U.S. ARMY
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Former Sunflower Army Ammunition Plant Restoration Advisory Board Meeting

22 May 2025

G-9 Mission

The DCS, G-9 leads integration across the Army enterprise to modernize installations, enhance quality of life, and develop and implement policies, plans, and programs that enable the Army to recruit, train, deploy, fight, and win.

G-9 Vision

Dedicated professionals driving excellence across the Army Installations Enterprise to support Soldiers, families, and Army civilians wherever they train, work, and live.

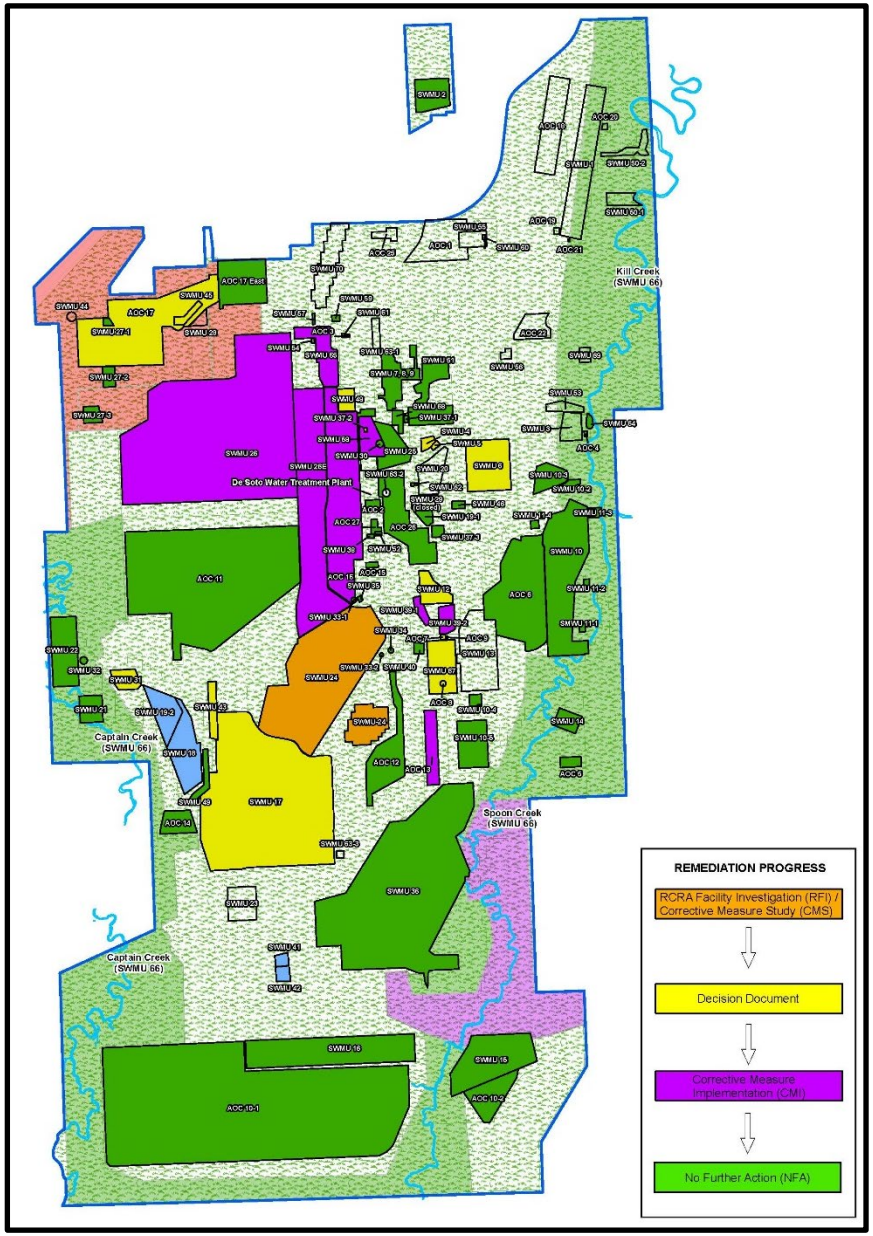
Agenda

- **Old Business**
  - Approve February RAB Meeting Minutes
- New Business
  - Next RAB Meeting (Date and Time)
    - August 28th 6:00 PM
- Environmental Update
- Agenda for the next RAB meeting
- Questions from the RAB
- Questions from the public
- Close the meeting

