Closed Castner Firing Range Remedial Investigation

Public Meeting

13 May 2015

6:00 – 8:00 PM

Presentation Topics

- Meeting Goals
- Military Munitions Response Program
- Remedial Investigation Objectives
- Closed Castner Firing Range History
- Current Project Status
- Field Work Review
- Safety Considerations
- Project Schedule
- Questions and Answers

Meeting Goals

- Provide information to the public related to the current Closed Castner Firing Range project
- Discuss the project activities to be performed
- Discuss the overall schedule
- Provide an open forum to ask questions and provide answers

Definitions

- Military Munitions Response Program (MMRP) – Department of Defense program that addresses munitions-related concerns, including explosives safety, environmental, and health hazards
- Munitions and Explosives of Concern (MEC) – term that specifies different categories of munitions with explosives hazards, including unexploded ordnance (UXO) and discarded military munitions (DMM)
- Munitions Constituents (MC) – materials originating from the above items, including explosive and non-explosive materials

MEC

MC

What Is Being Done?

- The Remedial Investigation (RI) will:
  - Characterize munitions response site (MRS) conditions
  - Determine nature and extent of MEC and MC
  - Determine residual hazards and conduct risk assessments
- What is not addressed in this project?
  - Development of cleanup alternatives
    - To be conducted during the next project phase
  - Future land use decisions
  - Munitions removal / remediation

Who is Involved?

- Fort Bliss Garrison Command
  - Directorate of Public Works – Environmental Division
- U.S. Army Corps of Engineers
- U.S. Army Environmental Command
- PIKA-ARCADIS Joint Venture (“JV”)
- Public and Stakeholders
  - Texas Commission on Environmental Quality
  - U.S. Environmental Protection Agency, Region 6
  - Texas Parks and Wildlife Department
  - Native American Tribes
  - Many local and regional groups

Stakeholders

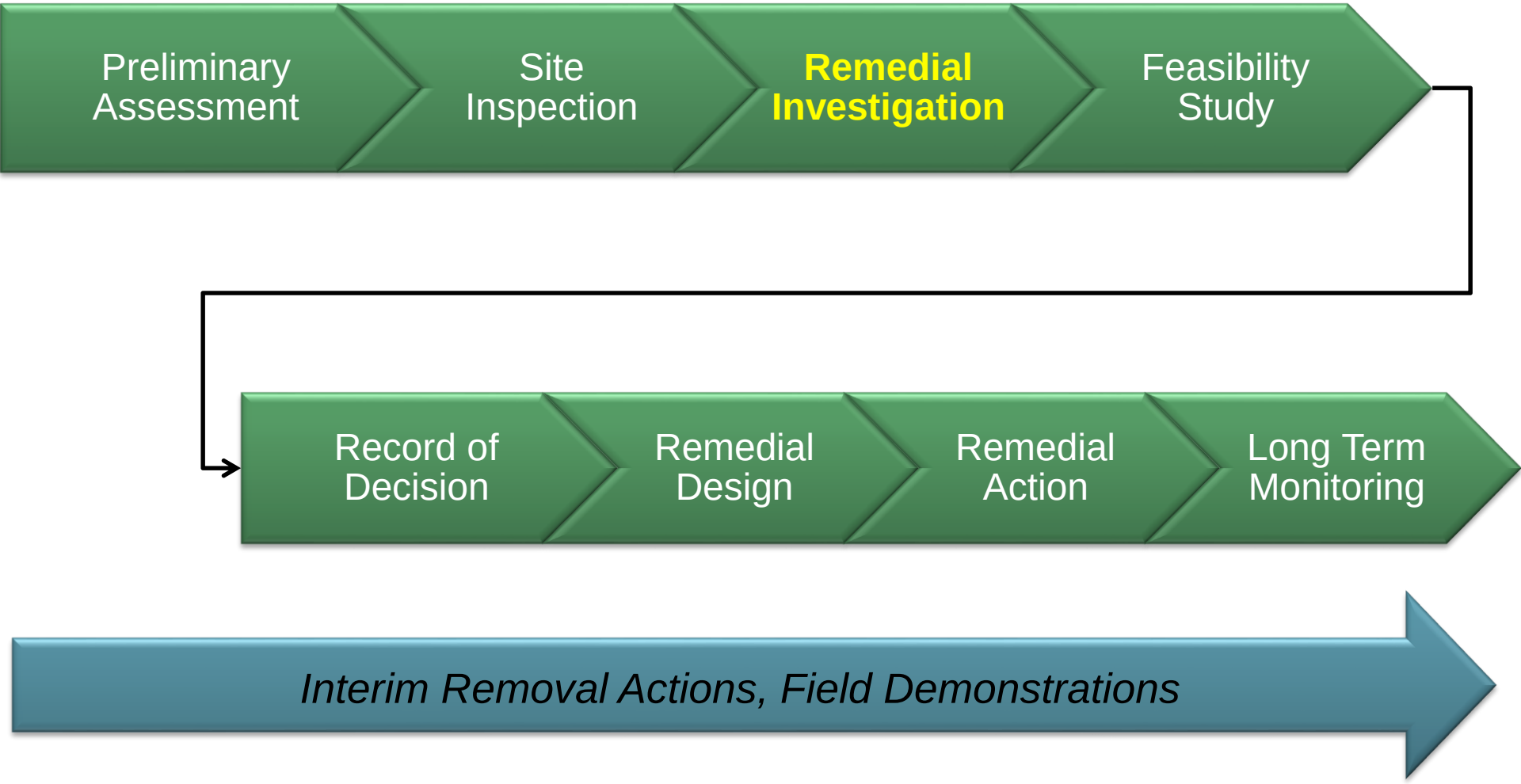
- Border Patrol
- Castner Heights Neighborhood Association
- Chihuahuan Desert Education Coalition
- City of El Paso
- Comanche Nation
- El Paso County
- El Paso Water Utilities
- Elpasonaturally
- Franklin Mountains Wilderness Coalition
- Franklin Mountains State Park
- Fort Bliss Restoration Advisory Board
- Frontera Land Alliance
- Kiowa Tribe of Oklahoma
- Mescalero Apache Tribe
- Pueblo of Isleta
- Senators, Congressmen, and Congressional Candidates
- Sierra Club
- Texas Department of Transportation
- Texas Parks and Wildlife
- University of Texas at El Paso
- Ysleta Del Sur Pueblo

