



US Army Corps
of Engineers®
Los Angeles District

Fact Sheet

Kofa National Wildlife Refuge
Arizona 2010

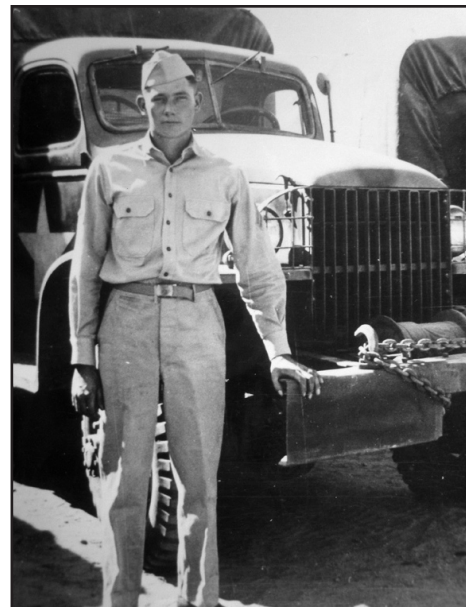
OVERVIEW

The purpose of this fact sheet is to inform community members and other interested parties about the activities that the U.S. Army Corps of Engineers (USACE) has been and will be conducting at the Kofa National Wildlife Refuge (Kofa). Located in the Sonoran Desert in southwestern Arizona in La Paz and Yuma counties, Kofa includes 660,063 acres of a formerly used defense site, or FUDS property. The USACE is the Department of Defense organization that is responsible for environmental restoration of properties that were formerly owned by, leased to, or otherwise possessed by the United States under the jurisdiction of the Secretary of Defense. The USACE activities at Kofa that are described in this fact sheet are being coordinated with the U.S. Fish and Wildlife Service (USFWS), which manages the Refuge.

SITE HISTORY

First designated as the Kofa Game Range on January 25, 1939, Kofa was established to provide for the conservation and development of natural wildlife resources and for the protection and improvement of public grazing lands and natural forage resources. Renowned for its austere beauty, Kofa encompasses nearly 860 square miles of rugged mountains, steep canyons, and eroded hills. It is also home to one of the largest populations of desert bighorn sheep in the southwestern United States.

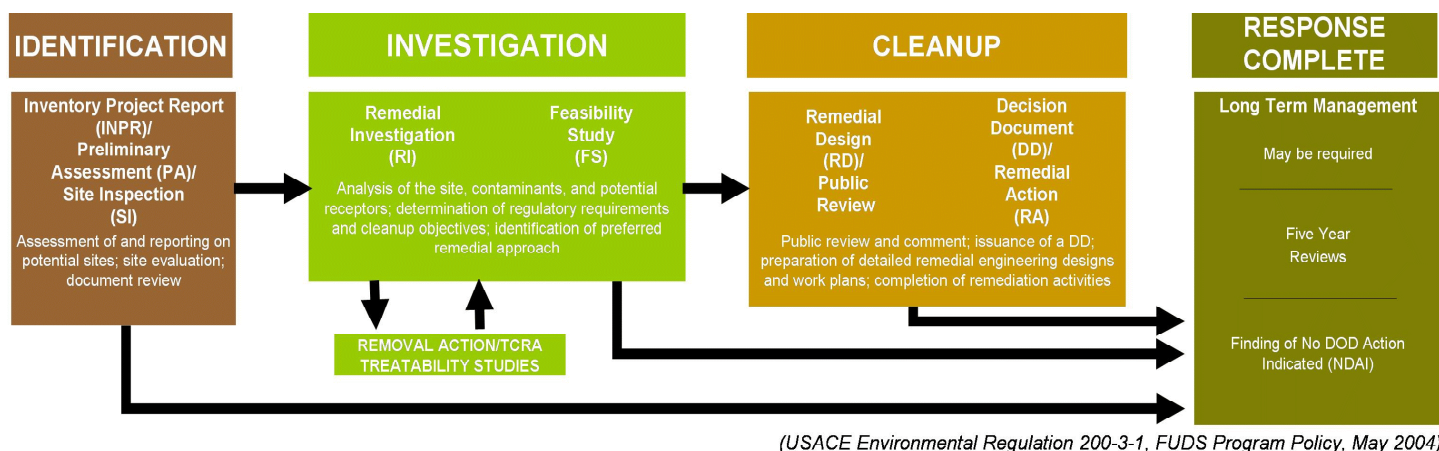
After the U.S. entered World War II, the War Department obtained a permit on June 29, 1942 from the Department of the Interior (DOI) to use over 4 million acres of public land in the state of Arizona for its Desert Training Center. The Center ultimately covered an area



KOFA NWR is east of U.S. Highway 95 between the city of Yuma and the town of Quartzsite. The southwestern corner of KOFA NWR is located approximately 43 miles north of the U.S. - Mexico border. Yuma Proving Grounds (YPG) borders the site to the south, east, and west.

stretching from Boulder City, Nevada to the Mexican border, and from Phoenix, Arizona to Pomona, California. Major General George S. Patton, Jr., the Center's first Commander, used these vast spaces for the large-scale maneuvers that were necessary to train infantry and mechanized units for combat in the desert. Shortly after General Patton was sent to North Africa for combat, the Center's name was changed to the California-Arizona Maneuver Area, or C-AMA.

Approximately 660,000 acres of Kofa became part of C-AMA's Laguna Maneuver Area (LMA), which included four camps—Bouse, Horn, Hyder, and Laguna. Tank and armored infantry battalions were stationed and trained at Camp Bouse; infantry divisions trained at Camps Horn and Hyder; and armored divisions, plus an infantry division, trained at Camp Laguna. The weapons used in the training areas included small arms such as .30- and .50-caliber



The FUDS Process and Remedial Phases

firearms, artillery shells and projectiles, practice anti-tank mines, and general purpose bombs.

By 1944, C-AMA lands covering approximately 12 million acres in California, Arizona, and Nevada were declared surplus to the War Department's needs. Roughly one year later on July, 25 1945, the DOI revoked the War Department's permit for 4,730,000 acres of public lands in the State of

Arizona used in connection with C-AMA/LMA maneuvers.

In the 1940s and 1950s, two dedudding operations were carried out to clear certain areas at Kofa of unexploded ordnance (UXO). The first operation was conducted in 1944 at an impact area near the Castle Dome Mountains. The second clearance operation, which was conducted from 1951 to 1954, was more extensive and included an investiga-

tion of non-mountainous areas (including an artillery impact area in the King Valley) where ordnance activity was documented or believed to have occurred. In addition, all public vehicle access routes were investigated and cleared.

FUDS MILITARY MUNITIONS RESPONSE PROGRAM

As the executing agent for the FUDS Military Munitions Response Program (MMRP), the USACE addresses UXO, discarded military munitions, and munitions constituents located on FUDS. Kofa is one of 1,165 FUDS nationwide that have been identified as having military munitions. So far, the USACE has completed MMRP Site Investigations (SI) at 479 of those sites. The FUDS MMRP follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund process and includes five phases which are described below.

1. Inventory:

The USACE verifies that a property is eligible as a FUDS and evaluates the potential issues or concerns at the site. The findings of this phase are presented in an Inventory Project Report, or INPR.



2. Preliminary Assessment (PA):

The PA phase consists of collecting readily available property information and conducting a property visit. The PA identifies potential projects within the FUDS and determines whether the projects qualify for the FUDS program.

3. MMRP Site investigation (SI):

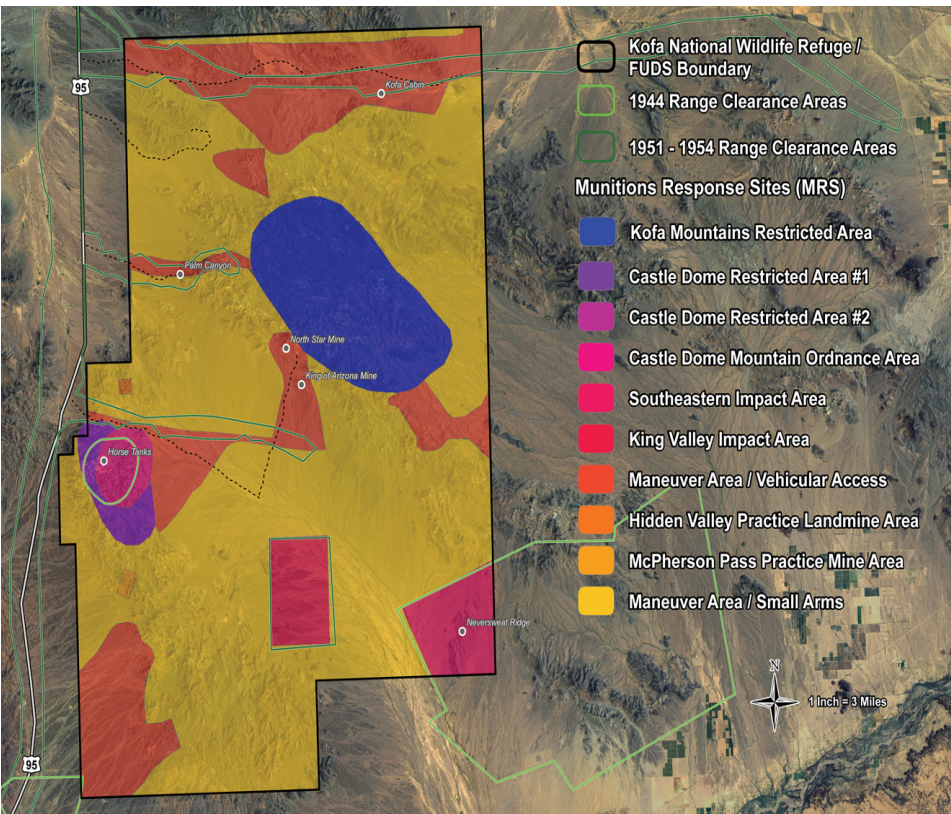
The SI phase involves visiting the property to confirm the data that was collected during the PA. Additional site-specific data is collected, and limited environmental investigations are performed to confirm the presence of military munitions.