Old Business

- Approve February RAB Meeting Minutes
  - Edits
  - Approval

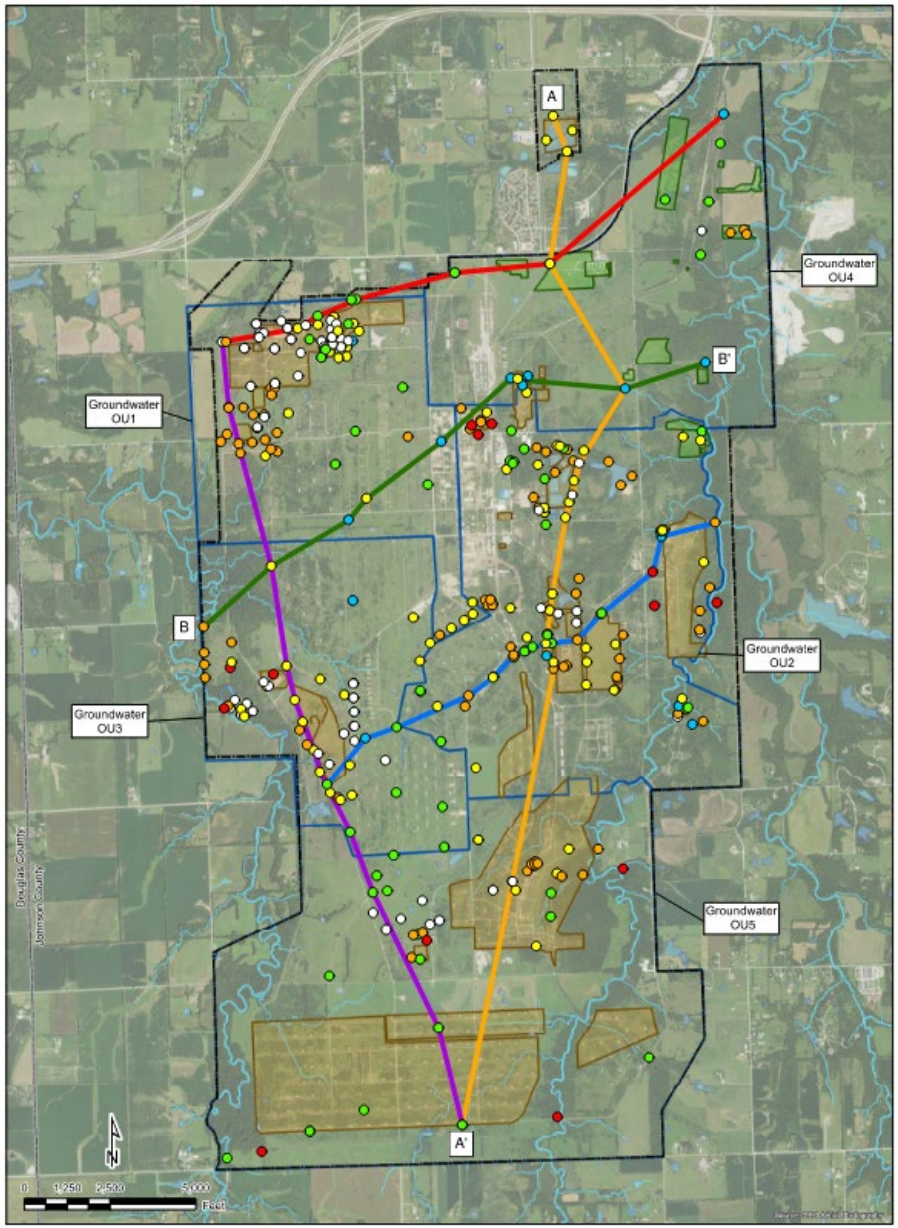
- Next RAB Meeting
  - The fourth Thursday is August 28th



Legend
- RFI/CMS
- Decision Document
- CMI
- NFA
- LTM
- Property Boundary
- Stream
- White Space / SWMU / AOC (Removed From Permit)
- Johnson County Parks
- Kansas State University Land
- University of Kansas Land