What is the MMRP?

- Addresses munitions-related concerns, including explosives safety, environmental, and health hazards from releases of MEC and MC found on “other than operational ranges” on active installations
- MMRP provides for the investigation and response at sites with MEC and/or MC
- MMRP follows CERCLA process (“Superfund”)

More information available at
http://www.asaie.army.mil/Public/ESOH/mmrp.html

MMRP Phases


Preliminary Assessment
Site Inspection
Remedial Investigation
Feasibility Study
Record of Decision
Remedial Design
Remedial Action
Long Term Monitoring
Interim Removal Actions, Field Demonstrations

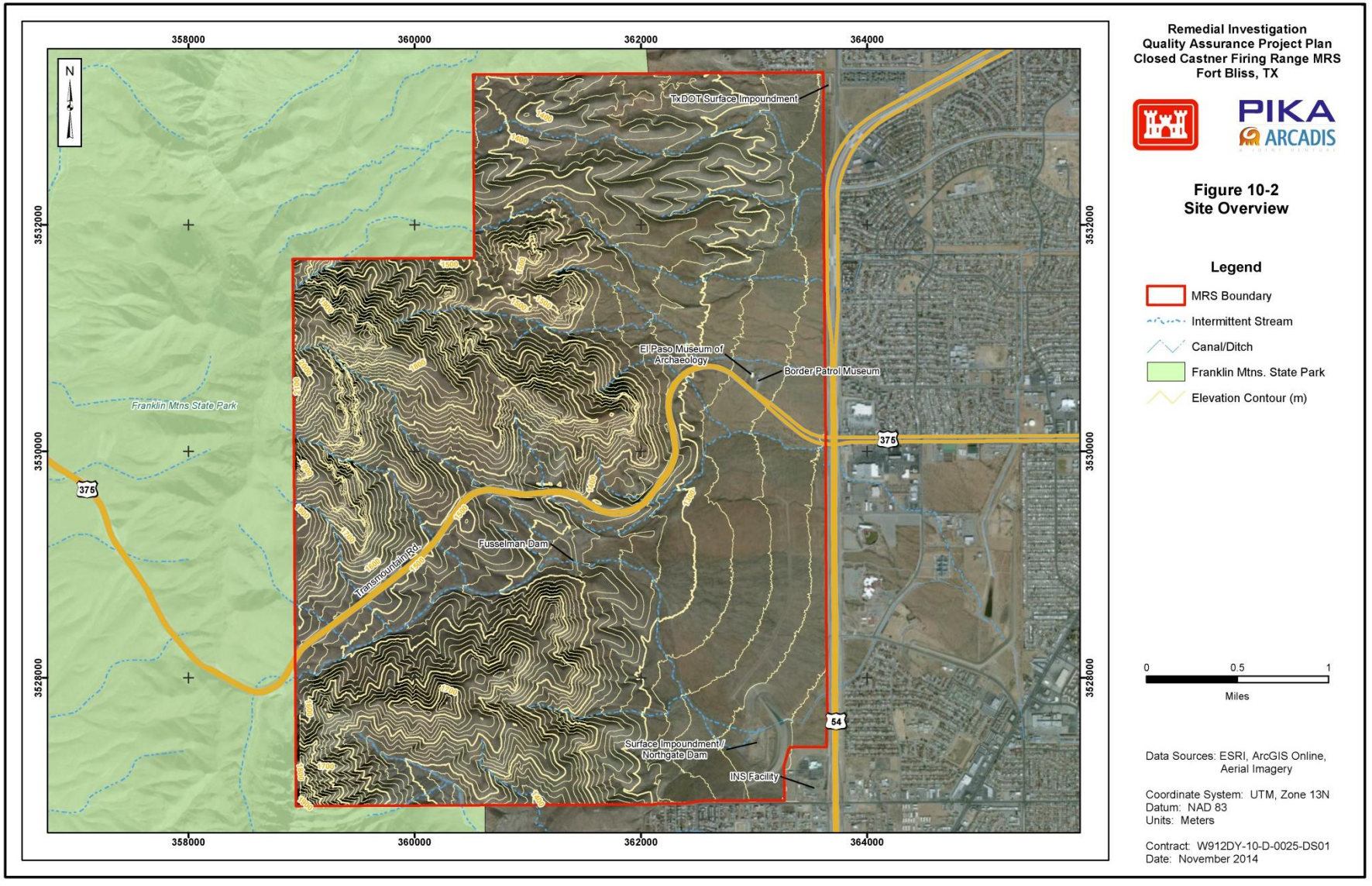
RI Project Objectives

- Gather sufficient information to characterize the Closed Castner Firing Range
  - Determine the type (nature), density and distribution (extent) of MEC
  - Determine the concentrations and extent of MC
- Assess potential risks/hazards to human health and safety, and the environment
- Ensure sufficient data collected to develop remedial alternatives for Feasibility Study phase

Castner Range Tasks

Task	Tentative Dates
Implement Technical Project Planning (TPP)	
TPP Meetings 1 and 2	Completed
TPP Meetings 3 and 4	Field Work / RI Report
Develop Planning Documents	
Work Plan	Completed
Explosives Site Plan	In Progress
Community Relations Support	
Castner Range Public Meetings	13 May 2015, November 2015
Fort Bliss Restoration Advisory Board (RAB) Meetings (all sites)	2015, 2016
Field Investigation	June 2015 – January 2016
Final RI Report	December 2016

Closed Castner Firing Range



Land Use

- Current use: closed military training range
  - undeveloped
  - restricted public access
- Future use not established at this time
  - RI will use the most conservative approach for planning

