake and Smooth Earth Snake have been downlisted from Threatened to Species In Need of Conservation.				A	
8	General	Impacts to state-listed species are unlikely within the Kansas locations for the 88 <sup>th</sup> Readiness Division, but county lists of state-listed species for site-specific planning are available at: <a href="https://ksoutdoors.com/Services/Threatened-and-Endangered-Wildlife/List-of-all-Kansas-Counties">https://ksoutdoors.com/Services/Threatened-and-Endangered-Wildlife/List-of-all-Kansas-Counties</a> Environmental reviews for potential impacts to state-listed species can be submitted to KDWP Ecological Services Section (KDWP.ess@ks.gov)				A	
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FWP.MT.GOV

THE **OUTSIDE** IS IN US ALL.

Director's Office  
PO Box 200701  
Helena, MT 59620-0701  
(406) 444-3186  
Fax (406) 444-4952  
Ref: DO184-21  
June 21, 2021

Ms. Susan Luetters  
Natural Resource Manager  
88<sup>th</sup> Readiness Division, US Army Reserves  
506 Roeder Circle  
Fort Snelling, MT 55111

Dear Ms. Luetters:

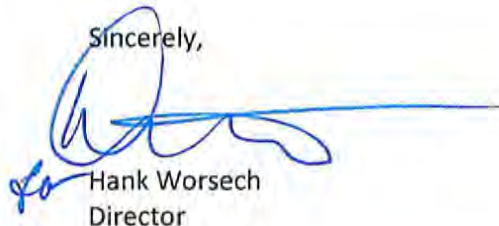
Thank you for the opportunity to review the final draft of the 2021-2025 update of the Integrated Natural Resource Plan for Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming for the 88<sup>th</sup> Readiness Division of the U.S. Army Reserves.

Montana Fish, Wildlife and Parks has no concerns about the plans for the three installations in the state, concurs with your assessment that they are of low natural resource significance, and appreciates your consultation with our State Wildlife Action Plan or SWAP.

Please contact Jennifer Bond Hersom in the Director's Office at (406) 444-9089 to facilitate obtaining my signature of endorsement.

We at the department fully support the mission of the U.S. Army Reserves and thank you for your service to our country.

Sincerely,



Hank Worsech  
Director

C: Barb Beck  
Linnaea Schroeer



REVIEW COMMENTS		REVIEWERS:					
		Lindze Small – Natural Resources Coordinator - USARC					
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP							
LOCATION:							
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:		
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.	
REVIEW MEETING							
		X	Draft	Final			
Item No.	Page #/ Line #	COMMENTS w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.					
1	5, Line 31	Suggestion to include Mr. LTC Stewart’s name and contract information as the first signatory.			M	No requirement for ARIMD to sign the INRMP. ARIMD review is required and LTC Stewart will be added as an ARIMD reviewer and to the distribution list.	
2	5, Line 34	Suggestion to remove ARIMD and instead to add: USARC G3/5/7 Engineers per new structure.			A		
3	5, Line 39	Request to remove this contact number, as this is my personal cell phone number.			A	Please provide work phone number	910-570-8638
4	7, Line 14	Suggestion to change 'are' to: 'is done by'.			A		
5	8, Line 54	Please add a period after the word 'vehicles'.			A		
6	8, Line 57	Please add a period after the word 'properties'.			A		
7	8, Line 61	Please add a period after this parenthesis.			A		
8	13, Title (First Line)	Is this section title intentionally highlighted? Suggestion to remove highlighting for consistency with formatting.			M	The highlighting should not have been there.	
9	15, Emporia ARC Line Section – Description Column	Please include a period after the word 'lease'.			W	That is not a sentence, and therefore does not require a period.	
10	16, Ralph B Praeger ARC Section – Description Column	Please include a period after the word 'lease'.			W	That is not a sentence, and therefore does not require a period.	

REVIEW COMMENTS		REVIEWERS:					
		Lindze Small – Natural Resources Coordinator - USARC					
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP							
LOCATION:							
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:		
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.	
REVIEW MEETING							
		X	Draft	Final			
Item No.	Page #/ Line #	COMMENTS w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.					
11	16, Osage City ARC Section – Description Column	Please include a period after the word 'lease'.				W	That is not a sentence, and therefore does not require a period.
12	16, Parsons ARC Section – Description Column	Please include a period after the word 'lease'.				W	That is not a sentence, and therefore does not require a period.
13	16, Pittsburg ARC Section – Description Column	Please include a period after the word 'lease'.				W	That is not a sentence, and therefore does not require a period.
14	21, Line 38	Please add a period after the word 'LTA'.				A	
15	22, Line 7	Please add a period after the word 'environment'.				A	
16	22, Line 30	Please add a period after the word 'funding'.				A	
17	68, Line 28	Please remove the extra period before the word 'These'.				A	
18	69, Line 23	Suggestion to include source data/linkage directly to the EPA website in lieu of Wikipedia and/or other third-party sources. One such example is available here on the EPA website directly: <a href="https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states">https://www.epa.gov/eco-research/level-iii-and-iv-ecoregions-continental-united-states</a>				M	Both will be included as the Wikipedia web site offers up more of an explanation as to the origin of the data.
19	122, Line 15	The interior least tern was officially delisted on 12 Jan 2021. Please remove from the list of applicable species.				A	
20	154, Line 13	The formatting for this acronym varies in color, suggestion to keep the formatting consistent throughout headers.				A	

REVIEW COMMENTS		REVIEWERS:					
		Lindze Small – Natural Resources Coordinator - USARC					
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP							
LOCATION:							
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:		
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.	
REVIEW MEETING							
		X	Draft	Final			
Item No.	Page #/ Line #	COMMENTS					
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.					
21	154, Line 13 onwards (i.e. Section reference)	As recently discussed, the solicitor's M-opinion of the MBTA was recently rescinded on 8 March 2021. Please ensure that subsequent plans and policies are consistent with these findings.			A	Agreed, currently there is no mention of the M-Opinion in the INRMP, though we are consistent with the MBTA and current policy. We look forward to additional guidance regarding the M-Opinion and the ensuing implementation from ARIMD.	ARIMD will continue to coordinate internally and externally regarding appropriate advising for this policy change and will provide further clarification to the 88 <sup>th</sup> and other Installations ASAP.
22	162, Line 26	Note, please ensure that Wildland Fire Management policies and plans adhere to the 15 March 2021 revised Wildland Fire Guidance Memorandum.			A		
23	164, Line 19	As of the most recent date of access, 13 April 2021, this link did not allow me to access this. Please replace/remove as appropriate.			A		
24	168, Line 4	As of the most recent date of access, 13 April 2021, this link did not allow me to access this. Please replace/remove as appropriate.			A		

REVIEW COMMENTS		REVIEWERS:				
		Lindze Small – Natural Resources Coordinator - USARC				
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP						
LOCATION:						
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:	
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
REVIEW MEETING						
		X	Draft	Final		
Item No.	Page #/ Line #	COMMENTS				
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				
25	168, Line 13	Please remove this extra period after the word ‘Time’.			A	
26	178, Line 23	Please add a period to the end of this sentence.			A	
27	184, Line 28				A	Included the EPA website address
28	185, Line 2 onwards (I.e. referencing section)	As noted above, Suggestion to add Mr. LTC Stewart to Distribution List.			A	
29	189, Line 22	As of the most recent date of access, 13 April 2021, this link did not allow me to access this. Please replace/remove as appropriate.			A	
30	199, Listed Species Section	The interior least tern was officially delisted on 12 Jan 2021. Please remove from the list of applicable species.			A	
31	207, Line 25	Please add a period to the end of this sentence.			A	
32	208, Line 28	Please add a period to the end of this sentence.			A	
33	265, Line 29	As noted above, the interior least stern was officially delisted on 12 Jan 2021. Please remove from the list of applicable species.			A	
34	292, Line 5	As noted above, the interior least stern was officially delisted on 12 Jan 2021. Please remove from the list of applicable species.			A	
35	295, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.