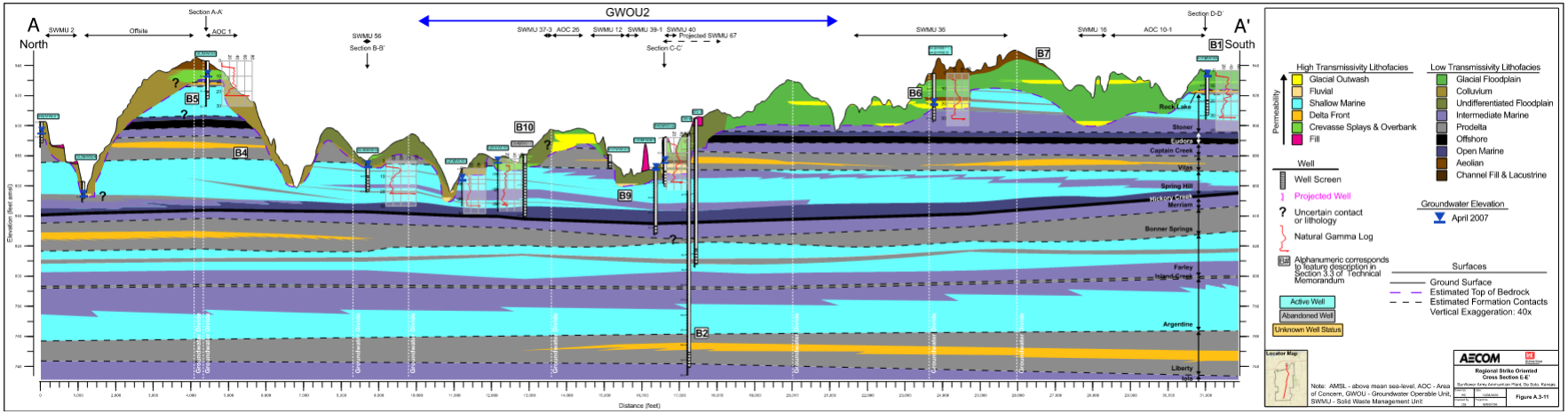
2,300 1,150 0 2,300

Characteristics of Site Wide Groundwater



Cross-Section Overview

Site Cross-Sections

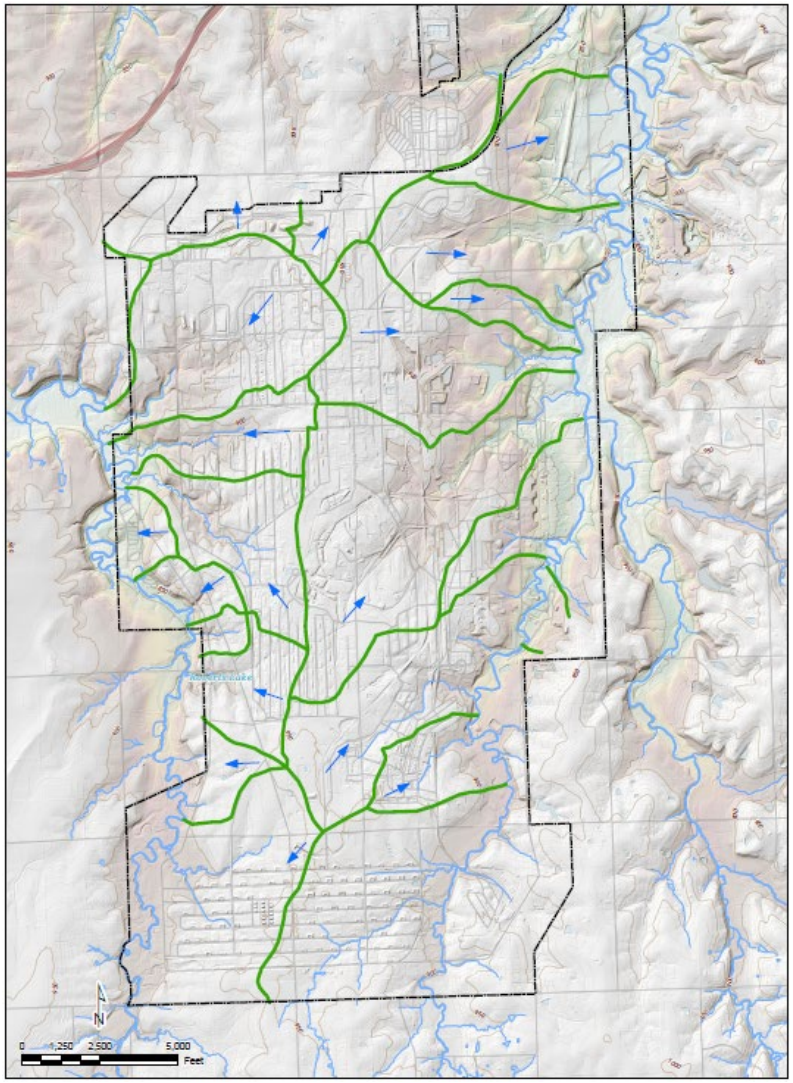


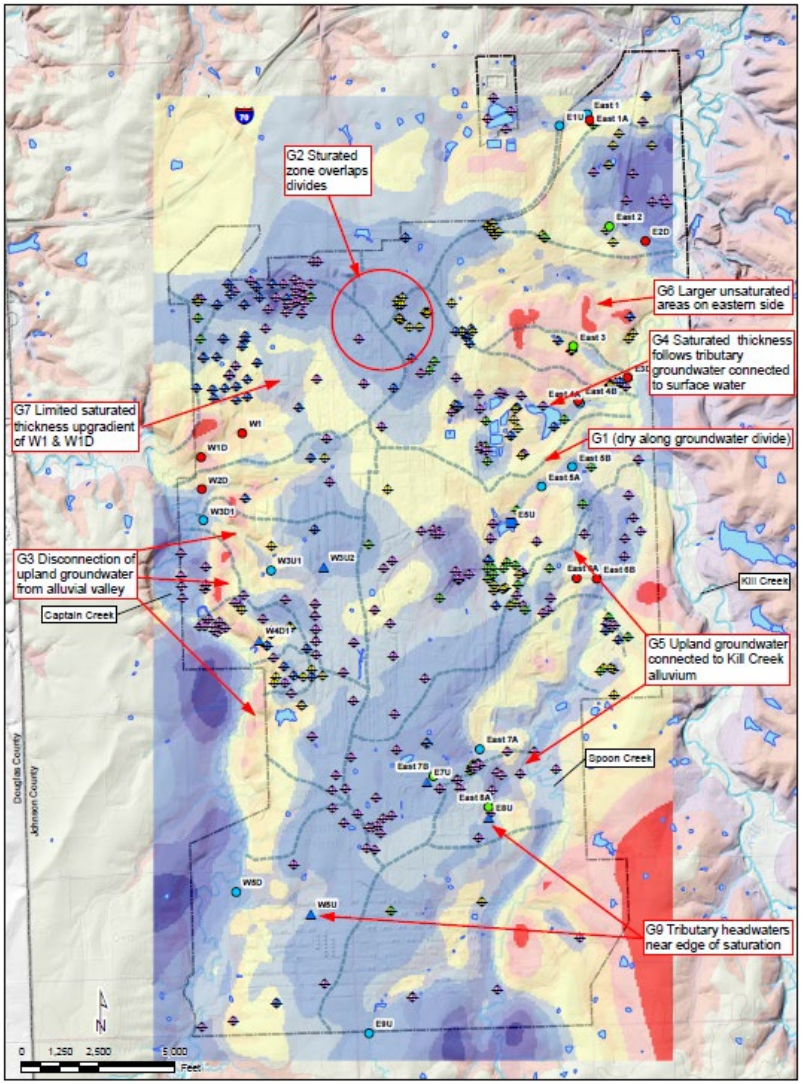
• Lithology Takeaways

*[scientific term used to describe the physical characteristics of rocks or soil layers]

- The soil layer above the bedrock (called "overburden") is thinner along the northern, eastern, and western edges of the site. It gets thicker toward the middle and southern areas.
- The depth at which solid bedrock is found varies across the site, from as shallow as 6 ft to as deep as 45 ft below the ground surface.
- On average, bedrock is typically found between 15 and 25 ft deep.
- Monitoring wells at the site - used to track groundwater and possible contamination - range in depth from 6 to 90 ft below the surface.
- Most of the wells located in the overburden are around 20 ft deep.
- Contamination has mostly been found in the overburden layer and in the shallow parts of the bedrock.
- The wells where contamination has been detected range from 14 to 50 ft deep, with most falling between 23 and 29 ft.
- The affected wells are evenly split between those located in the overburden and those in the bedrock.