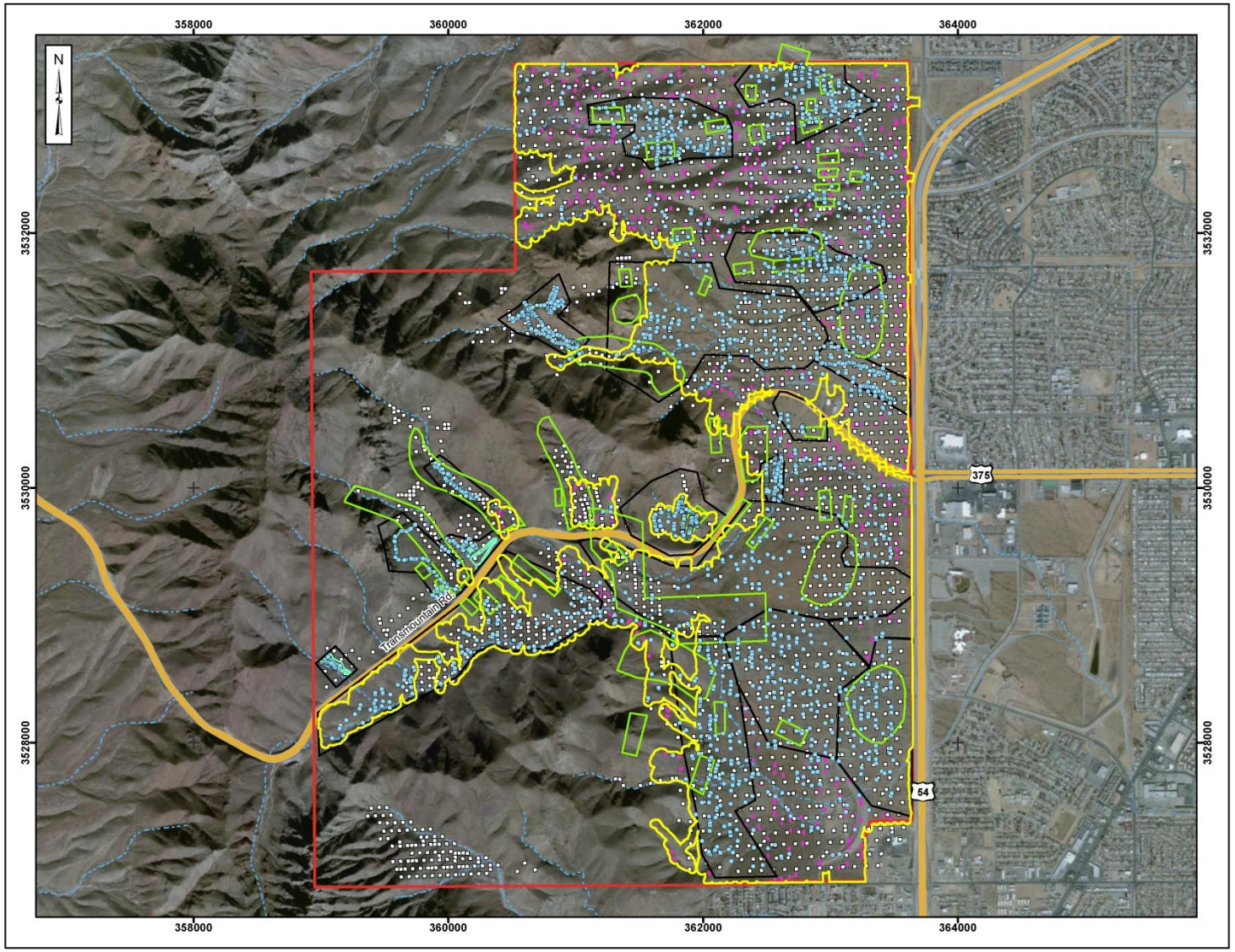
Large warning sign posted at Castner

MEC and MC Overview

- Munitions:
  - Flares, signaling items
  - Simulators
  - Obscurant smoke
  - Grenades (hand, rifle, smoke)
  - Small, medium, and large caliber projectiles (20mm to 155mm)
  - Mortars (3-inch Stokes, 4.2-inch, and 81mm)
  - Rockets (2.36-inch and 3.5-inch)
  - Small arms
- MC:
  - Metals, explosives, perchlorate

Live 105mm Projectile, M314 Series with Fuze found during January 2004 investigation

Previous MEC Investigations



Remedial Investigation
Quality Assurance Project Plan
Closed Castner Firing Range MRS
Fort Bliss, TX

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Figure 10-4
Previous MEC Site Characterization Investigations

Legend

- MRS Boundary
- WAA Area of Interest
- 2010 WAA DGM Investigation Area
- 2010 WAA Intrusive Investigation Transect
- 2010 WAA Analog Transect
- 2010 WAA Excavated Anomaly
- 1994 ESHI Investigation Area
- 1998 CMS Investigation Area
- Intermittent Stream
- Canal/Ditch

Removal actions and other studies have been conducted at the Closed Castner Firing Range MRS since the 1970s. Because the exact spatial locations of the early studies are unknown, studies conducted prior to 1994 are not depicted on this figure.

