



# **Mud Creek Watershed**

## **Watershed and Flood Prevention Operations (WFPO)**

**Public Information Meeting**

**Ansley, NE**

**February 5, 2024**

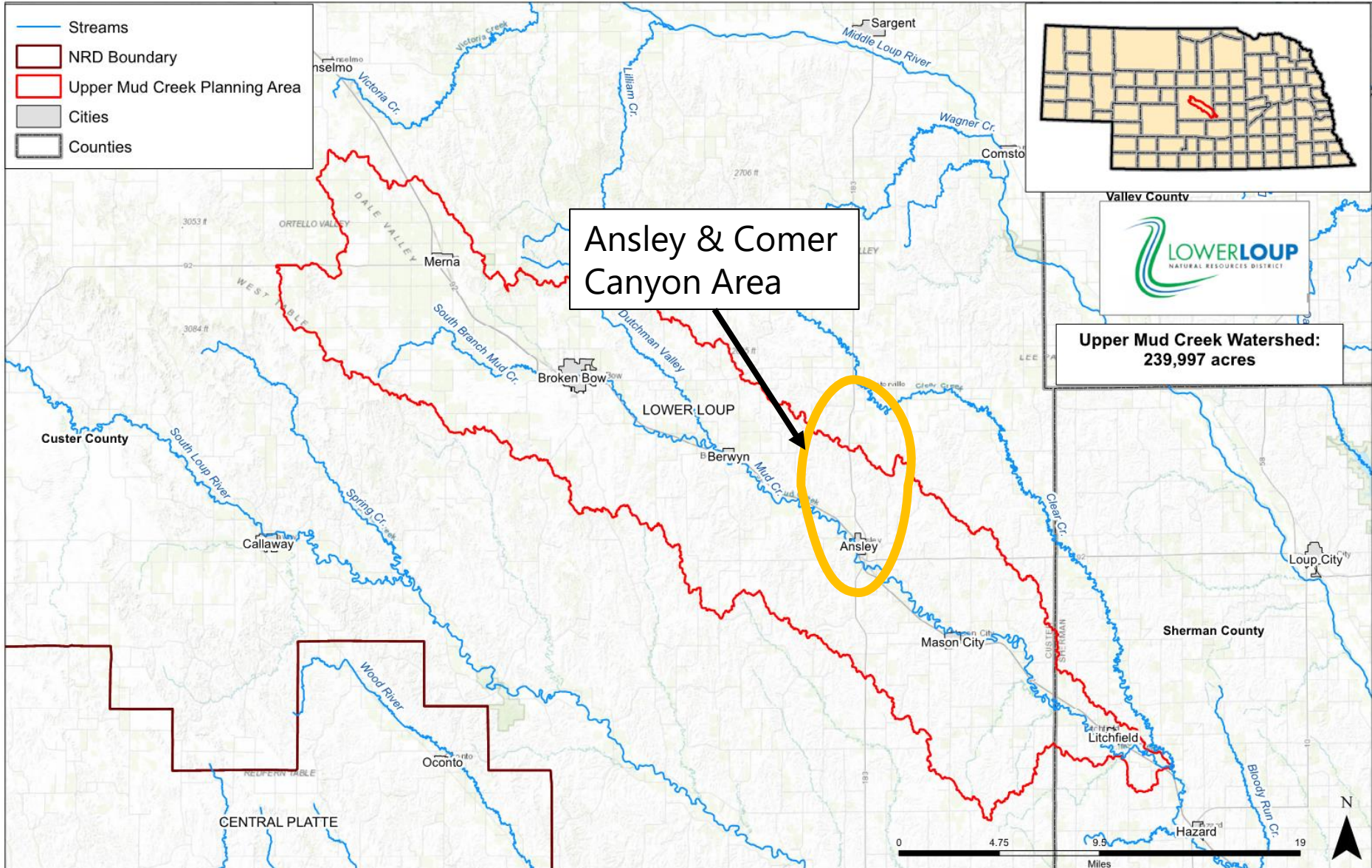


# Project Overview

- Address flooding throughout the Mud Creek Watershed
  - Communities / Counties
  - Agriculture
  - Infrastructure
- Planning and study phase only
- Focused on flooding from Mud Creek and major tributaries
  - Not interior drainage issues