<b>REVIEW COMMENTS</b>		REVIEWERS:					
		<b>Lindze Small – Natural Resources Coordinator - USARC</b>					
<b>PROJECT: 88<sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP</b>							
LOCATION:							
<b>PROJECT MANAGER:</b> Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:		
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.	
REVIEW MEETING							
		<input checked="" type="checkbox"/>	Draft				Final
Item No.	Page #/ Line #	<b>COMMENTS</b> w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.					
36	296, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.				M	In order to make the tables fit appropriately there may be some minor column width variation.
37	297, Per Unit Column	Suggestion to modify formatting of this column so that the numbers are less compressed/more legible.				A	
38	299, Brief Description Column, Second Project Row	Please add a period after the word 'benefits'.				A	
39	299, Brief Description Column, Third Project Row	Please add a period after the word 'training'.				A	
40	301, Brief Description Column, Second Project Row	Please add a period after '2023'.				A	



REVIEW COMMENTS		REVIEWERS:				
		Lindze Small – Natural Resources Coordinator - USARC				
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP						
LOCATION:						
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:	
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
REVIEW MEETING						
		X	Draft	Final		
Item No.	Page #/ Line #	COMMENTS				
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				
41	301, Brief Description Column, Fourth Project Row	Please add a period after the word 'community'.			A	
42	301, Brief Description Column, Seventh Project Row	Please add a period after the word 'strategies'.			A	
43	301, Brief Description Column, Eighth Project Row	Please add a period after the word 'RD'.			A	
44	302, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
45	303, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
46	305, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.

REVIEW COMMENTS		REVIEWERS:				
		Lindze Small – Natural Resources Coordinator - USARC				
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP						
LOCATION:						
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:	
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
REVIEW MEETING						
		X	Draft	Final		
Item No.	Page #/ Line #	COMMENTS				
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				
47	306, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
48	306, Brief Description Column, First Project	Suggestion to include period after 'RD'.			A	
49	306, Brief Description Column, Second Project	Suggestion to remove comma and replace with a period after 'AOR'.			A	
50	307, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
51	308, First Project	Should Cost and Per Unit Columns be empty herein?			M	.\$0.00 was added for consistency.
51	310, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
52	311, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.

REVIEW COMMENTS		REVIEWERS:				
		Lindze Small – Natural Resources Coordinator - USARC				
PROJECT: 88 <sup>th</sup> RD 2021-2025 USFWS Interior Region 5/7 (Legacy Region 6) INRMP						
LOCATION:						
PROJECT MANAGER: Duane Meighan/Susan Luetters		<b>Document</b>			Action taken on comment by:	
IJO/SPEC/PKG:					Preparer A – Accept M – Accept w/ Modification W-Withdraw	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
REVIEW MEETING						
		X	Draft	Final		
Item No.	Page #/ Line #	COMMENTS				
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				
53	312, Salaries and Training Cells	Please fill out Per Unit and Status as needed i.e. per annum/on-going, etc.			A	
54	313, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
55	314, Fifth Project, Per Unit Column	Formatting (capitalization) is not consistent in this cell.			A	
56	315, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
57	319, Cost Column	Please make cells consistent with formatting for other cells in the table. Some cells have varying alignment.			M	In order to make the tables fit appropriately there may be some minor column width variation.
58	319, Fourth Project Description	Text color/formatting varies in this text box.			A	
59	319, Fifth Project Description	Text color/formatting varies in this text box.			A	
60	325, MOU Section 1	As of the most recent date of access, 13 April 2021, this link did not allow me to access this. Please replace/remove as appropriate.			A	
61	325, MOU Section 2	As of the most recent date of access, 13 April 2021, this link did not allow me to access this. Please replace/remove as appropriate.			A	

**Luetters, Susan T CTR USARMY 88 RD (USA)**

---

**From:** Schumacher, John D. <jdschumacher@nd.gov>  
**Sent:** Wednesday, August 4, 2021 1:03 PM  
**To:** Luetters, Susan T CTR USARMY 88 RD (USA)  
**Subject:** RE: [Non-DoD Source] RE: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP  
**Attachments:** 88RD\_INRMP\_21-25\_Sig.pdf

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Ms. Luetters,

Attached is the signature page as requested.

John

---

**From:** Luetters, Susan T CTR USARMY 88 RD (USA) <susan.t.luetters.ctr@mail.mil>  
**Sent:** Wednesday, August 4, 2021 10:44  
**To:** Schumacher, John D. <jdschumacher@nd.gov>  
**Cc:** Meighan, Duane L CIV USARMY 88 RD (USA) <duane.l.meighan.civ@mail.mil>  
**Subject:** RE: [Non-DoD Source] RE: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

**\*\*\*\*\* CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. **\*\*\*\*\***

Good Morning Mr. Schumacher,

When we received your email of no comment on the U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP, which we really appreciate, I realized that we will also need the signature of the Director Scott Peterson. I have attached all of the signature pages for continuity when requesting his signature, you only need to scan in and email back the page with his signature.

I really appreciate your help with this. If there are any questions or problems please let me know.

Best,

Susan T. Luetters  
Natural Resources Manager  
Contractor (Versar)  
Phone: 612.467.7584

Mobile: 907.317.2484

Email: susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil >

**From:** Schumacher, John D. <jdschumacher@nd.gov < Caution-mailto:jdschumacher@nd.gov > >

**Sent:** Wednesday, June 23, 2021 12:21 PM

**To:** Meighan, Duane L CIV USARMY 88 RD (USA) <duane.l.meighan.civ@mail.mil < Caution-mailto:duane.l.meighan.civ@mail.mil > >; Luetters, Susan T CTR USARMY 88 RD (USA) <susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil > >

**Subject:** [Non-DoD Source] RE: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Duane Meighan  
88<sup>th</sup> Readiness Division

RE: Draft Final – 2021-2025 US Fish and Wildlife Service Interior Regions 5/7 Integrated Natural Resource Plan

The North Dakota Game and Fish Department has reviewed this document for wildlife concerns. We do not believe it will have significant adverse effects on wildlife or wildlife habitat based on the information provided.