0 0.5 1
Miles

Data Sources: ESRI, ArcGIS Online, Aerial Imagery

Coordinate System: UTM, Zone 13N
Datum: NAD 83
Units: Meters

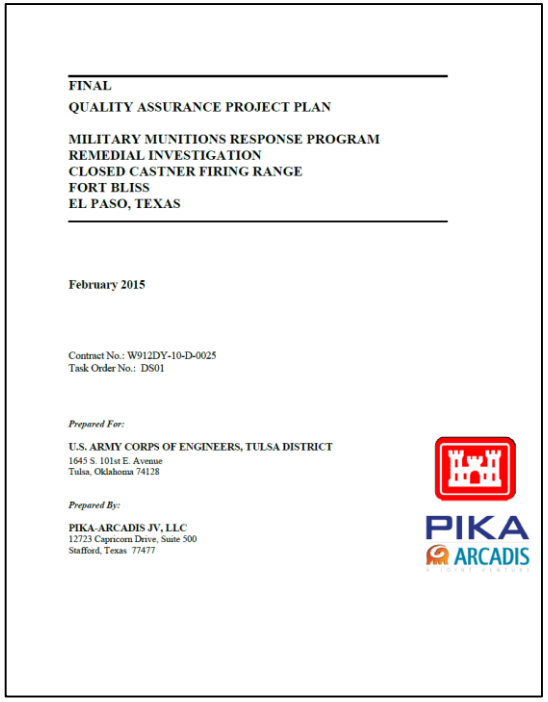
Contract: W912DY-10-D-0025-DS01
Date: November 2014

General RI Approach

- Includes MEC and MC investigation
- Evaluate and utilize previous work, especially:
  - 2012 Wide Area Assessment (WAA) Field Demonstration Report
  - 2013 Incremental Sampling Methodology (ISM) Field Demonstration Report
- Collect additional MEC and MC data

Quality Assurance Project Plan

- "Work Plan" for the RI
- Evaluated and defined investigation area
- Conducted quality review of previous work
  - data sufficient to use for the RI
- Reviewed by TCEQ – concurs with approach
- Finalized March 2015



FINAL

QUALITY ASSURANCE PROJECT PLAN

MILITARY MUNITIONS RESPONSE PROGRAM
REMEDIAL INVESTIGATION
CLOSED CASTNER FIRING RANGE
FORT BLISS
EL PASO, TEXAS

February 2015

Contract No.: W912DY-10-D-0025
Task Order No.: DS01

Prepared For:

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What We Know

- MEC
  - Boundary of target areas on eastern side of Castner Range
  - Target areas are delineated to an acceptable accuracy level
  - Nature and extent of MEC inside the target areas
- MC
  - Higher MC concentrations found within target areas
  - Not present above screening levels outside of target areas

What We Need to Determine

- Presence of target areas, if any, in western areas
- Verify low MEC density outside of target areas
- Migration potential of MEC (and MC) from higher to lower elevation areas
- Potential for MC presence in subsurface soil, surface water, and sediment
- Overall risk to people and the environment

All of these will be determined through the field investigation

MEC Investigation – Phase 1

- **Visual Surveys**
  - Conducted in mountainous areas
  - Meandering path surveys
  - Handheld global positioning system (GPS) and metal detector
  - Make visual assessments of munitions and target areas, record anomalies, and record findings
  - No intrusive investigation (no digging)

Handheld Metal Detector

What Is An “Anomaly” ?

- Something that deviates from what is standard, normal, or expected
  - In MMRP, an anomaly is something metallic in the ground that is not expected to be there
  - It may be a munition, or it may be random junk
- How do you find one?
  - “Analog” methods – metal detectors
    - Makes a noise when you find one
  - “Digital” methods – digital geophysical mapping (DGM)
    - Produces an electronic map

MEC Approach – Phase 2

- **Investigation of existing anomalies**
  - Placed in flatter areas of site
  - 1750 100-ft transect segments selected
  - Relocate anomalies with GPS and hand-held metal detector
  - Dig with hand tools