# Watershed Area



# Project Schedule & Milestones

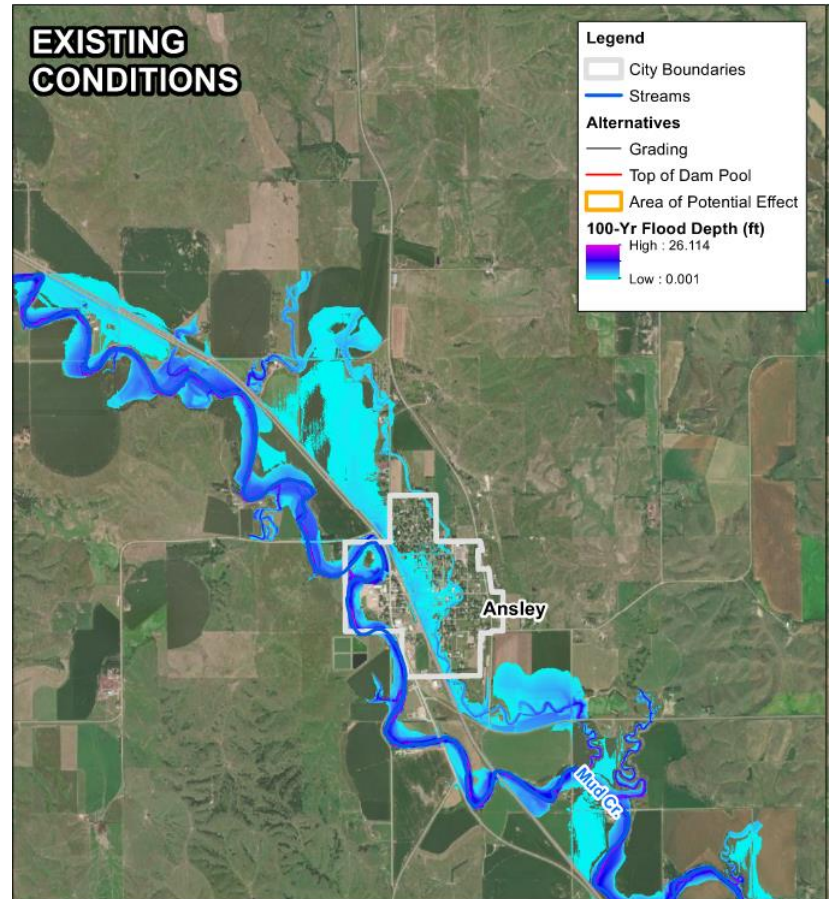
- **May 2020: Project Kickoff**
- Identification of flood risk areas
  - Review of existing data
  - Development of watershed-wide hydrology model
- **September 2020: Ansley Community Meeting**
- Screening of flood risk areas
- Evaluation of project alternatives
- **September 2021: Landowner meetings**
- Fall 2021 - Summer 2022: Field work
- **August 2022: Ansley Community Meeting**
- Fall 2022: Draft plan finalization
- January 2023: Plan submitted to National NRCS Watershed Management Center (comments received back April 2023)
- August 2023: Revised plan submitted to National NRCS Headquarters
  - December 2023: Comments received
- **December 2023: Begin public review process**