General Groundwater Flow Direction and Saturated Thickness of the Overburden





2020 Surface Water Observations

- Start of flow
- Start of flow, pond
- Flowing
- Slight flow to standing
- Dry

- Monitoring Well Screened in Overburden
- Monitoring Well Screened Across Overburden and Bedrock
- Monitoring Well Screened in Bedrock
- Monitoring Well with Screen Interval Lithology Unknown
- Pond
- Groundwater basins
- Tributary

Saturated Thickness (ft)

- -40 - -30
- -30 - -20
- -20 - -10
- -10 - 0
- 0 - 5
- 5 - 10
- 10 - 15
- 15 -20
- 20 - 25

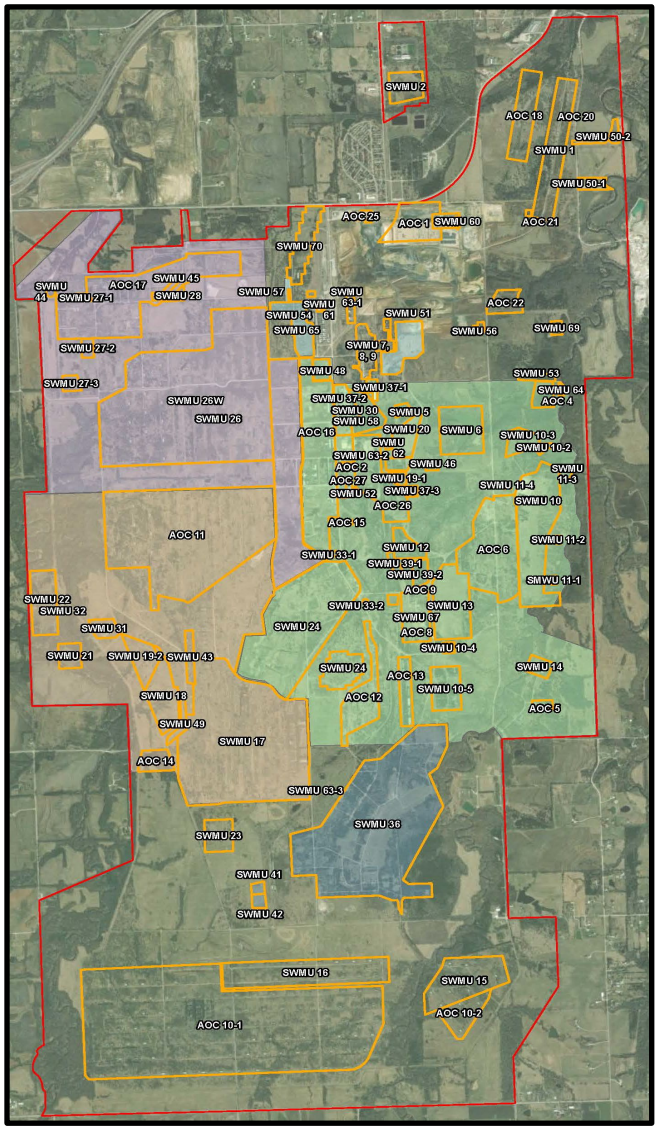
Dry areas

- Groundwater Flow Takeaways
  - Groundwater flow in the overburden is limited.
  - Much of the overburden groundwater is isolated as shown in the dry vs saturated areas.
  - Potability studies of the overburden and bedrock monitoring wells are being completed at select sites to determine the usability of overburden and shallow bedrock as a potable source of groundwater in terms of the amount of water a single well could produce in a day.