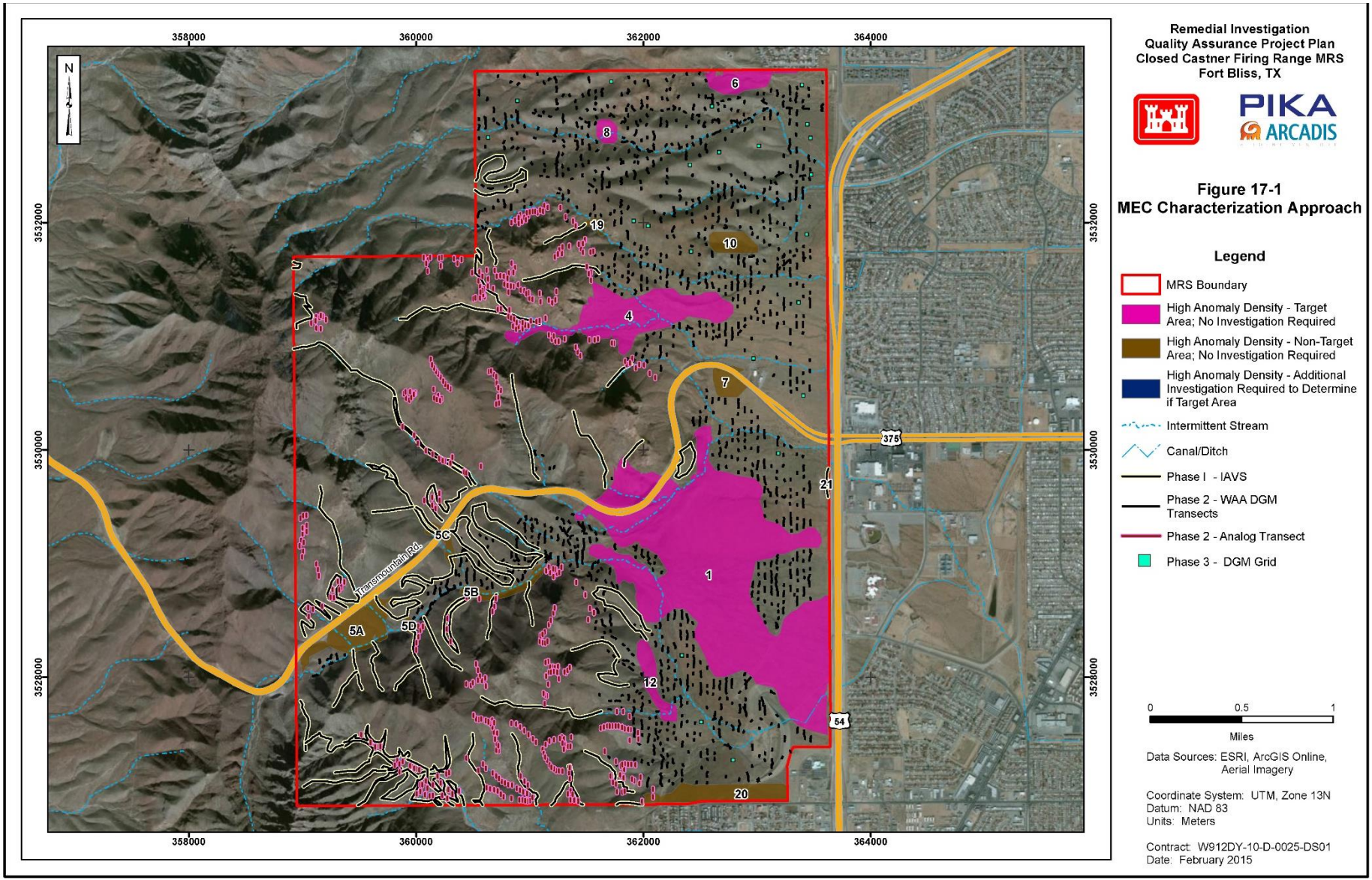
- **Analog (“mag and dig”) transects**
  - Placed in moderate terrain areas
  - 452 randomly placed100-ft transect segments
  - Use hand-held metal detector to identify anomalies
  - Dig with hand tools

MEC Approach – Phase 3

- **DGM Grids**
  - Placed in flatter terrain
  - 22 grids (100 foot x 100 foot)
  - DGM surveys with highly accurate GPS positioning
  - Data recorded electronically, then processed by computer to select anomalies for investigation
  - Relocate anomalies and dig with hand tools

DGM Equipment

MEC Investigation Areas



MEC Disposal

- MEC located during the investigation must be destroyed
- Expected to be minimal
- Safe procedures will be implemented to protect public
- Notifications to be made to Fort Bliss and local authorities

MC Approach

- Further sampling and analysis required inside target areas and other media
- Elements include:
  - Incremental Sampling Methodology (ISM)
  - Discrete sampling (soil, surface water, sediment)
  - Sampling associated with MEC
- Lead, copper, zinc (metals) primary MC