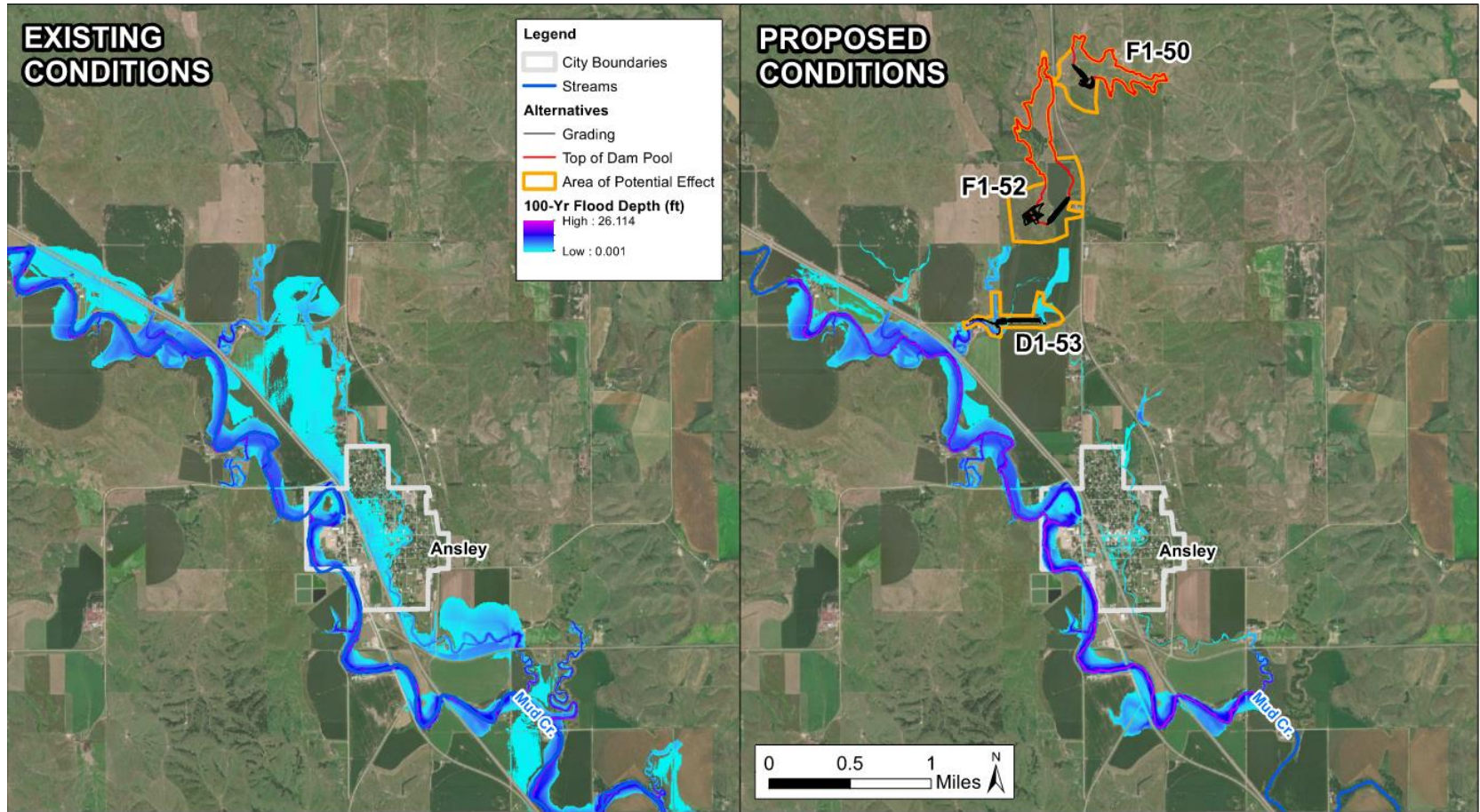


# Ansley Flood Risk Evaluation

- Goal is to address 100-year flood risk to community
- Primary risk is from the Comer Canyon drainage
- Leveraged USACE study and modeling
- Proposed solution
  - 2 dry dams
  - 1 diversion channel
- Detains runoff and diverts it to a western tributary and into Mud Creek
- A 3<sup>rd</sup> dry dam was sited, but later determined the cost wasn't justified

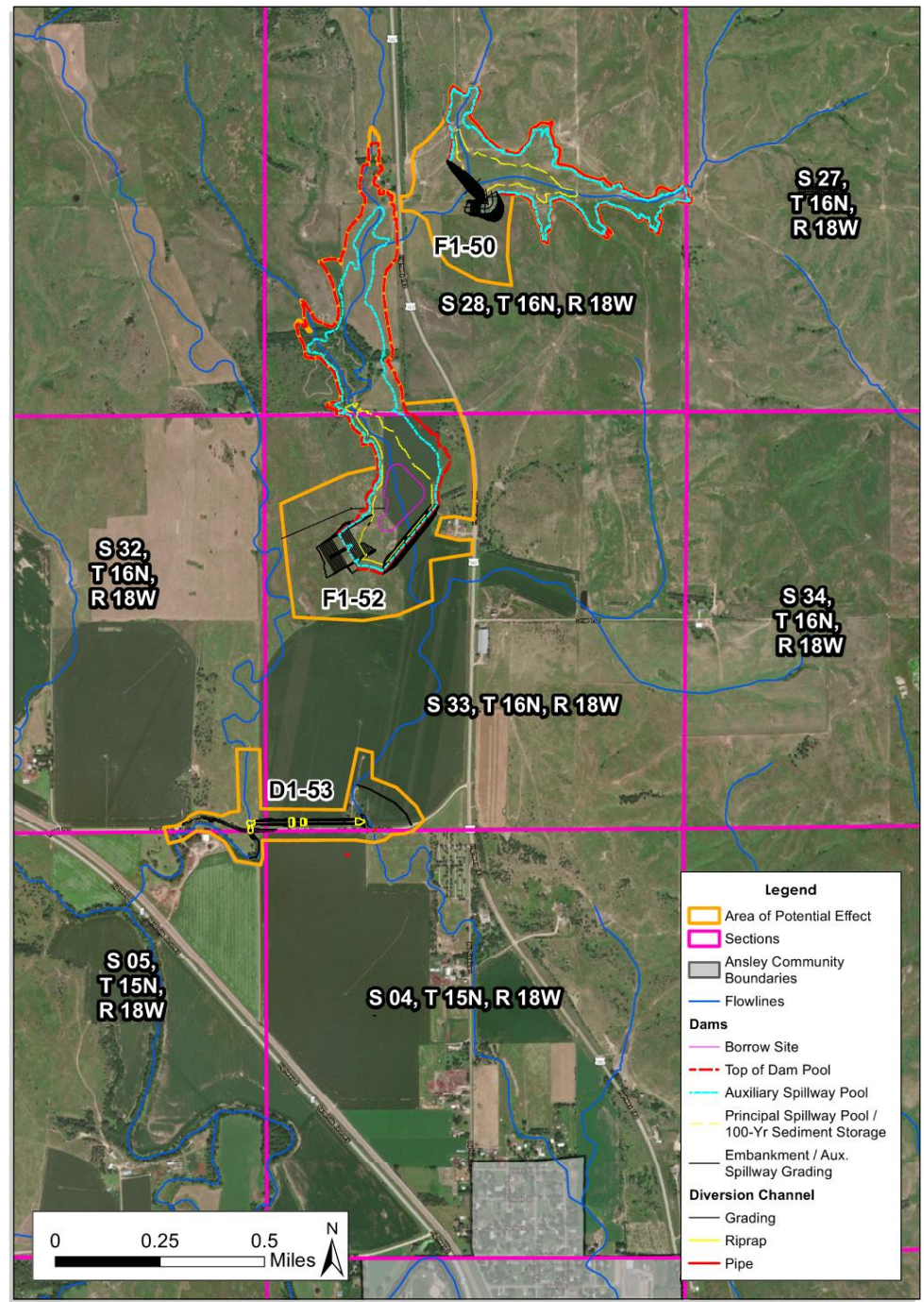


# Ansley Flood Risk Evaluation





# Dams and Diversion Channel Locations



# Summary and Next Steps

- Public Review Period
  - **Deadline extended to February 20, 2024**
  - Plan can be viewed, and comments submitted through the NRCS website here:
  - <https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/nebraska/projects-ready-for-public-comment-and-review>
- Address any comments received and finalize plan
- Lower Loup NRD to adopt plan – after final NRCS approval
  - Anticipated in Summer 2024
- NRD to work with NRCS to obtain funding for Design Phase
  - Construction phase is still several years away





# Big Picture Timeline & Project Phases

Total time for a typical NRCS watershed project: 5–10 years



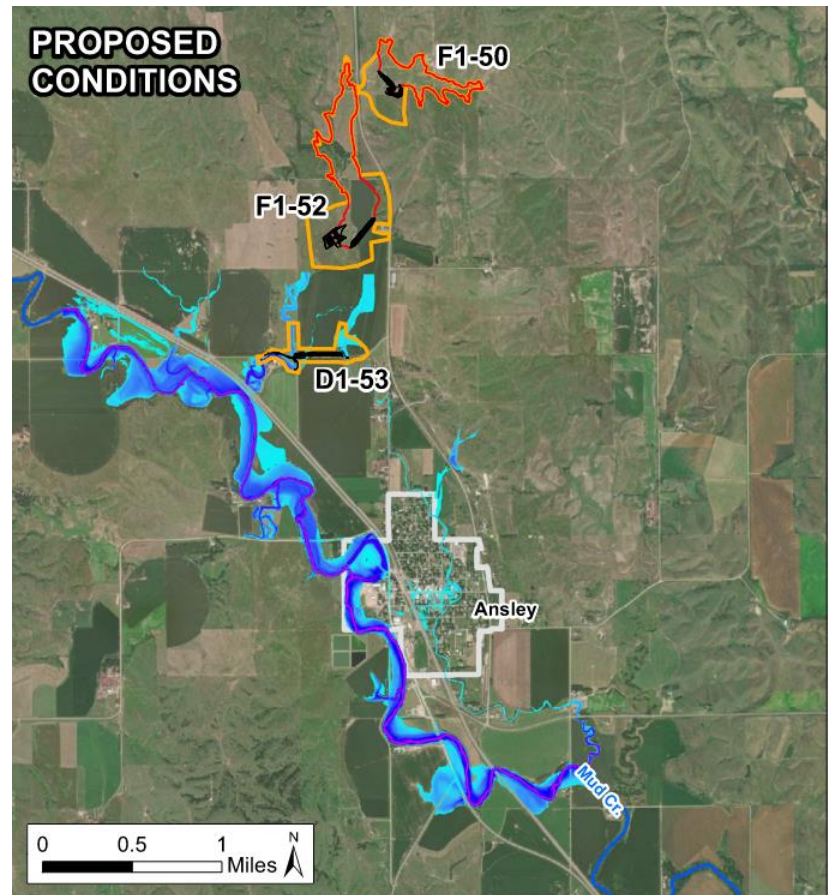
**Current Project = Planning Phase Only (Nearing Completion)**



# Future FEMA Floodplain Mapping

- Floodplain map (FIRM) changes may take several years **after construction**
- Suggest completing a Conditional LOMR (CLOMR) during the design phase
- FIRM map not changed until after construction and LOMR letter is approved by FEMA

LOMR = Letter of Map Revision



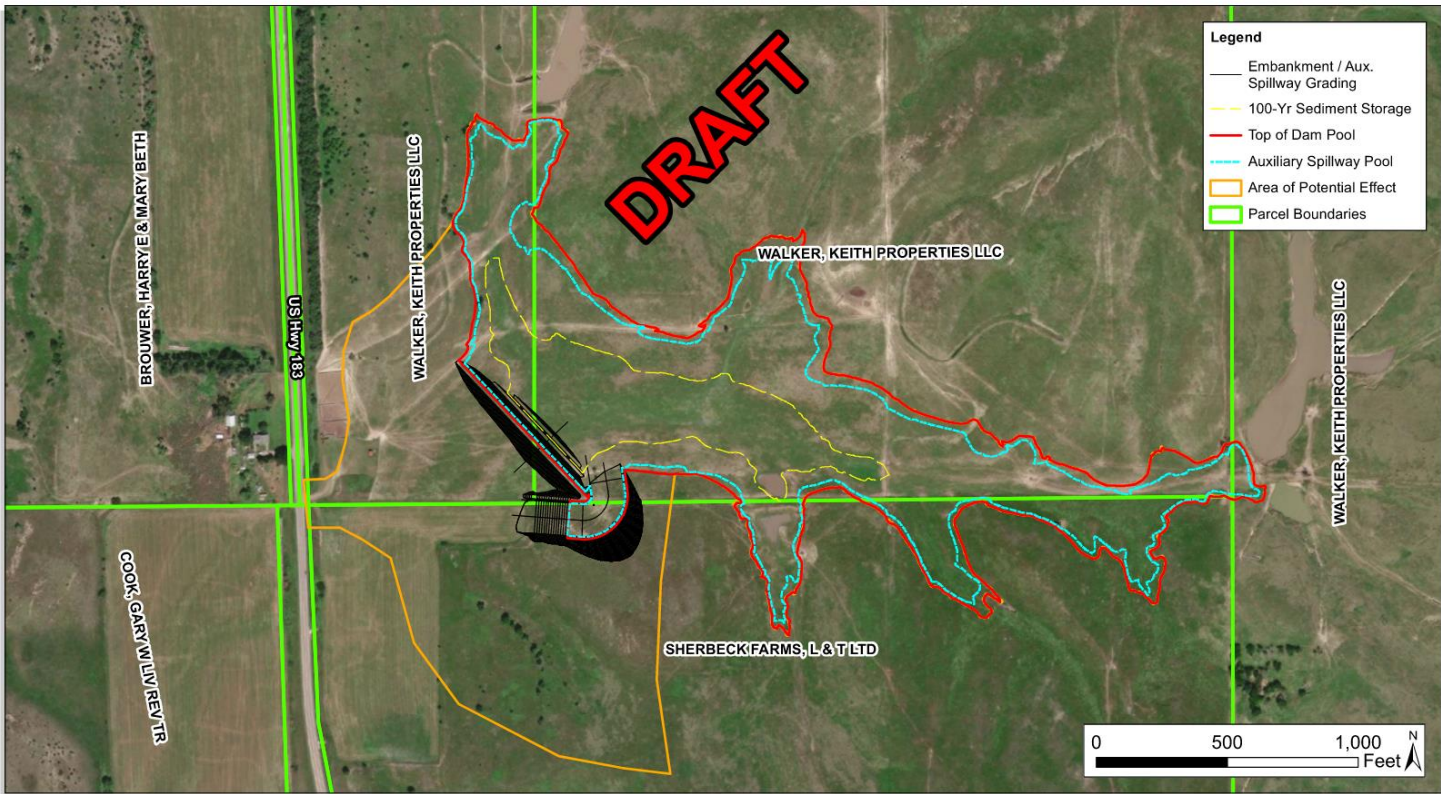





**Questions?**

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# Upper Dam (Site F1-50)



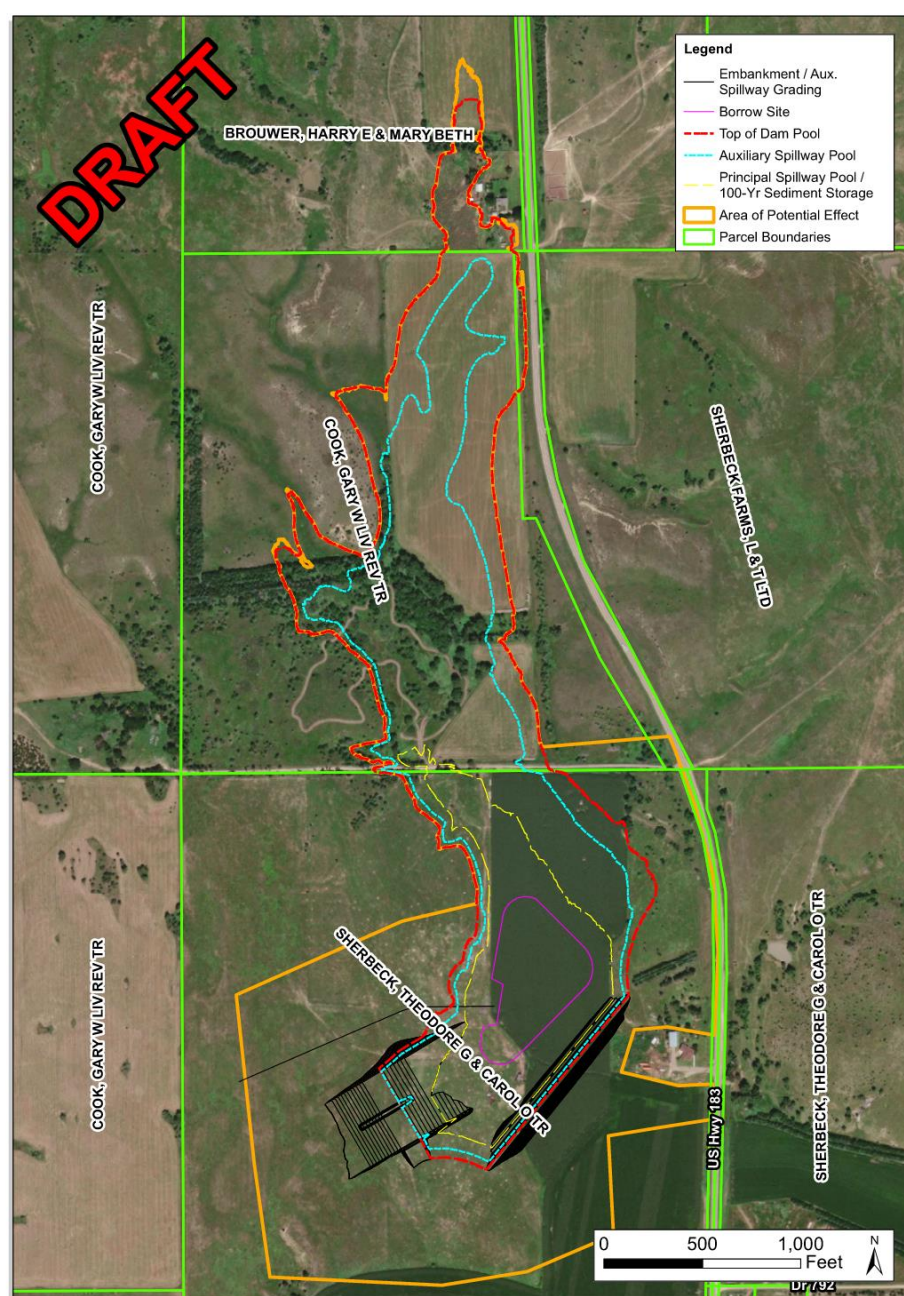
  
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## Ansley: Alternative F1-50

Upper Mud Creek WFPO Plan & EA

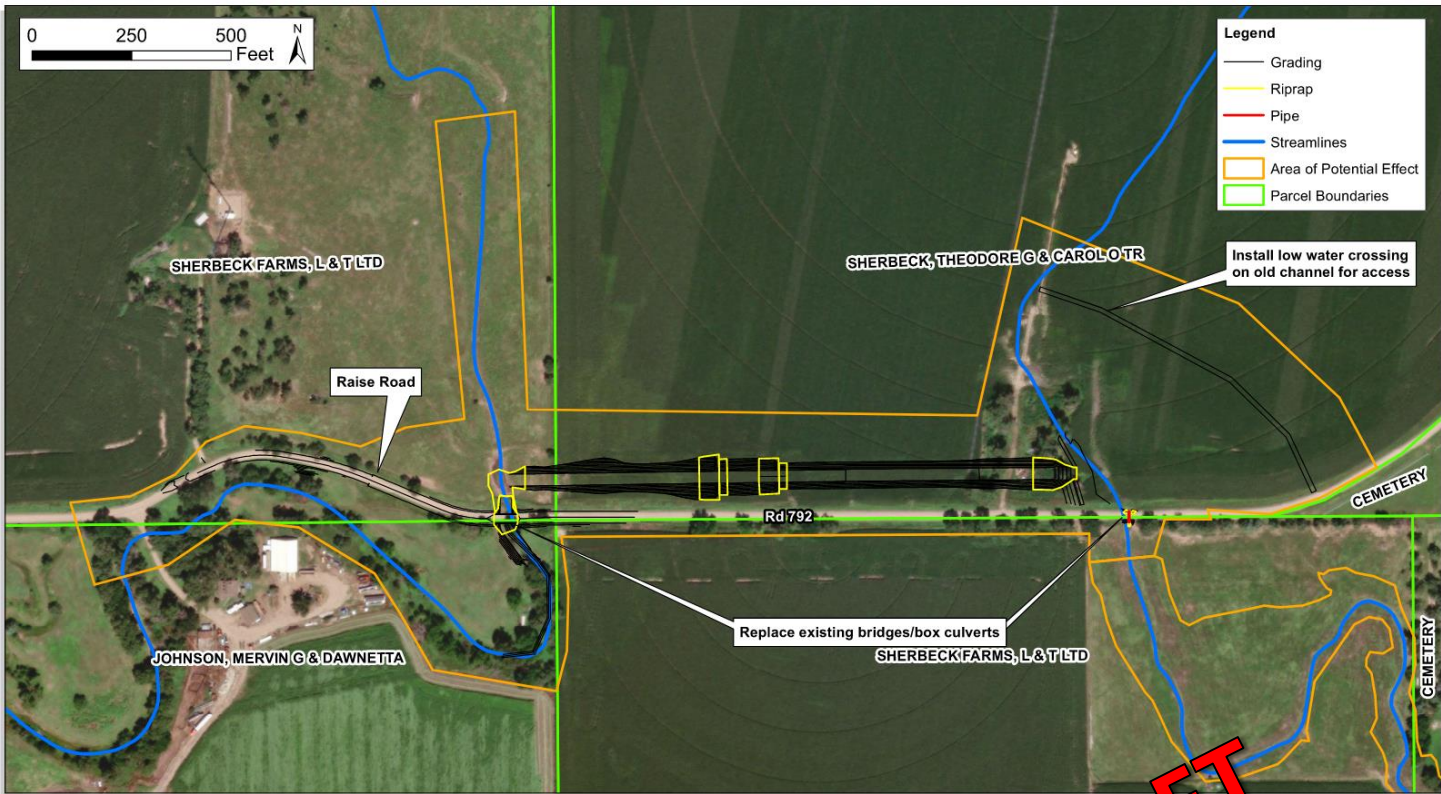


# Lower Dam (Site F1-52)





# Diversion Channel



  
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## Ansley: Alternative D1-53

Upper Mud Creek WFPO Plan & EA

**DRAFT**



# Other Notes

- F1-50 Dry Dam
  - 21 ft tall
  - No permanent pool
  - 46 acre maximum “top of dam” area
- F1-52 Dry Dam
  - 20.5 ft tall
  - No permanent pool
  - 85 acre maximum “top of dam” area
- Flood pools would drain over an 18–24-hour time period
- Diversion channel dimensions
  - 30 ft bottom width
  - 3:1 side slopes
  - 4 – 14 ft deep (average of 6 ft)
  - 125 ft top width (max) (70 ft average top width)
- Approximate Costs
  - F1-50 = \$2.0 M
  - F1-52 = \$2.5 M
  - Diversion = \$2.3 M
  - **Total = \$6.8 M**