- Current/Ongoing RCRA Facility Investigations---Groundwater
  - OU5
    - SWMU 36
- RCRA Facility Investigations—surface water/sediment
  - SWMU 66
- Corrective Measures Implementation
  - AOC 17 sump removal

Environmental Update

Groundwater Operable Units

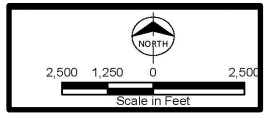


Legend

- SWMU/AOC Boundary
- SFAAP Site Boundary

Groundwater Operable Units

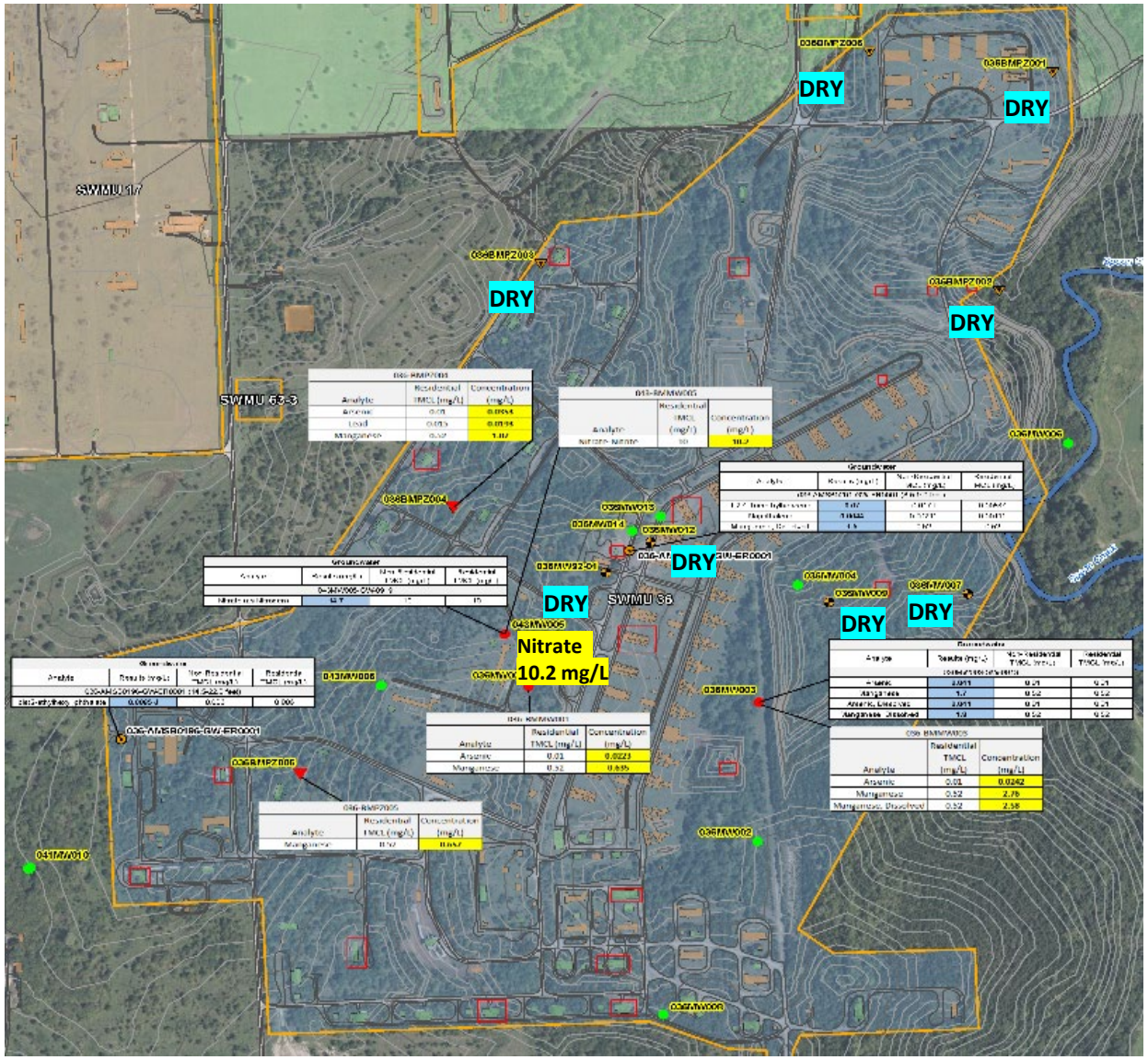
- GWOU 1
- GWOU 2
- GWOU 3
- GWOU 4
- GWOU 5