**J.D. Schumacher**

*Resource Biologist*

701.328.6321 • jdschumacher@nd.gov < Caution-mailto:jdschumacher@nd.gov > < Caution-Caution-mailto:jdschumacher@nd.gov > • [gf.nd.gov](https://gf.nd.gov/) < Caution-Caution-https://gf.nd.gov/ >



---

**From:** Luetters, Susan T CTR USARMY 88 RD (USA) <susan.t.luetters.ctr@mail.mil < Caution-Caution-mailto:susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil %3c Caution-Caution-mailto:susan.t.luetters.ctr@mail.mil > > >

**Sent:** Friday, May 28, 2021 1:39:07 PM

**To:** Steinwand, Terry R. <tsteinwa@nd.gov < Caution-Caution-mailto:tsteinwa@nd.gov < Caution-mailto:tsteinwa@nd.gov %3c Caution-Caution-mailto:tsteinwa@nd.gov > > >

**Cc:** Meighan, Duane L CIV USARMY 88 RD (USA) <duane.l.meighan.civ@mail.mil < Caution-Caution-mailto:duane.l.meighan.civ@mail.mil < Caution-mailto:duane.l.meighan.civ@mail.mil %3c Caution-Caution-mailto:duane.l.meighan.civ@mail.mil > > >; Jeff Underwood (Jeff\_Underwood@fws.gov < Caution-mailto:Jeff\_Underwood@fws.gov > < Caution-Caution-mailto:Jeff\_Underwood@fws.gov > ) <Jeff\_Underwood@fws.gov < Caution-Caution-mailto:Jeff\_Underwood@fws.gov < Caution-

mailto:Jeff\_Underwood@fws.gov %3c Caution-Caution-mailto:Jeff\_Underwood@fws.gov >>>; Underwood, Jeffrey L CIV  
USARMY HQDA DCS G-9 (USA) <jeffrey.l.underwood12.civ@mail.mil < Caution-Caution-  
mailto:jeffrey.l.underwood12.civ@mail.mil < Caution-mailto:jeffrey.l.underwood12.civ@mail.mil %3c Caution-Caution-  
mailto:jeffrey.l.underwood12.civ@mail.mil >>>; Pam Sponholtz (Pamela\_Sponholtz@fws.gov < Caution-  
mailto:Pamela\_Sponholtz@fws.gov > < Caution-Caution-mailto:Pamela\_Sponholtz@fws.gov > )  
<Pamela\_Sponholtz@fws.gov < Caution-Caution-mailto:Pamela\_Sponholtz@fws.gov < Caution-  
mailto:Pamela\_Sponholtz@fws.gov %3c Caution-Caution-mailto:Pamela\_Sponholtz@fws.gov >>>  
**Subject:** FW: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

\*\*\*\*\* CAUTION: This email originated from an outside source. Do not click links or open attachments unless you know  
they are safe. \*\*\*\*\*

The INRMP for review is attached.

Best,

Susan T. Luetters  
Natural Resources Manager  
Contractor (Versar)  
Phone: 612.467.7584  
Mobile: 907.317.2484  
Email: susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil > < Caution-Caution-  
mailto:susan.t.luetters.ctr@mail.mil >

-----Original Message-----

From: Luetters, Susan T CTR USARMY 88 RD (USA)  
Sent: Friday, May 28, 2021 11:19 AM  
To: 'tsteinwa@nd.gov' <tsteinwa@nd.gov < Caution-Caution-mailto:tsteinwa@nd.gov < Caution-  
mailto:tsteinwa@nd.gov %3c Caution-Caution-mailto:tsteinwa@nd.gov >>>  
Cc: USARMY 88 RSC Meighan (US) (duane.l.meighan.civ@mail.mil < Caution-  
mailto:duane.l.meighan.civ@mail.mil > < Caution-Caution-mailto:duane.l.meighan.civ@mail.mil > )  
<duane.l.meighan.civ@mail.mil < Caution-Caution-mailto:duane.l.meighan.civ@mail.mil < Caution-  
mailto:duane.l.meighan.civ@mail.mil %3c Caution-Caution-mailto:duane.l.meighan.civ@mail.mil >>>  
Subject: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

Director Steinwand,

Attached please find the U.S. Army Reserves 88th Readiness Division USFWS Region 5/7 - 2021 -2025 Integrated Natural  
Resource Plan (INRMP) for our sites located in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah,  
and Wyoming along with the cover letter and Attachments A (included with the cover letter PDF) and Attachment B  
(Word doc.).

If there are any questions or problems with any of the three attached documents, please contact me by phone on the  
mobile number given below or via email.

Best,

Susan T. Luetters

Natural Resources Manager  
Contractor (Versar)  
88th Readiness Division  
Conservation Branch  
506 Roeder Circle  
Ft. Snelling, 55111  
Phone: 612.467.7584  
Mobile: 907.317.2484  
Email: susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil > < Caution-Caution-mailto:susan.t.luetters.ctr@mail.mil >

<b>REVIEW COMMENTS</b>		REVIEWERS: (Name and Agency affiliation)					
		<b>Melissa Marinovich – Nebraska Game and Parks Commission</b>					
<b>PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review</b>							
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:		
		X	Draft		Final		
Item No.	Page #/ Line #	COMMENTS				Preparer	Preparer Comment/Justification
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				A - Accept	C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
		W- Withdraw				R - Reject	
		w/ comment					
1	3-40/Line 13	Beginning of the second sentence on this line is missing a “T” for the first word.				A	
2	3-40/Line 14	Capitalize the beginning of the second sentence in this line.				A	
3	3-44/Lines 6-9	Recommend removal of the line “No invasive-exotic species were documented in this community.” In previous lines and in the following “Invasive Species” paragraph, it documents that invasive-exotic species, such as Siberian Elm, White Mulberry, and Osage Orange were documented.				A	
4	4-33/Line 30	States “Salt Tiger Beetle” – should be “Salt Creek Tiger Beetle”				A	
5							
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18							
19							
20							





## **Luetters, Susan T CTR USARMY 88 RD (USA)**

---

**From:** Kotilnek, Jon <Jon.Kotilnek@state.sd.us>  
**Sent:** Wednesday, August 11, 2021 10:54 AM  
**To:** Luetters, Susan T CTR USARMY 88 RD (USA)  
**Subject:** [Non-DoD Source] FW: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP  
**Attachments:** DOC080321-08032021165414.pdf

Susan,

Attached is Secretary Robling's signature page and you can see from below that the Dept has no comments. Is this all you need from us? Thanks.

Very Respectfully,

Jon Kotilnek

Jon Kotilnek | Senior Staff Attorney  
South Dakota Game, Fish and Parks  
523 East Capitol Avenue | Pierre, SD 57501  
605.773.2750 | Jon.Kotilnek@state.sd.us

Confidentiality Notice: The message and any attachments may be confidential or privileged and are intended only for the individual or entity identified above as the addressee. If you are not the addressee, or if this message has been addressed to you in error, you are not authorized to read, copy or distribute this message or any attachments, and we ask that you please delete this message and any attachments and notify the sender by return e-mail or by phone at 605-773-2750. Delivery of this message and any attachments to any person other than the intended recipient(s) is not intended in any way to waive confidentiality or privilege. All personal messages express views only of the sender, which are not to be attributed to the South Dakota Game, Fish and Parks, and may not be copied or distributed without this statement. The confidentiality of the information contained in this message is protected by federal and state law.

-----Original Message-----

**From:** Robling, Kevin (GFP) <Kevin.Robling@state.sd.us>  
**Sent:** Monday, August 9, 2021 4:43 PM  
**To:** Kotilnek, Jon <Jon.Kotilnek@state.sd.us>  
**Cc:** Comes, Rachel <Rachel.Comes@state.sd.us>  
**Subject:** FW: [EXT] U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

Jon,

I talked with Susan and please go ahead and apply my signature. The Dept. has no comments.

Thanks!

Kevin

-----Original Message-----

From: Luetters, Susan T CTR USARMY 88 RD (USA) <susan.t.luetters.ctr@mail.mil>

Sent: Friday, May 28, 2021 1:36 PM

To: Robling, Kevin (GFP) <Kevin.Robling@state.sd.us>

Cc: Meighan, Duane L CIV USARMY 88 RD (USA) <duane.l.meighan.civ@mail.mil>; Jeff Underwood

(Jeff\_Underwood@fws.gov) <Jeff\_Underwood@fws.gov>; Underwood, Jeffrey L CIV USARMY HQDA DCS G-9 (USA)

<jeffrey.l.underwood12.civ@mail.mil>; Pam Sponholtz (Pamela\_Sponholtz@fws.gov) <Pamela\_Sponholtz@fws.gov>

Subject: FW: [EXT] U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

The INRMP for review is attached.