4. Remedial Investigation (RI)/ Feasibility Study (FS):

This phase includes conducting an RI to characterize the nature and threat posed by the military munitions identified during the SI and gathering data necessary to assess the extent to which the identified munitions pose a threat to human health or the environment. Then, an FS is conducted to ensure that appropriate remedial alternatives are developed and evaluated.

5. Response:

This phase consists of developing the engineering design and doing what is



Map of MRSs within the Kofa National Wildlife Refuge

necessary to remove military munitions. Response plans, along with supporting analyses, are made available for

public comment and review. Following this review, a remedy is selected. The remedy can involve engineered solutions, which are often followed by long-term management and monitoring.

KOFA FUDs & ASSOCIATED MRSs	RAC SCORES
KOFA NWR 1: MRS01 –Kofa Mountains Restricted Area; MRS02 –Castle Dome Restricted Area #1; and MRS03 –Castle Dome Restricted Area #2	RAC Score of 5 for all MRSs
KOFA NWR 2: MRS01 –Castle Dome Mountain Ordnance Area (identified as a dud ordnance area) and MRS02 –Southeastern Impact Area (determined to be the northwestern portion of the Camp Horn’s mortar range, artillery range, and small arms range firing fans).	RAC Score of 4 for both MRSs
KOFA NWR 3: MRS01 –King Valley Impact Area, which was used to conduct Army maneuvers and artillery firing activities.	RAC Score of 4 for MRS01
KOFA NWR 4: MRS01 –Maneuver Area/Vehicular Access	RAC Score of 5 for MRS01
KOFA NWR 5: MRS01 –Hidden Valley Practice Landmine Area; MRS02 –McPherson Pass Practice Mine Area (which was used for occasional and light bivouac related to maneuver area training by nearby C-AMA camps); and MRS03 –Maneuver Area/Small Arms	RAC Score of 4 for MRS01 and MRS02 RAC Score of 5 for MRS03

USACE WORK AT KOFA

In 1993, the USACE conducted a PA of Kofa and identified five potential FUDS areas covering roughly 660,000 acres of the Refuge. The map (top right) depicts the locations of the five areas, along with the munitions response sites (MRS) contained within them.

Following the PA, the USACE completed an INPR, which established a preliminary site boundary and determined that the five areas identified in the PA met the criteria to be categorized as FUDS. The INPR recommended investigation into the five FUDS to determine further appropriate action.

Following the INPR, the USACE conducted archival research to obtain information on the historical activities at the five FUDS. The findings of the research were published in 1999 in an Archive Search Report. In 2004, the USACE assigned a Risk Assessment Code (RAC) score to each MRS at Kofa. The RAC scores are assigned on a scale of 1 to 5, with 1 being the most hazardous. The scores are determined primarily by the types of munitions known or suspected to have been used at each MRS. The RAC scores for each MRS are listed in the table on page 3.

In 2008 and 2009, the USACE conducted an SI at each MRS to determine whether any warranted further evaluation. The USACE's SIs recommended that further investigations

be conducted at all the MRSs except those located within KOFA NWR 1, which received a No Department of Defense Action Indicated (NDAI) evaluation for all three of its MRSs.

GUIDE TO SAFE USE OF KOFA

Because military munitions can be found at the Kofa National Wildlife Refuge, it is important that staff and visitors are able to recognize munitions debris and respond appropriately should they be encountered.

BE SAFE...FOLLOW THE 3 Rs



you may have encountered a munition.



from the munition. Do not touch or disturb it, but move away carefully, walking out the same way you entered the area.



what you saw and where you saw it by calling (623) 580-5515.



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For more information, please contact the U.S. Army Corps of Engineers, Los Angeles District, Public Affairs Office at:

(602) 640-2005, extension 285

or by email at:

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Anti-Tank Mine



Grenade



Spent Projectile