SWMU 36

Initial Data Review

- TMCL exceedance of nitrate in one well
- TMCL exceedances of total arsenic, lead, and manganese in four wells. Dissolved concentrations were below TMCLs, except for manganese in one well



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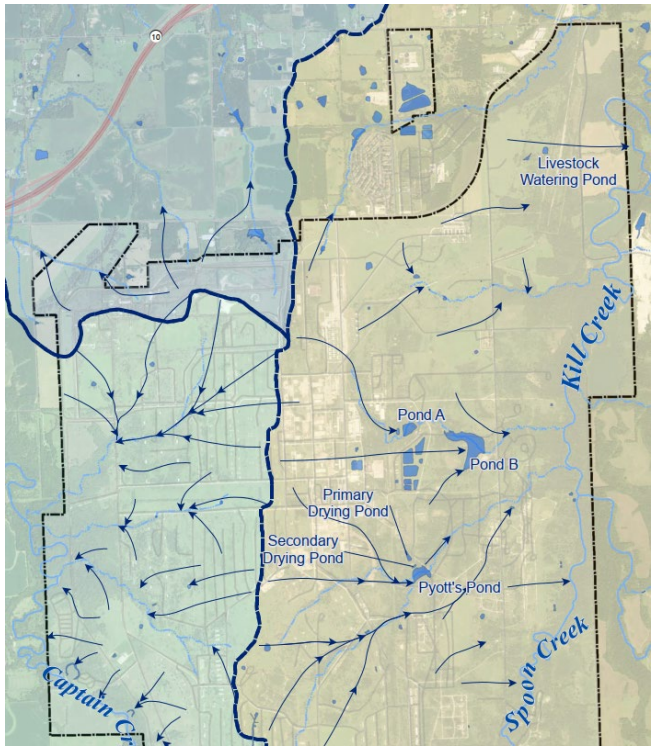
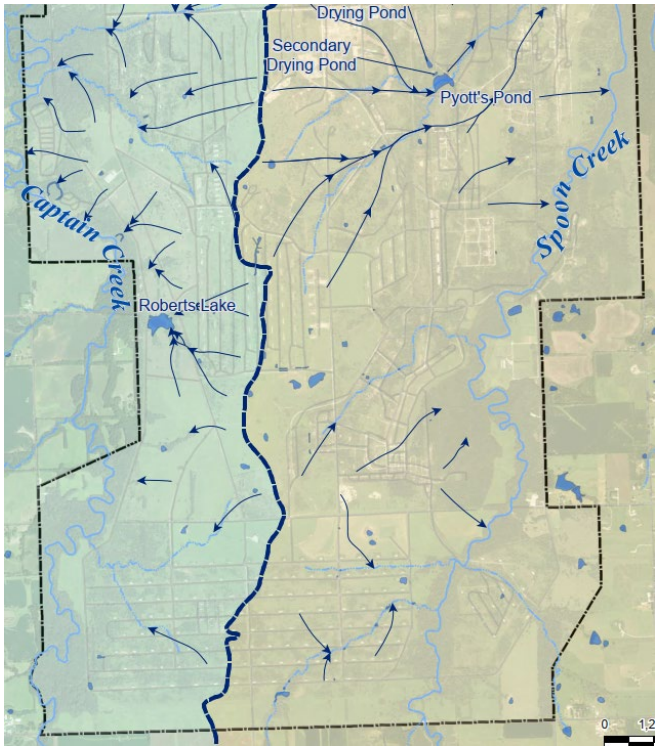
SWMU 66 – site wide stream study

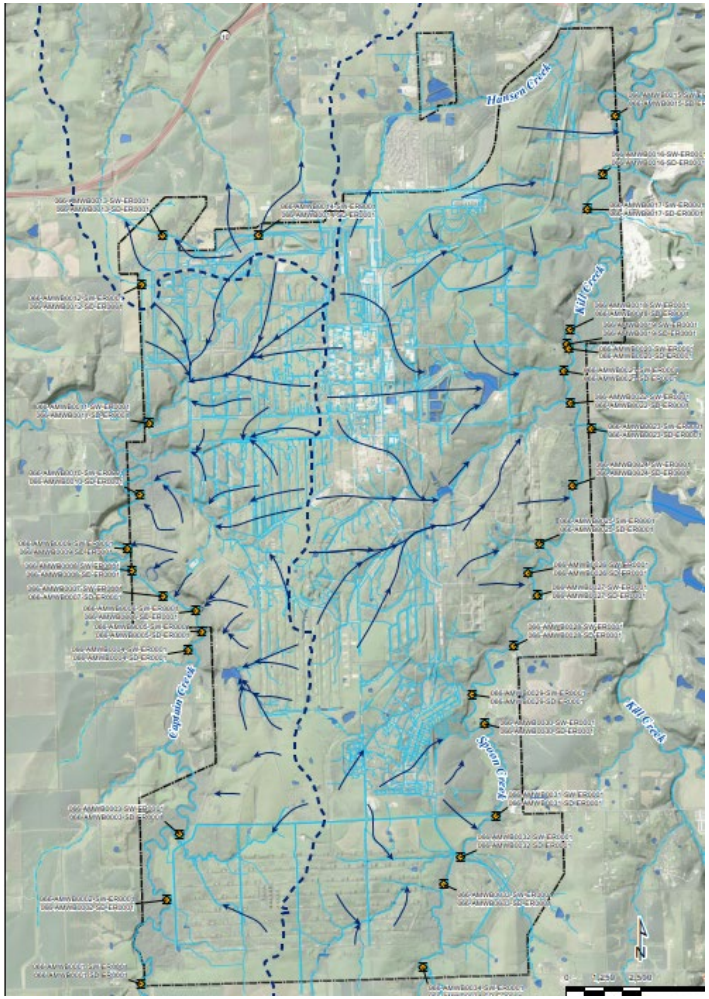


- During operation, hazardous substances and contaminants were released to the environment
- Surface water runoff from operational areas received limited or no controls prior to clean water regulations enacted in the 1970s
- Potential contaminants from SWMUs and AOCs may have migrated to and impacted streams and creeks
  - Captain Creek – Western SAAP
  - Kill Creek – Northeast SAAP
  - Spoon Creek – Southeast SAAP



SWMU 66 – site wide stream study

- Site wide stream study was completed in 2003 to determine whether historical activities at SAAP impacted sediment and surface water quality in major drainages (Captain, Kill and Spoon Creeks) that convey surface water runoff from the installation
  - Metals (beryllium, cadmium, copper, lead, mercury, zinc) were detected in surface water at levels exceeding their respective surface water quality standards (SWQS)
  - Eight pesticides were detected in surface water at levels exceeding their respective SWQS
  - Metals (arsenic, lead, manganese) were detected in sediment at levels exceeding the residential soil pathway
  - One pesticide was detected in sediment at levels exceeding the residential soil pathway
- Interim Corrective Measure Actions have since been completed throughout SAAP
  - Foundations, sewers, and soil removal actions
- This study will reassess potential impacts in drainages from these ICMs –
  - 34 co-located surface water and sediment locations.
  - Analytes include TAL metals, mercury, chromium VI, VOCs, SVOCs, TPH (LRH/MRH/HRH), PCBs, pesticides, herbicides, explosives, nitrate, sulfate, perchlorate



- Current/Ongoing RCRA Facility Investigations---Groundwater
  - OU5
    - SWMU 36
- RCRA Facility Investigations--soil
  - SWMU 66
- Corrective Measures Implementation
  - AOC 17 sump removal

AOC 17 CMI

- The interim CMI includes removal of 20 sumps, including draining and cleaning the sumps, demolition and removal, excavation of potentially contaminated soil, confirmation sampling, backfill and site restoration, with the intent to achieve closure of the sumps and surrounding soils based on residential criteria.

- **Sumps: C928-1/2/3; 9040 B/G/I; B900-1; A900-2; D900-2 and 9041 C/E/G**

Next RAB Meeting

- August 2025 Agenda
  - Discussion

Questions And Contact Information

Army Environmental Command:

Email for Public Affairs Officer: Usarmy.jbsa.imcom-aec.mbx.public-mailbox@army.mil

Website: https://aec.army.mil/sfaap

Qrcode:

Where To Find The Administrative Record:

Sunflower Army Ammunition Plant

35425 W. 103rd Street

De Soto, KS 66018

Scott.e.smith138.civ@army.mil

(202) 815-6779

Future RAB Meetings:

Dates will be posted on the AEC website.