Best,

Susan T. Luetters

Natural Resources Manager

Contractor (Versar)

Phone: 612.467.7584

Mobile: 907.317.2484

Email: susan.t.luetters.ctr@mail.mil

-----Original Message-----

From: Luetters, Susan T CTR USARMY 88 RD (USA)

Sent: Friday, May 28, 2021 11:23 AM

To: 'kevin.robling@state.sd.us' <kevin.robling@state.sd.us>

Cc: USARMY 88 RSC Meighan (US) (duane.l.meighan.civ@mail.mil) <duane.l.meighan.civ@mail.mil>

Subject: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

Director Robling,

Attached please find the U.S. Army Reserves 88th Readiness Division USFWS Region 5/7 - 2021 -2025 Integrated Natural Resource Plan (INRMP) for our sites located in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming along with the cover letter and Attachments A (included with the cover letter PDF) and Attachment B (Word doc.).

If there are any questions or problems with any of the three attached documents, please contact me by phone on the mobile number given below or via email.

Best,

Susan T. Luetters

Natural Resources Manager

Contractor (Versar)

88th Readiness Division

Conservation Branch

506 Roeder Circle

Ft. Snelling, 55111

Phone: 612.467.7584

Mobile: 907.317.2484

Email: susan.t.luetters.ctr@mail.mil

**Luetters, Susan T CTR USARMY 88 RD (USA)**

---

**From:** Eric Edgley <ericedgley@utah.gov>  
**Sent:** Monday, August 16, 2021 12:56 PM  
**To:** Luetters, Susan T CTR USARMY 88 RD (USA)  
**Subject:** [Non-DoD Source] Fwd: DRAFT 2021 - 2025 Region 5/7 INRMP, Utah Signature  
**Attachments:** Sig Pages - 88th RD 2021 DRAFT INRMP Update for USFWS Region 5-7 - UTAH signed.pdf

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

We are trying again on this. I will also text this to you.

**Eric Edgley**  
**Habitat Section Chief**  
Utah Division of Wildlife Resources  
1594 W North Temple St. Salt Lake City, Utah 84114  
W: 801-538-4822 C: 801-503-4392  
ericedgley@utah.gov < Caution-mailto:ericedgley@utah.gov >

----- Forwarded message -----

From: **Eric Edgley** <ericedgley@utah.gov < Caution-mailto:ericedgley@utah.gov > >  
Date: Fri, Aug 6, 2021 at 4:03 PM  
Subject: DRAFT 2021 - 2025 Region 5/7 INRMP, Utah Signature  
To: <susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil > >  
Cc: Robin Goodman <robinc@utah.gov < Caution-mailto:robinc@utah.gov > >, Nicole Nielson <nicolenielson@utah.gov < Caution-mailto:nicolenielson@utah.gov > >

Hello Susan, attached to this email is the signed signature page for the 2025 Region 5/7 INRMP from The Utah Division of Wildlife Resources. At the request of our Director, Rory Reynolds, it has been signed by his Assistant Director, Robin Goodman. The State of Utah, Division of Wildlife Resources has no comment on the U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP. Thank you.

**Eric Edgley**  
**Habitat Section Chief**  
Utah Division of Wildlife Resources  
1594 W North Temple St. Salt Lake City, Utah 84114  
W: 801-538-4822 C: 801-503-4392  
ericedgley@utah.gov < Caution-mailto:ericedgley@utah.gov >

## **Luetters, Susan T CTR USARMY 88 RD (USA)**

---

**From:** John Kennedy <john.kennedy@wyo.gov>  
**Sent:** Monday, August 9, 2021 8:06 AM  
**To:** Luetters, Susan T CTR USARMY 88 RD (USA)  
**Cc:** Meighan, Duane L CIV USARMY 88 RD (USA)  
**Subject:** [Non-DoD Source] Re: FW: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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Susan,

I talked to my staff and we did not provide comments earlier like I thought. My apologies.

The Wyoming Game and Fish Department does not have any comments on the INRMP.

Thanks for the coordination.

John Kennedy

John Kennedy, Deputy Director  
Wyoming Game and Fish Department  
5400 Bishop Boulevard  
Cheyenne, Wyoming 82006  
(307) 777-4501 - Office  
(307) 214-9567 - Cell

On Fri, Aug 6, 2021 at 2:11 PM Luetters, Susan T CTR USARMY 88 RD (USA) <susan.t.luetters.ctr@mail.mil <Caution-mailto:susan.t.luetters.ctr@mail.mil >> wrote:  
Deputy Director Kennedy

Per our conversation, if the state of Wyoming does not have any comment please sent ne an email stating as such along with the signed signature page.

If the state of Wyoming does have comments please provide them at you earliest convenience.

Best,

Susan T. Luetters

Natural Resources Manager  
88th RD DPW (Conservation Branch)  
Contractor (Gryphon /eLe)  
506 Roeder Circle  
Ft. Snelling 55111  
Phone: 612.467.7584  
Mobile: 907.317.2484  
Email: susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil >

-----Original Message-----

From: Luetters, Susan T CTR USARMY 88 RD (USA)  
Sent: Friday, May 28, 2021 11:46 AM  
To: 'John Kennedy' <john.kennedy@wyo.gov < Caution-mailto:john.kennedy@wyo.gov > >  
Cc: USARMY 88 RSC Meighan (US) (duane.l.meighan.civ@mail.mil < Caution-mailto:duane.l.meighan.civ@mail.mil > ) <duane.l.meighan.civ@mail.mil < Caution-mailto:duane.l.meighan.civ@mail.mil > >  
Subject: U.S. Army Reserves 88th Readiness Div. - DRAFT 2021 - 2025 Region 5/7 INRMP

Deputy Director Kennedy,

Attached please find the U.S. Army Reserves 88th Readiness Division USFWS Region 5/7 - 2021 -2025 Integrated Natural Resource Plan (INRMP) for our sites located in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming along with the cover letter and Attachments A (included with the cover letter PDF) and Attachment B (Word doc.).

If there are any questions or problems with any of the three attached documents, please contact me by phone on the mobile number given below or via email.

Best,

Susan T. Luetters  
Natural Resources Manager  
Contractor (Versar)  
88th Readiness Division  
Conservation Branch  
506 Roeder Circle  
Ft. Snelling, 55111  
Phone: 612.467.7584  
Mobile: 907.317.2484  
Email: susan.t.luetters.ctr@mail.mil < Caution-mailto:susan.t.luetters.ctr@mail.mil >

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.

**Re: Army Reserve INRMP**

Jones, Rickey L <rickey\_jones@fws.gov>

Wed 8/11/2021 10:01 AM

To: Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>

Hi Pam-

I looked closely at one site. One of the Colorado sites had some BTPD issues and given its proximity to RMANWR there was some discussion about treating those dogs for plague to prevent impacts to BTPD and BFF on RMANWR. It said that effort was put on hold in 2018. I was worried about extermination on the site, but that is not considered because of the proximity to RMANWR. I am Ok with both sections.

No concerns or comments from me.

Rickey

---

**From:** Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>

**Sent:** Tuesday, July 13, 2021 8:07 AM

**To:** Jones, Rickey L <rickey\_jones@fws.gov>

**Subject:** Army Reserve INRMP

Hi Rickey, attached is the Army Reserve's INRMP that includes sites in CO along with a document to provide any comments. Would you mind taking a look at this, particularly the sites in CO and provide me with any concerns/comments? By August 15th if possible. Thank you, Pam

Pamela J. Sponholtz  
Project Leader, Colorado Fish and Wildlife Conservation Office  
U.S. Fish and Wildlife Service  
134 Union Blvd  
Lakewood, CO 80228  
303-929-6392 cell  
303-236-4216 office  
pamela\_sponholtz@fws.gov





REVIEW COMMENTS			REVIEWERS: Nicole Alt (USFWS Ecological Services)			
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review						
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY						
PROJECT MANAGER: Duane Meighan			Design Document		Action taken on comment by:	
			X	Draft		Final
Item No.	Page #/ Line #	COMMENTS w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.	Preparer		Preparer Comment/Justification	
			A - Accept		C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.	
			W-Withdraw			
			R – Reject w/ comment			
1	MS-21/4	Sites CO Wildlife Conservation Strategy (2006) with hyperlink to the CO State Wildlife Action Plan The plan is dated 2015.	A			
2	3-14/10-11	Black-footed ferrets are expanding on RMANWR. Consider deleting “however given the fragility of introductions and their failure to thrive under those conditions it is highly unlikely that BFF will ever present on the site.”	A			
3	3-14/38-40	Suggest deleting “have not met with success.” Change to “surveys show reintroduction efforts can be successful with plague management.”	A			
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REVIEW COMMENTS			REVIEWERS: Nicole Alt (USFWS Ecological Services)			
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review						
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY						
PROJECT MANAGER: Duane Meighan			Design Document		Action taken on comment by:	
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			W-Withdraw		corrected, describe justification.	
			R – Reject w/ comment		Please provide recommended alternative wording.	
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REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)						
I reviewed this document for all facilities located in Kansas.		<b>Laura Mendenhall</b> <b>U.S. Fish and Wildlife Service</b> <b>Kansas Ecological Services Field Office</b>						
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review								
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY								
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:			
		X	Draft		Final	Preparer	Preparer Comment/Justification	
						A - Accept	C - Correction made. If not	
						W-Withdraw	corrected, describe justification.	
						R – Reject w/	Please provide recommended	
						comment	alternative wording.	
Item No.	Page #/ Line #	COMMENTS						
		w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.						
1	MS-15/16	General comment about the SAR list as referenced throughout the document—is there a citation or link you can provide? Is the Balbach et al. 2010 the most up-to-date version of this list?					A	Correct, that is the only list we are aware of.
2	MS-21/8-11	The Kansas SWAP was updated in 2016 ( <a href="https://ksoutdoors.com/Services/Kansas-SWAP">https://ksoutdoors.com/Services/Kansas-SWAP</a> ) . Change reference and link to reflect.					A	
3	3-34/11-12	Johnsongrass is listed on the Kansas Noxious Weed list which requires treatment (see: <a href="https://agriculture.ks.gov/divisions-programs/plant-protect-weed-control/noxious-weed-control-program">https://agriculture.ks.gov/divisions-programs/plant-protect-weed-control/noxious-weed-control-program</a> and <a href="https://www.jocogov.org/dept/public-works/noxious-weed/noxious-weed-management">https://www.jocogov.org/dept/public-works/noxious-weed/noxious-weed-management</a>					A	
4	3-36/6	Northern long-eared bat is a federally-listed species occurring in Johnson County, as well.					A	No NLEB were found at the site.
5	3-37/20	If this report is available for sharing, the USFWS Kansas ES office would be interested in seeing it (KansasES@fws.gov).					A	A copy of the final report went to Ms. Michele McNulty with the USFWS.
6	4-31/39	Locust isn't a noxious weed, did you mean Johnsongrass here?					A	
7	B-16/35	Interior least tern has been removed from ESA (Federal Register reference here: <a href="https://www.federalregister.gov/documents/2021/01/13/2020-28192/angered-and-threatened-wildlife-and-plants-removal-of-the-interior-least-tern-from-the-federal">https://www.federalregister.gov/documents/2021/01/13/2020-28192/angered-and-threatened-wildlife-and-plants-removal-of-the-interior-least-tern-from-the-federal</a> )					A	
8	B-19/12-13	General comment for any reference to northern long-eared bat is to rely on the 4(d) rule and determination key with regard to any tree clearing or modification activities. The determination key is available in IPaC ( <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a> ) but can be previewed here: <a href="https://www.fws.gov/midwest/angered/mammals/nleb/KeyFinal4dNLEBFedProjects.html">https://www.fws.gov/midwest/angered/mammals/nleb/KeyFinal4dNLEBFedProjects.html</a>					A	
9	B-47/15-16	Need to consult the northern long-eared bat 4(d) rule and subsequent key prior to any tree removal/modification activities within the WNS Zone					A	
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<b>REVIEW COMMENTS</b>		REVIEWERS: (Name and Agency affiliation)					
<b>I reviewed this document for all facilities located in Kansas.</b>		<b>Laura Mendenhall</b>					
		<b>U.S. Fish and Wildlife Service</b>					
		<b>Kansas Ecological Services Field Office</b>					
<b>PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review</b>							
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:		
		X	<b>Draft</b>		<b>Final</b>		
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4	3-36/6	Northern long-eared bat is a federally-listed species occurring in Johnson County, as well.					
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6	4-31/39	Locust isn't a noxious weed, did you mean Johnsongrass here?					
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8	B-19/12-13	General comment for any reference to northern long-eared bat is to rely on the 4(d) rule and determination key with regard to any tree clearing or modification activities. The determination key is available in IPaC ( <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a> ) but can be previewed here: <a href="https://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEBFedProjects.html">https://www.fws.gov/midwest/endangered/mammals/nleb/KeyFinal4dNLEBFedProjects.html</a>					
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REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)					
		Mark Porath Nebraska Project Leader/Field Supervisor Ecological Services, Mountain-Prairie Region U.S. Fish and Wildlife Service Office: 308-382-6468 <a href="mailto:mark_porath@fws.gov">mark_porath@fws.gov</a>					
<b>PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review</b> LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:		
		X	<b>Draft</b>		<b>Final</b>		
Item No.	Page #/ Line #	COMMENTS w/ reviewers name in ( ) if multiple reviewers. Please provide recommended alternative wording.				Preparer A - Accept W-Withdraw R – Reject w/ comment	Preparer Comment/Justification C - Correction made. If not corrected, describe justification. Please provide recommended alternative wording.
1	MS-22/24	Replace with “9325 S Alda Road” (Porath)				A	
2	MS-22/25	Replace with “Wood River, Nebraska 68883” (Porath)				A	
3	3-47/1	Including some sort of map location, like Lat/Long or UTM coordinates (Porath)				A	
4	3-48/1	Including some sort of map location, like Lat/Long or UTM coordinates (Porath)				A	
5	4-33/5	Replace “NDEQ” with “NDEE” (Porath)				A	
6	4-33/7	Replace “NDEQ” with “NDEE” (Porath)				A	
7	4-33/9	Replace “NDEQ” with “NDEE” (Porath)				A	
8	B-63/3	Delete as “Interior least tern” is now delisted (Porath)				A	
9	B-64/35	Delete as “Interior least tern” is now delisted (Porath)				A	
10	B-66/35	Delete as “Interior least tern” is now delisted (Porath)				A	
11	B-68/37	Delete as “Interior least tern” is now delisted (Porath)				A	
12	B-71/5	Delete as “Interior least tern” is now delisted (Porath)				A	
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REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)					
		Mark Porath Nebraska Project Leader/Field Supervisor Ecological Services, Mountain-Prairie Region U.S. Fish and Wildlife Service Office: 308-382-6468 <a href="mailto:mark_porath@fws.gov">mark_porath@fws.gov</a>					
<b>PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review</b> LOCATION: CO, KS, NT, NE, ND, SD, UT, WY		Design Document			Action taken on comment by:		
PROJECT MANAGER: Duane Meighan		X	<b>Draft</b>		<b>Final</b>		
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REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)					
		Julie Reeves, U.S. Fish and Wildlife Service, Wyoming Ecological Services Field Office					
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review							
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
PROJECT MANAGER: Duane Meighan		Design Document			Action taken on comment by:		
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1	III/ 18	Regional Director, Noreen Walsh, has retired and Matt Hogan will be the acting Regional Director until the position is filled. We recommend that the title be adjusted to “Regional Director” and add the word “Acting.”				A	
2	MS-22/ 36-38	The Wyoming Field Office moved to a new address: 334 Parsley Boulevard, Cheyenne, WY 82007. The phone number remains the same.				A	
3	B-101/ 3-14	The federally listed species included here are located in the Platte River in Nebraska, many miles downstream of the Antelope Flats ARC. Only water use hydrologically connected to the Platte River may lead to adverse effects to these species. It would be helpful to adjust the language here stating that no depletions within the Platte River basin are anticipated with the update of the INRMP for Antelope Flats ARC. We agree that there are no other federally listed species expected to occur within the Antelope Flats ARC.				A	
4	B-101/ 19-21	The U.S. Fish and Wildlife Service supports the removal of invasive species, such as field bindweed, to improve wildlife habitat. While no work is currently proposed at the Antelope Flats ARC, any activities to remove invasive species should follow the 88 <sup>th</sup> RD Pest Management Plan.				A	
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REVIEW COMMENTS		REVIEWERS: (Name and Agency affiliation)					
		Julie Reeves, U.S. Fish and Wildlife Service, Wyoming Ecological Services Field Office					
PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review							
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY							
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<b>REVIEW COMMENTS</b>		REVIEWERS: (Name and Agency affiliation)				
		<b>Julie Reeves, U.S. Fish and Wildlife Service, Wyoming Ecological Services Field Office</b>				
<b>PROJECT: 2021-2025 Region 5/7 INRMP – Agency Review</b>						
LOCATION: CO, KS, NT, NE, ND, SD, UT, WY						
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**Re: Army Reserve 88th Division INRMP review**

Bass, Amity A &lt;amity\_bass@fws.gov&gt;

Thu 8/12/2021 7:39 AM

**To:** Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>; James, Daniel A <daniel\_james@fws.gov>

Hi Pam

The Dakotas ES offices do not have any comments to provide. Thanks for sending this and allowing us to review.

Amity

Amity Bass  
Field Supervisor  
North and South Dakota Ecological Services  
office: 605-224-8693 ext 224

---

**From:** Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>**Sent:** Tuesday, July 13, 2021 9:14 AM**To:** James, Daniel A <daniel\_james@fws.gov>; Bass, Amity A <amity\_bass@fws.gov>**Subject:** Army Reserve 88th Division INRMP review

Good morning Dan and Amity, attached is the Army's INRMP that includes sites in South Dakota for your review along with a document to provide any comments you or your staff may have on the INRMP. Please return to me by August 15th if that is workable and thank you, Pam

Pamela J. Sponholtz  
Project Leader, Colorado Fish and Wildlife Conservation Office  
U.S. Fish and Wildlife Service  
134 Union Blvd  
Lakewood, CO 80228  
303-929-6392 cell  
303-236-4216 office  
pamela\_sponholtz@fws.gov

**FW: Army Reserve 88th Readiness Division INRMP**

Martin, Jacob <jacob\_martin@fws.gov>

Wed 8/4/2021 11:16 AM

To: Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>

Cc: Bush, Jodi <jodi\_bush@fws.gov>; Berglund, Jeff <jeff\_berglund@fws.gov>; Jordan, George <george\_jordan@fws.gov>

Hi Pam,

I've reviewed the Montana sections of the subject draft INRMP. All facilities addressed in Montana are small (10 acres or less), largely urban, and identified as having no habitat for listed species. The MTESO therefore has no comments on the draft. Thanks for the opportunity to review.

Jake

Jacob M. (Jake) Martin  
Assistant Field Supervisor  
Montana Ecological Services Office  
585 Shephard Way, Suite 1  
Helena, Montana 59601  
(406) 422-8524 (cell, preferred, I'm teleworking)  
(406) 430-9007 (office)  
[jacob\\_martin@fws.gov](mailto:jacob_martin@fws.gov)

---

**From:** Sponholtz, Pamela J <[pamela\\_sponholtz@fws.gov](mailto:pamela_sponholtz@fws.gov)>

**Sent:** Tuesday, July 13, 2021 8:11 AM

**To:** Jordan, George <[george\\_jordan@fws.gov](mailto:george_jordan@fws.gov)>; Bush, Jodi <[jodi\\_bush@fws.gov](mailto:jodi_bush@fws.gov)>

**Subject:** Army Reserve 88th Readiness Division INRMP

Good morning George and Jodi attached is the Army's INRMP that includes sites in MT for your review along with a document to provide any comments you or your staff may have on the INRMP. Please return to me by August 15th if that is workable and thank you, Pam

Pamela J. Sponholtz  
Project Leader, Colorado Fish and Wildlife Conservation Office  
U.S. Fish and Wildlife Service  
134 Union Blvd  
Lakewood, CO 80228  
303-929-6392 cell  
303-236-4216 office  
[pamela\\_sponholtz@fws.gov](mailto:pamela_sponholtz@fws.gov)

## Army Reserve 88th Division INRMP review

Moore, Joseph D <joseph\_moore@fws.gov>

Mon 8/9/2021 1:37 PM

To: Sponholtz, Pamela J <pamela\_sponholtz@fws.gov>

Cc: Converse, Yvette <yvette\_converse@fws.gov>; Weekley, George M <george\_weekley@fws.gov>; Fuller, Mark H <mark\_h\_fuller@fws.gov>

Hi Pam,

The Utah ES Field Office has no comments on the Army Reserve 88th Division INRMP.

Thank you for the opportunity to review.

Joe

### Joe Moore

Fish & Wildlife Biologist

U.S. Fish and Wildlife Service

Utah Field Office

2369 West Orton Circle, Suite 50

West Valley City, Utah 84119

(385) 285-7921 (while teleworking voicemail will be checked once a day)

For electronic submission of Section 7 documents to the Utah Field Office, use the following email: [utahfieldoffice\\_esa@fws.gov](mailto:utahfieldoffice_esa@fws.gov)

<https://www.fws.gov/utahfieldoffice/>





DEPARTMENT OF THE ARMY  
UNITED STATES ARMY LEGAL SERVICES AGENCY  
9275 GUNSTON ROAD  
FORT BELVOIR, VIRGINIA 22060-5546

JALS-EL

15 November 2021

MEMORANDUM FOR Sustainment & Resiliency Division, Office of the Chief, United States Army Reserve, Fort Belvoir, Virginia 22060

SUBJECT: Legal Review – Integrated Natural Resource Management Plan for 88th Readiness Division

1. Conclusion. There are no legal objections to approving this Integrated Natural Resources Management Plan (INRMP).
2. Background. This office received a request to review the subject-referenced INRMP on or about 19 October 2021. The INRMP covers 88th Readiness Division (RD) units located in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming.
3. This office has reviewed the documentation provided and found no legal objections concerning legal requirements under federal law and applicable Department of Defense and Department of the Army regulations.
4. This legal review assumes the appropriate subject matter experts have reviewed the INRMP and ensured compliance with proponent and governing regulations, instructions, and policy memoranda.
5. The point of contact for this memorandum is the undersigned at (703) 693-0501 or [matthew.c.gallagher.mil@mail.mil](mailto:matthew.c.gallagher.mil@mail.mil).

GALLAGHER.MATTH  
EW.C.1093484572

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Date: 2021.11.15 16:03:12 -05'00'

MATTHEW C. GALLAGHER  
MAJ, JA  
Environmental Law Attorney





## **Appendix G: NEPA Documentation**

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**RECORD OF ENVIRONMENTAL CONSIDERATION  
INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN  
USFWS INTERIOR REGIONS 5 and 7 (2021-2025)  
PREPARED FOR THE 88TH READINESS DIVISION**

**September 2021**

**Project Title:** Integrated Natural Resources Management Plan (INRMP) – Update, USFWS Interior Regions 5 and 7, (2021-2025).

**Proponent:** 88th Readiness Division (RD) - Directorate of Public Works (DPW) – Environmental Division

**Description of Proposed Action:**

The 88th RD proposes to implement the 2021-2025 projects presented in the Command's updated Integrated Natural Resources Management Plan (INRMP) for U.S Army Reserve locations within the US Fish and Wildlife Service (USFWS) Internal Regions 5 and 7. This includes facilities located within the following states: Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah and Wyoming. Execution of proposed projects are subject to the availability of funding and priority/need for the project.

INRMPs are planning documents that help ensure military operations and natural resources conservation are integrated and consistent with stewardship and legal requirements. INRMPs are prepared in cooperation with the USFWS and State fish and wildlife agencies to ensure proper consideration of potential impacts to species and the natural environment.

*32 CFR Part 651 Environmental Analysis of Army Actions; Final Rule, March 29 2002*, requires that National Environmental Policy Act (NEPA) documentation be periodically reviewed for adequacy and completeness in light of changes in project actions or site conditions. Proponents are required to review relevant and existing NEPA analyses to ascertain the need for supplemental documentation.

The U.S. Army Reserve completed an Environmental Assessment (EA) of proposed actions associated with the implementation of the prior INRMP (2015-2020) in the aforementioned 8 states. The EA resulted in a finding of no significant impact (FNSI). Based on the comparative analysis performed, the implementation of the 2021-2025 INRMP Update will not result in substantial changes to proposed projects and remains consistent with the impact analysis presented in the 2015-2020 EA.

This Record of Environmental Consideration (REC) has been prepared to document the results of this periodic review. No supplemental NEPA documentation is required.

**Anticipated Date of Proposed Action:** 2021-2025

**RECORD OF ENVIRONMENTAL CONSIDERATION**  
**REC21-WI020: 88th RD INRMP Regions 5 and 7 Update (2021-2025)**

**Implementation Instructions:**

Adhere to the requirements and management practices outlined within the INRMP to ensure that proposed actions do not cause damage to sensitive resources at 88th RD facilities and land assets.

**Environmental and Other Documentation Reviewed:**

Draft Final Integrated Natural Resources Management Plan, USFWS Internal Regions 5 and 7 (former USFWS Region 6), Updated, 2021-2025. Prepared for the 88th Readiness Division.

Final Environmental Assessment for the Implementation of the INRMP Update 2015-2020, Region 6 (currently USFWS Regions 5 and 7), January 2016.

**NEPA Requirements and Justification for Categorical Exclusion:**

Based on the comparative analysis performed, the updated INRMP covering years 2021-2025 will not result in a substantial change relative to environmental concerns and proposed actions/projects previously documented and analyzed within the 2015-2020 INRMP EA and FNSI.

The implementation of the INRMP Update meets the criteria for categorical exclusion from the National Environmental Policy Act as stated in 32 CFR Part 651 paragraph 651.11 and the screening requirements of Subpart D paragraph 651.29 (a). No extraordinary circumstances have been identified. The proposed action qualifies for categorical exclusions (b)(3) and (d)(4), which are listed in 32 CFR Part 651, Appendix B, Section II.

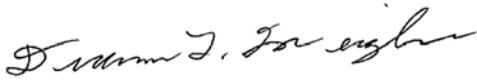
*(b) Administration/operation activities: (3) Preparation of regulations, procedures, manuals and other guidance documents that implement, without substantive change, the applicable HQDA or other federal agency regulations, procedures, manuals, and other guidance documents that have been environmentally evaluated (subject to previous NEPA review).*

*(d) Cultural and natural resource management activities: (4) Studies, data collection, monitoring and information gathering that do not involve major surface disturbance. Examples include topographic surveys, bird counts, wetland mapping, and other resources inventoried (REC required).*

The application of the aforementioned categorical exclusions is appropriate for this action. In accordance with 32 CFR Part 651, a Record of Environmental Consideration has been prepared.

**RECORD OF ENVIRONMENTAL CONSIDERATION**  
**REC21-WI020: 88th RD INRMP Regions 5 and 7 Update (2021-2025)**

**Signatures:**

**Approved:**   
\_\_\_\_\_  
Duane L. Meighan  
Environmental Conservation Manager  
Public Works – Environmental Division  
88th Readiness Division

Date: 16 Sep 2021

**Completed:**   
\_\_\_\_\_  
Lisa R. Gulbranson  
Environmental Protection Specialist  
Gryphon Contractor  
88th Readiness Division

Date: 2 September 2021

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## **Appendix H: Signature Pages**





1 **INTEGRATED NATURAL RESOURCES**  
2 **MANAGEMENT PLAN**

3 **88th Readiness Division**  
4 **Installation Management Command - Army Reserve**

5 **ENDORSEMENT**

6 This Integrated Natural Resources Management Plan (INRMP) has been prepared in accordance with  
7 regulations, standards, and procedures of the Department of Defense (DoD) and the U.S. Army Reserve  
8 (USAR) in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the Colorado, Kansas, Montana,  
9 Nebraska, North Dakota, South Dakota, Utah, and Wyoming Departments of Natural Resources. The  
10 signatures below indicate the mutual agreement of the parties concerning the conservation, protection, and  
11 management of the fish and wildlife resources presented in the Plan.