MC

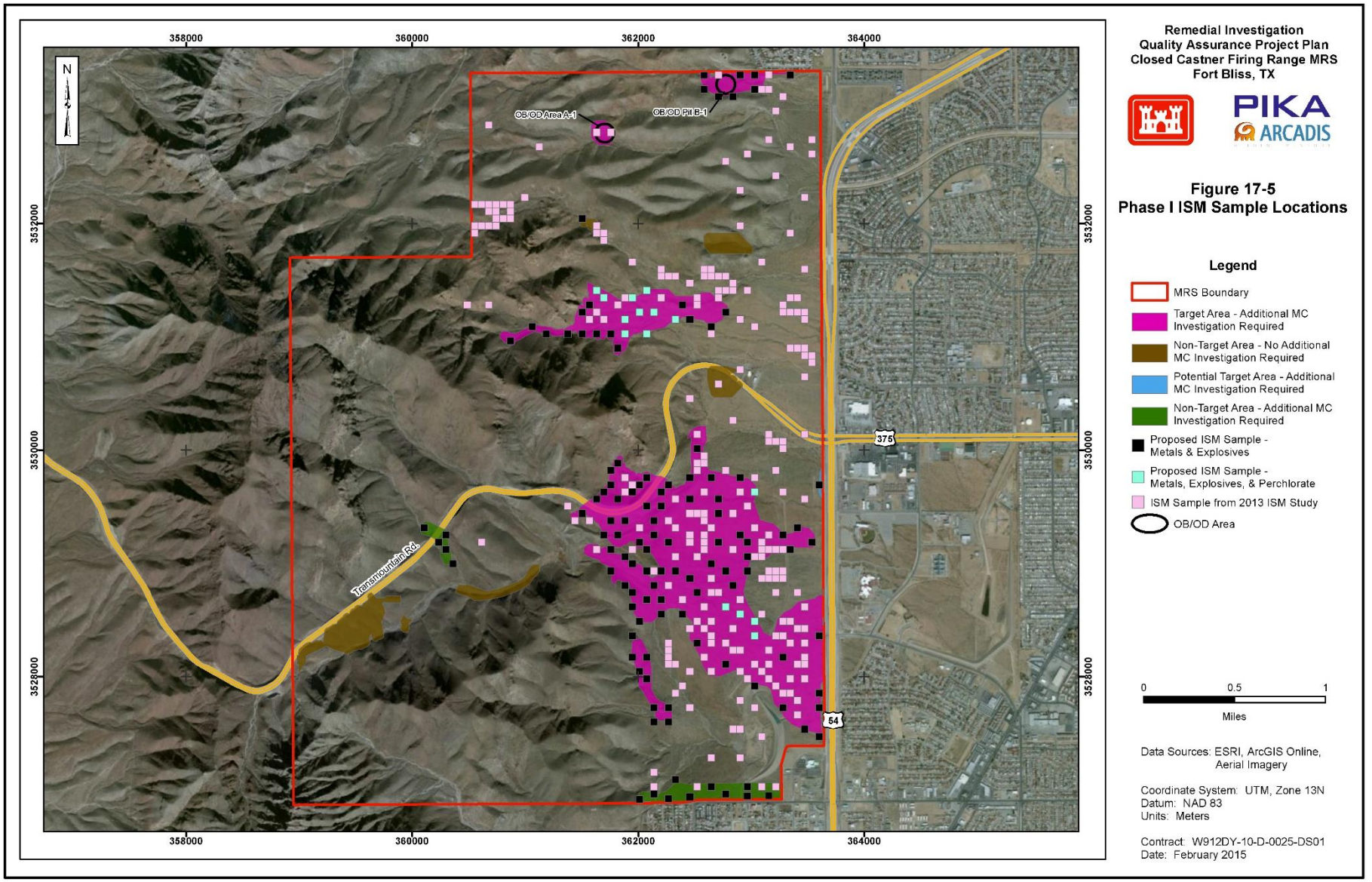
- Explosives
  - Materials inside munitions
  - 16 separate constituents including TNT, RDX
- Metals
  - Small arms ammunition, munition casings
  - Antimony, arsenic, beryllium, copper, lead, nickel, zinc
- Perchlorate
  - Propellant used in rockets