12 This INRMP meets the requirements of the Sikes Act (16 U.S. Code [USC] 670a *et seq.*) as amended.

13 **Approving Officials:**

14 **Darrell J. Guthrie**  
15 **Major General, USA**  
16 **Commanding**

\_\_\_\_\_  
\_\_\_\_\_  
Date

18 **James M. Lewis**  
19 **COL, EN**  
20 **Director of Public Works**

\_\_\_\_\_  
\_\_\_\_\_  
Date

22 **Director Dan Prenzlow**  
23  
24 **Colorado Parks and Wildlife**  
25 **Denver, Colorado**

\_\_\_\_\_  
  
Date 8-26-21

26 **Secretary Brad Loveless**  
27  
28 **Kansas Department of Wildlife, Parks, and Tourism**  
29 **Topeka, Kansas**

\_\_\_\_\_  
\_\_\_\_\_  
Date

30 **Director Martha Williams**  
31  
32 **Montana Fish, Wildlife, & Parks**  
33 **Helena, Montana**

\_\_\_\_\_  
\_\_\_\_\_  
Date

34 **Director Jim Douglas**  
35  
36 **Nebraska Game and Parks Commission**  
37 **Lincoln, Nebraska**

\_\_\_\_\_  
\_\_\_\_\_  
Date

1 **INTEGRATED NATURAL RESOURCES**  
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14 Darrell J. Guthrie \_\_\_\_\_  
15 Major General, USA  
16 Commanding  
17 Date \_\_\_\_\_

18 James M. Lewis \_\_\_\_\_  
19 COL, EN  
20 Director of Public Works  
21 Date \_\_\_\_\_

22 Director Dan Prenzlouw \_\_\_\_\_  
23  
24 Colorado Parks and Wildlife  
25 Denver, Colorado Date \_\_\_\_\_

26 Secretary Brad Loveless \_\_\_\_\_  
27  
28 Kansas Department of Wildlife and Parks  
29 Topeka, Kansas *Brad Loveless*  
*8/9/21*  
Date \_\_\_\_\_

30 Director Martha Williams \_\_\_\_\_  
31  
32 Montana Fish, Wildlife, & Parks  
33 Helena, Montana Date \_\_\_\_\_

34 Director Jim Douglas \_\_\_\_\_  
35  
36 Nebraska Game and Parks Commission  
37 Lincoln, Nebraska Date \_\_\_\_\_

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1 **INTEGRATED NATURAL RESOURCES**  
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20 Director of Public Works

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23 Colorado Parks and Wildlife  
24 Denver, Colorado

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Date

26 Secretary Brad Loveless  
27 Kansas Department of Wildlife, Parks, and Tourism  
28 Topeka, Kansas

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Date

30 Director ~~Martha Williams~~ <sup>for</sup> Hank Worsch  
31 Montana Fish, Wildlife, & Parks  
32 Helena, Montana

\_\_\_\_\_  
Date 6/23/21

34 Director Jim Douglas  
35 Nebraska Game and Parks Commission  
36 Lincoln, Nebraska

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Date

1  
2 Director Scott Peterson  
3  
4 North Dakota Game and Fish Department  
5 Bismarck, North Dakota

*Scott Peterson, Interim Director*  
4 August 2021  
Date

6 Secretary Kevin Robling  
7  
8 South Dakota Game, Fish and Parks  
9 Fort Pierre, South Dakota

\_\_\_\_\_  
Date

10 Director Rory Reynolds  
11  
12 Utah Division of Wildlife Resources  
13 Salt Lake City, Utah

\_\_\_\_\_  
Date

14 Deputy Director John Kennedy  
15  
16 Wyoming Game & Fish Department  
17 Cheyenne, Wyoming

\_\_\_\_\_  
Date

18 Acting Regional Director Matt Hogan  
19 USFWS Interior Region 5/7  
20 U.S. Fish and Wildlife Service  
21 Lakewood, Colorado

\_\_\_\_\_  
Date

22 **Recommended By:**  
23 Edward Tebo  
24 Chief, Public Works Environmental Division  
25 88th Readiness Division  
26

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Date

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1 **INTEGRATED NATURAL RESOURCES**  
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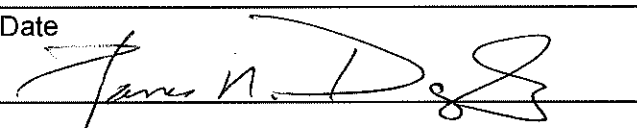
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29 Topeka, Kansas

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33 Helena, Montana

Date  


34 Director Jim Douglas  
35  
36 Nebraska Game and Parks Commission  
37 Lincoln, Nebraska

7-29-2021  
Date



1  
2 Director Terry Steinwand  
3  
4 North Dakota Game and Fish Department  
5 Bismarck, North Dakota

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Date

6 Secretary Kevin Robling  
7  
8 South Dakota Game, Fish and Parks  
9 Pierre, South Dakota

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Date

8-9-21

10 Director Rory Reynolds  
11  
12 Utah Division of Wildlife Resources  
13 Salt Lake City, Utah

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Date

14 Deputy Director John Kennedy  
15  
16 Wyoming Game & Fish Department  
17 Cheyenne, Wyoming

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Date

18 Director Noreen Walsh  
19 USFWS Interior Region 5/7  
20 U.S. Fish and Wildlife Service  
21 Lakewood, Colorado

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Date

22 **Recommended By:**

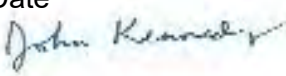
23 Edward Tebo  
24 Chief, Public Works Environmental Division  
25 88th Readiness Division

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1  
2 Director Scott Peterson \_\_\_\_\_  
3  
4 North Dakota Game and Fish Department \_\_\_\_\_  
5 Bismarck, North Dakota Date  
6 Secretary Kevin Robling \_\_\_\_\_  
7  
8 South Dakota Game, Fish and Parks \_\_\_\_\_  
9 Fort Pierre, South Dakota Date  
10 Director Rory Reynolds *Robin Goodman (Acting Director)*  
11 Robin Goodman (Acting Director) (Aug 6, 2021 15:22 MDT)  
12 Utah Division of Wildlife Resources \_\_\_\_\_  
13 Salt Lake City, Utah 08/06/2021  
Date  
14 Deputy Director John Kennedy \_\_\_\_\_  
15  
16 Wyoming Game & Fish Department \_\_\_\_\_  
17 Cheyenne, Wyoming Date  
18 Acting Regional Director Matt Hogan \_\_\_\_\_  
19 USFWS Interior Region 5/7  
20 U.S. Fish and Wildlife Service \_\_\_\_\_  
21 Lakewood, Colorado Date  
22 Recommended By:  
23 Edward Tebo \_\_\_\_\_  
24 Chief, Public Works Environmental Division  
25 88th Readiness Division \_\_\_\_\_  
26 Date  
27  
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3		
4	North Dakota Game and Fish Department	_____
5	Bismarck, North Dakota	Date
6	Secretary Kevin Robling	_____
7		
8	South Dakota Game, Fish and Parks	_____
9	Fort Pierre, South Dakota	Date
10	Director Rory Reynolds	_____
11		
12	Utah Division of Wildlife Resources	_____
13	Salt Lake City, Utah	Date
14	Deputy Director John Kennedy	
15	Wyoming Game & Fish Department	8/20/2022
16	Cheyenne, Wyoming	Date
17	Acting Regional Director Matt Hogan	_____
18	USFWS Interior Region 5/7	
19	U.S. Fish and Wildlife Service	_____
20	Lakewood, Colorado	Date
21	<b>Recommended By:</b>	
22	Edward Tebo	_____
23	Chief, Public Works Environmental Division	
24	88th Readiness Division	_____
25		Date
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Director Scott Peterson

\_\_\_\_\_

North Dakota Game and Fish Department  
Bismarck, North Dakota

\_\_\_\_\_  
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Secretary Kevin Robling

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South Dakota Game, Fish and Parks  
Fort Pierre, South Dakota

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Utah Division of Wildlife Resources  
Salt Lake City, Utah

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Cheyenne, Wyoming

\_\_\_\_\_  
Date

Acting Regional Director Matt Hogan  
USFWS Interior Region 5/7  
U.S. Fish and Wildlife Service  
Lakewood, Colorado

**MATTHEW HOGAN** Digitally signed by MATTHEW HOGAN  
Date: 2021.08.17 14:53:17 -06'00'

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Date

**Recommended By:**

Edward Tebo  
Chief, Public Works Environmental Division  
88th Readiness Division

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Date