Example of MC deposition

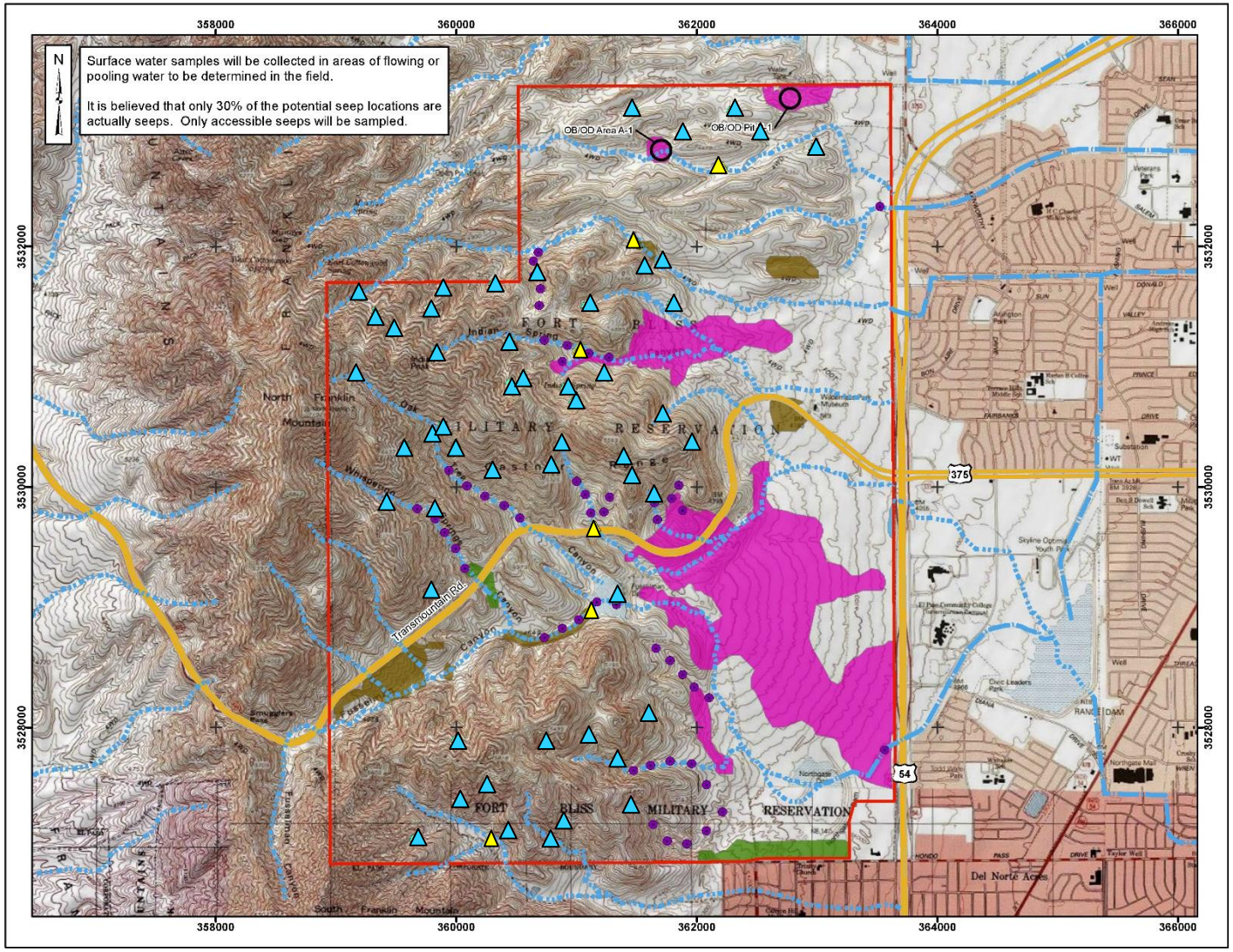
MC RI Activities - Phase I

- Surface Soil Sampling
  - Area Wide Horizontal Delineation
    - Using incremental sampling approach
    - 149 sample locations, located in areas previously not investigated
  - Small arms range backstop berms – 10 locations
- Drainage Area Sampling (arroyos)
  - Sediment samples – up to 50 samples
  - Surface water samples – up to 18 samples

ISM Soil Sampling Locations



Surface Water and Sediment Sampling Locations



MC RI Activities - Phase II

- New Sampling
  - If new target area identified in mountains
    - Collect one ISM sample per target area
- "Step Out" Sampling
  - Site-wide delineation exceedances
  - Arroyo sediment exceedances
- Second surface water sampling event
- MEC find

MC RI Activities - Phase III

- Vertical delineation
  - Discrete borings on eastern side of MRS
  - Up to 15 soil borings to 20 feet in depth
    - Conducted within target areas exhibiting elevated MC concentrations
    - Up to three borings per decision unit, sample 3 depth intervals
- Groundwater assessment (if necessary)
  - Up to three monitoring wells installed and sampled
  - Located near areas with elevated subsurface soil MC concentrations

Resource Preservation

- Natural and cultural resources within Castner will be protected during all field operations
- Minimal site disturbance
- Fort Bliss Conservation Branch involved in work plan development
- No known threatened and endangered species present on Castner Range
- Archaeologists present for work in some project areas

Munitions Safety

- UXO is dangerous, no matter the size!!
- UXO can look like everyday objects

More UXO safety information is available at:
http://www.denix.osd.mil/uxo/

Upcoming Project Schedule

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Open Discussion

Thank You For Attending!!

And Remember: