

Gorman Creek Channel Restoration
Wabasha County, Minnesota
T 109N, R 11W, S 1



Symbol Legend

- Wabasha_County
- ★ Project Location

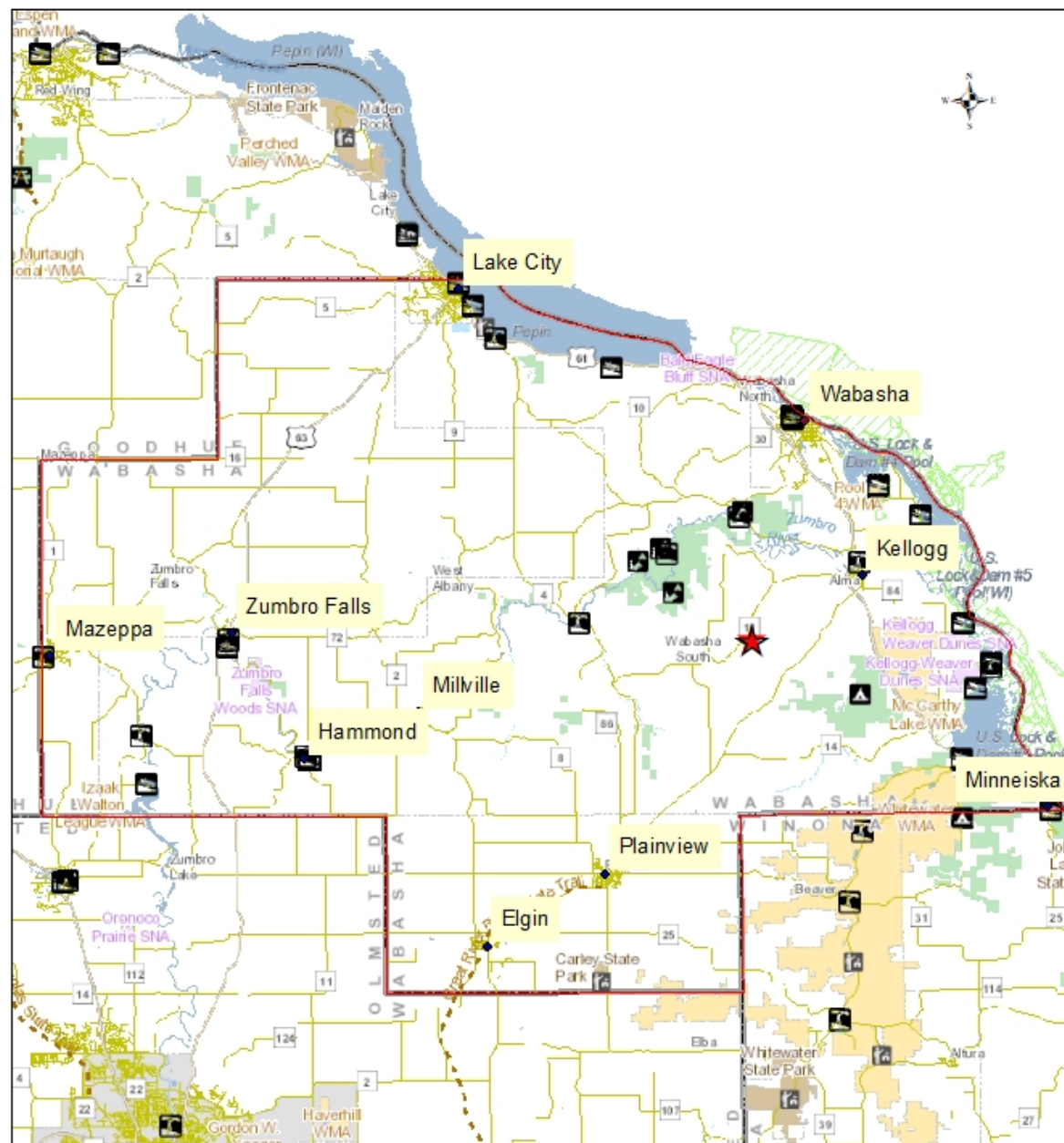






Figure 1. Project location in Wabasha County, MN

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Symbol Legend

-  Project Location
-  Gorman Creek (M-33)
-  Project Boundary
-  Flow direction

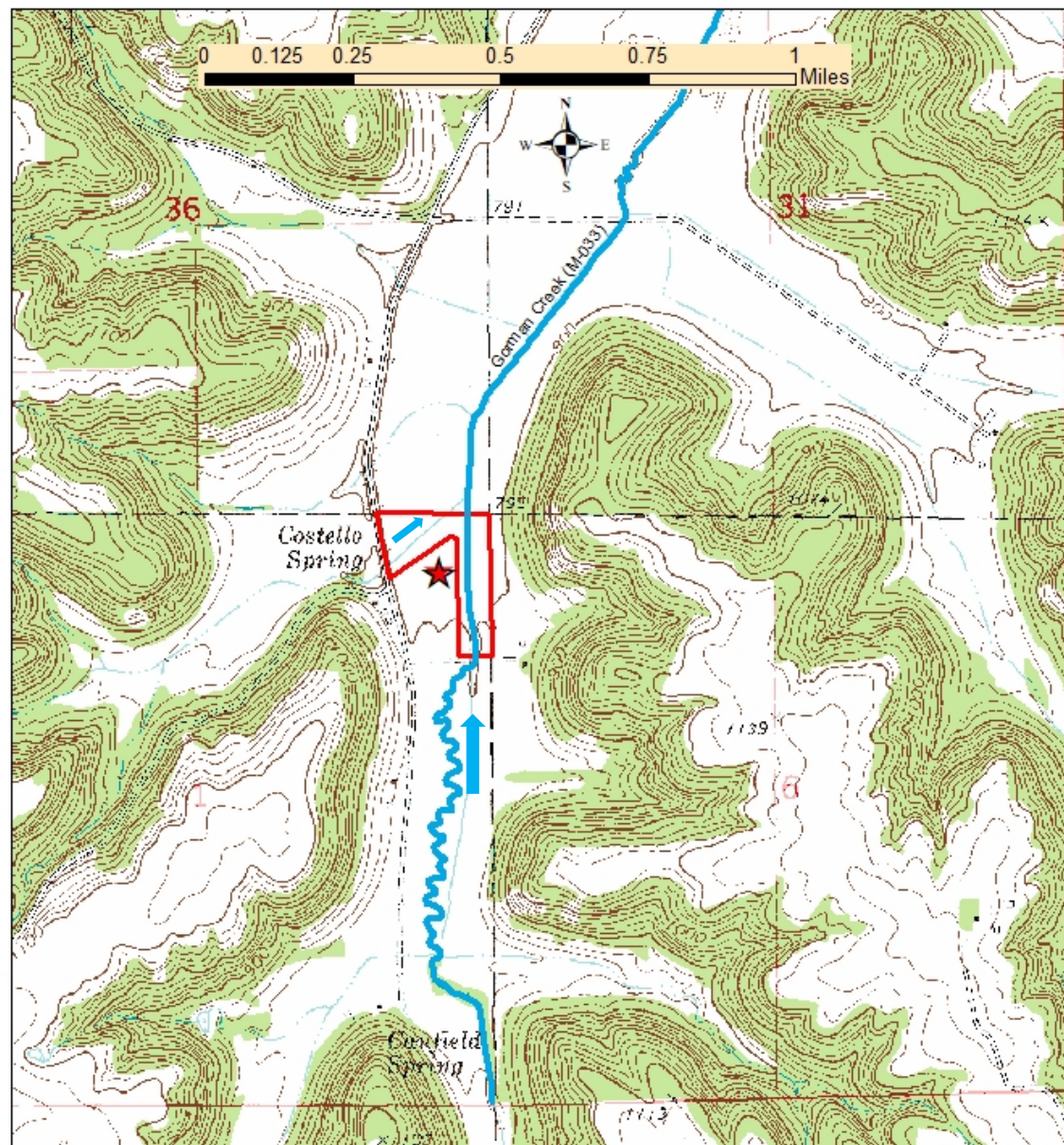


Figure 2. U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries.

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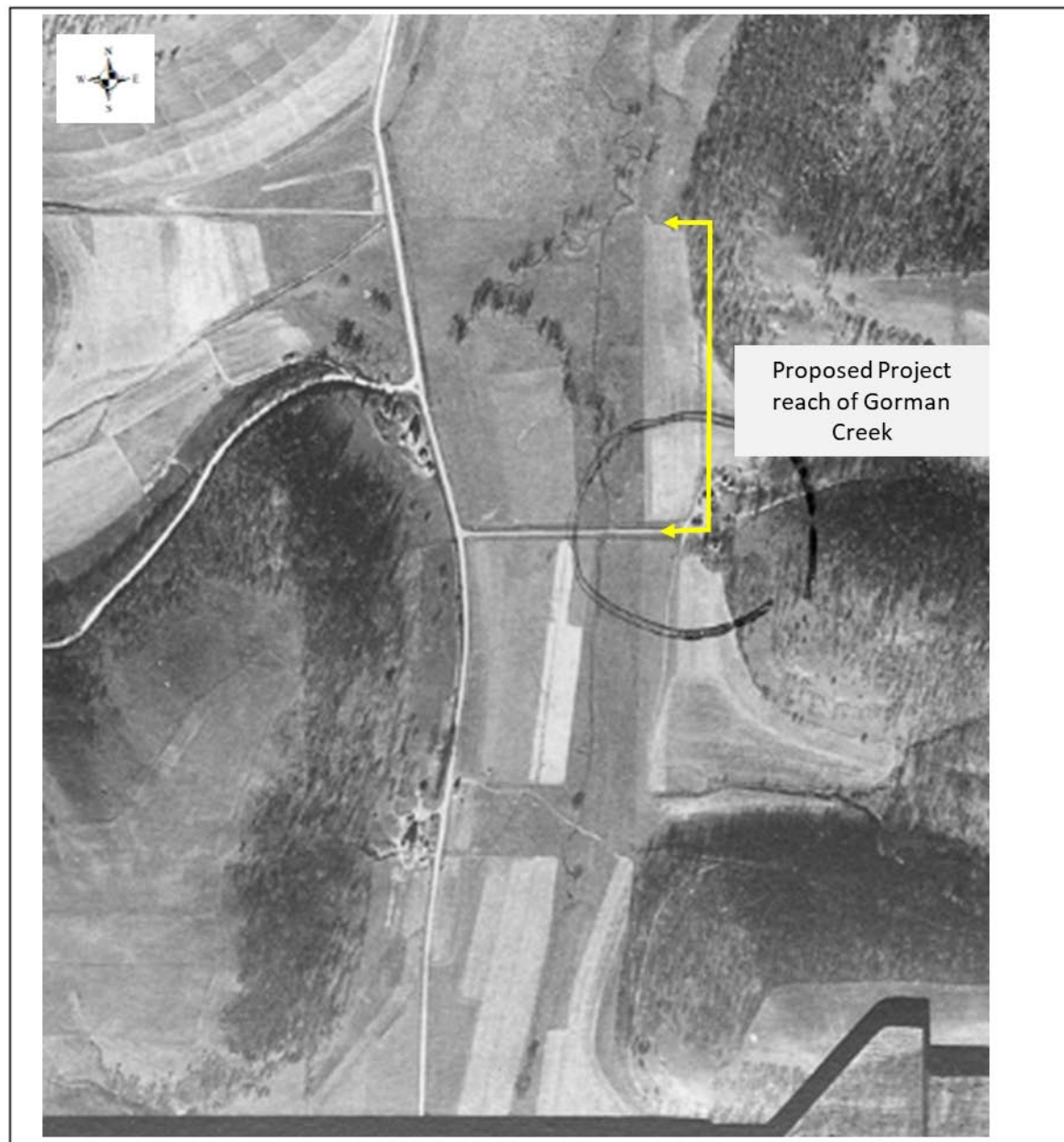


Figure 3. Aerial photograph of the Gorman Creek project area from October 1949.



Figure 4. Time series of aerial photographs showing stream channel pattern of Gorman Creek prior to restoration (1991) and post restoration (2011 and 2019). Restoration work was completed in 2001.







Figure 5. Photos of existing conditions on the main stem of Gorman Creek (panels A and B), the spring tributary (panel C), and culvert with flow from Costello Spring (panel D).

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Legend

-  Costello Spring - existing
-  Costello Spring - proposed
-  Gorman Creek - existing
-  Gorman Creek - proposed

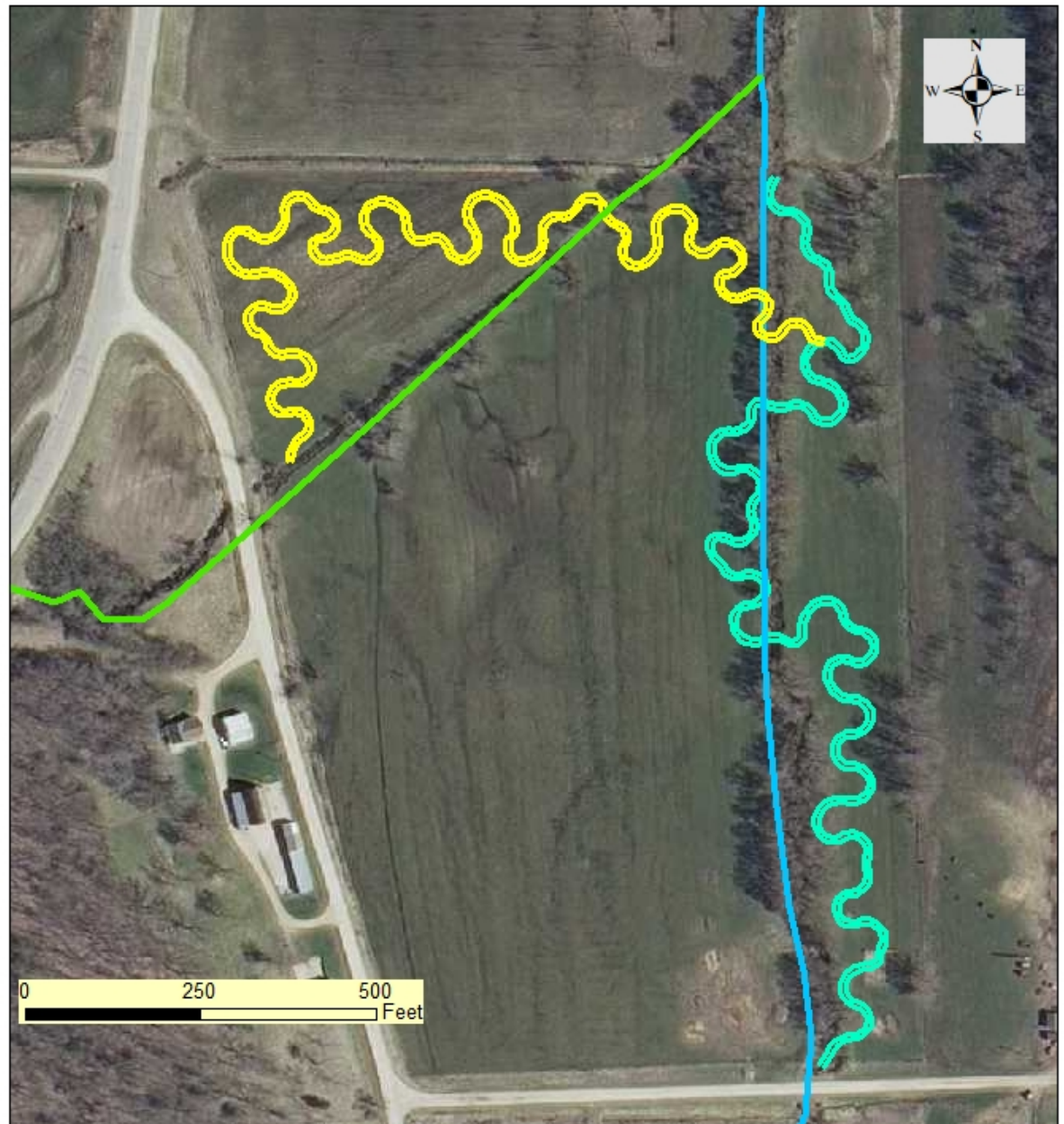


Figure 6. Overview of project area showing existing and proposed stream channel patterns for Gorman Creek and the spring tributary.

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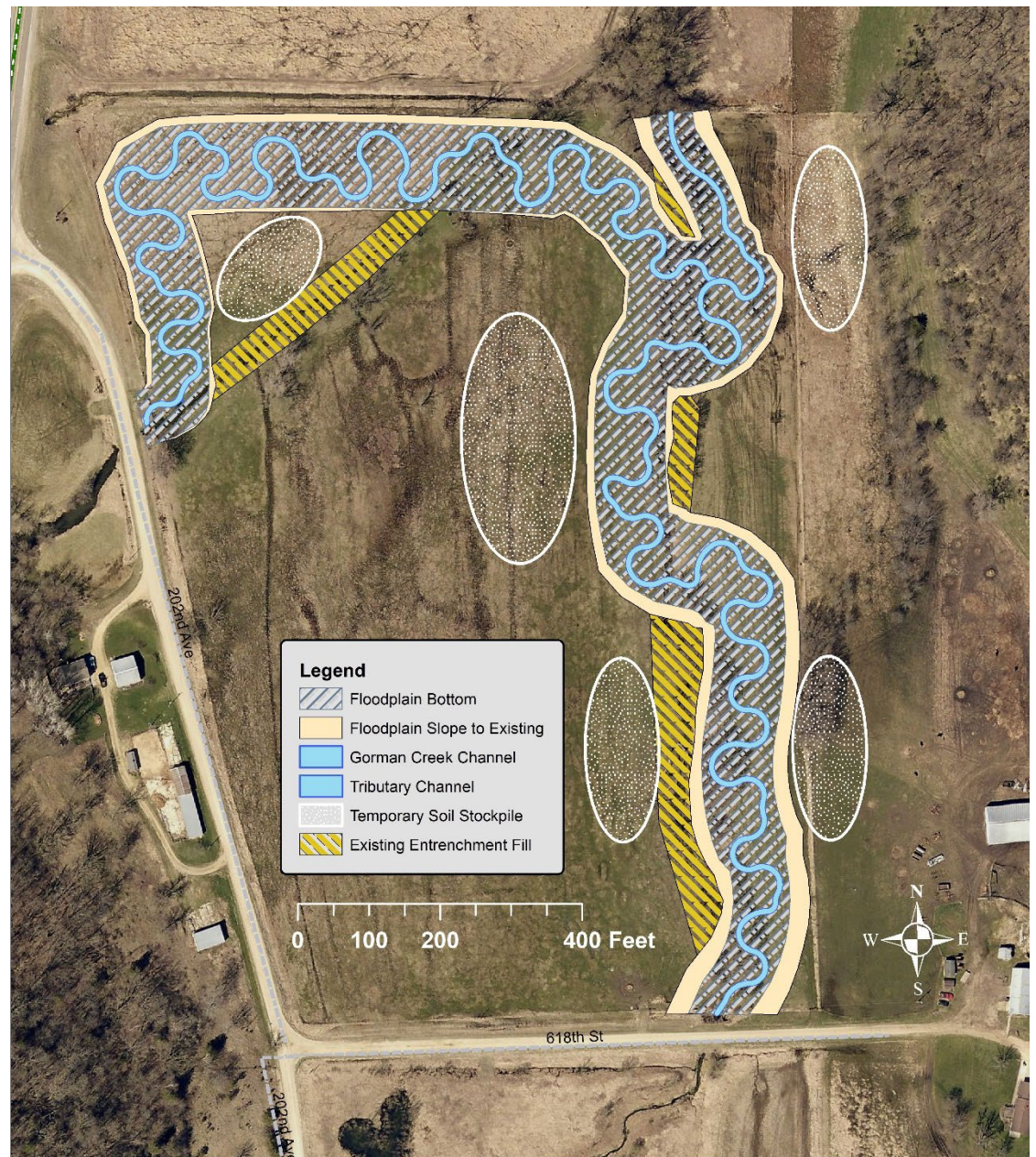


Figure 7. Project grading plan overview showing excavation areas, old channel fill areas, and temporary soil stockpile locations.



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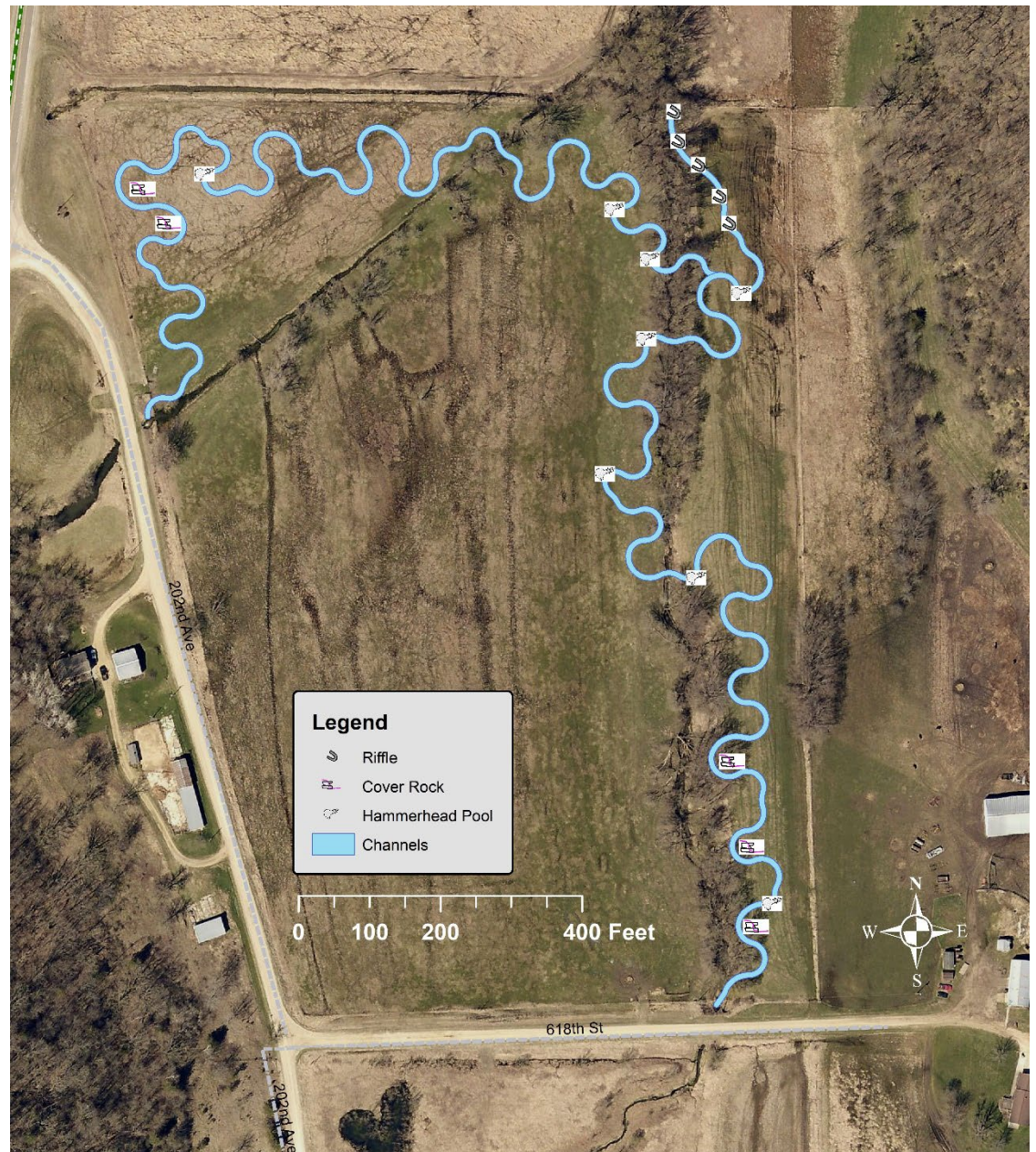


Figure 8. Overview of proposed stream habitat and stabilization features.



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Legend



Construction Access



Costello Spring - proposed



Gorman Creek - proposed



Equipment staging and maintenance

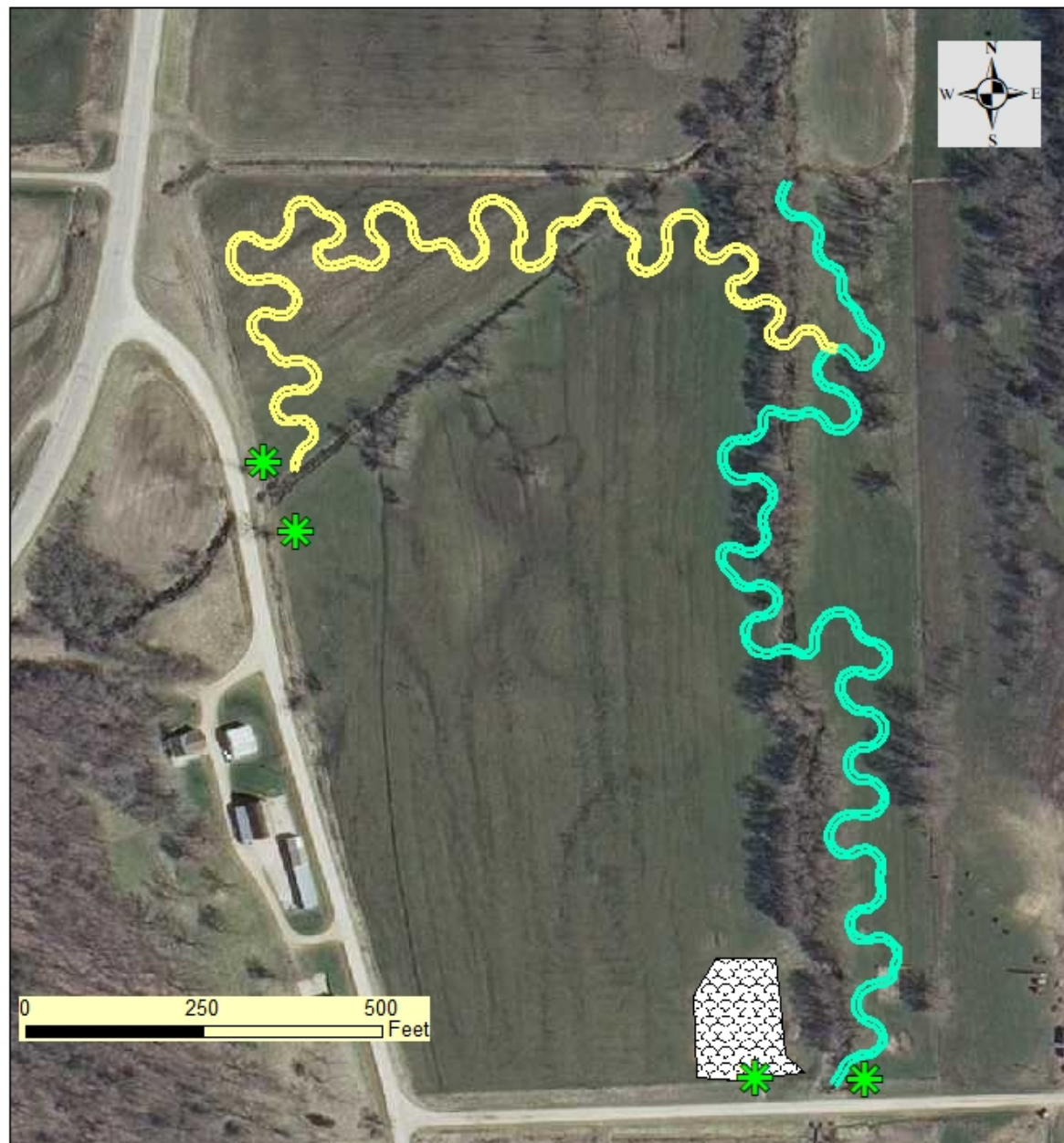


Figure 9. Proposed locations for construction access, equipment staging, and equipment maintenance.

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Legend

-  Costello Spring
-  Gorman Creek
-  Project Boundary
-  FEMA 100 Floodplain

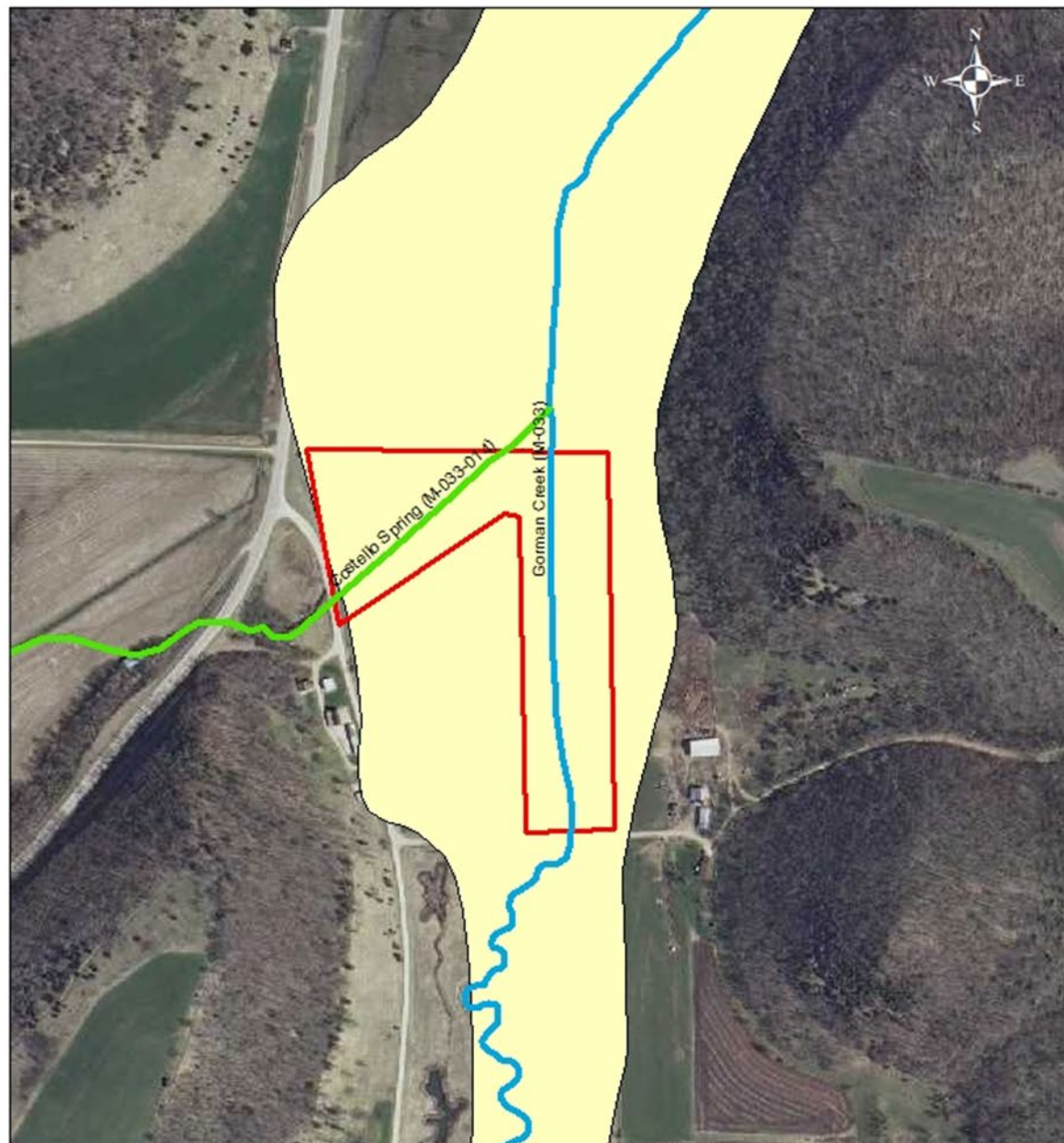





Figure 10. FEMA 100 floodzone for the project area.

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Legend

-  Two-mile radius
-  Project Location
-  Sinkhole

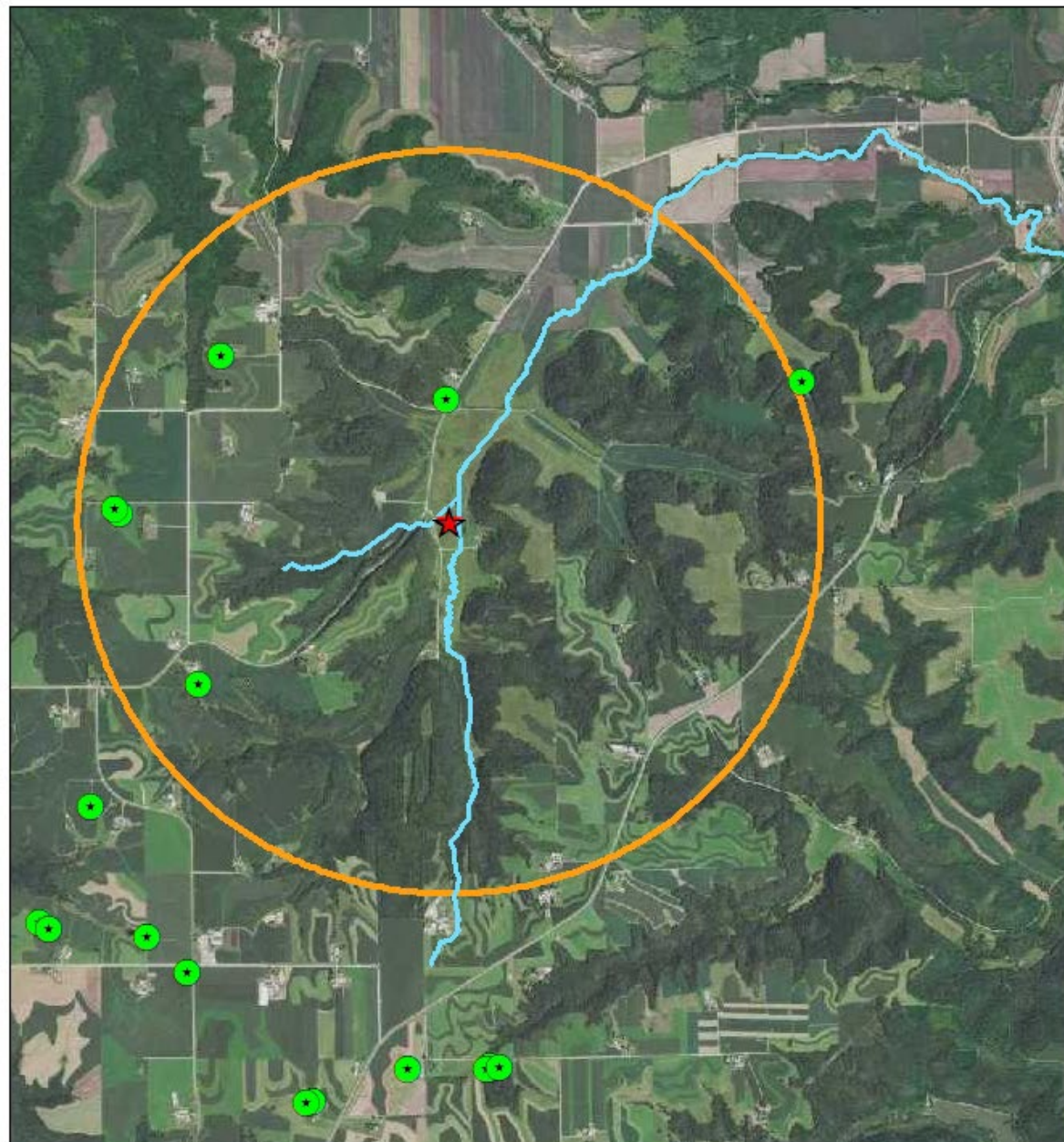




Figure 11. Karst features in the project vicinity.

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Legend

-  Project Boundary
-  SSURGO Soils

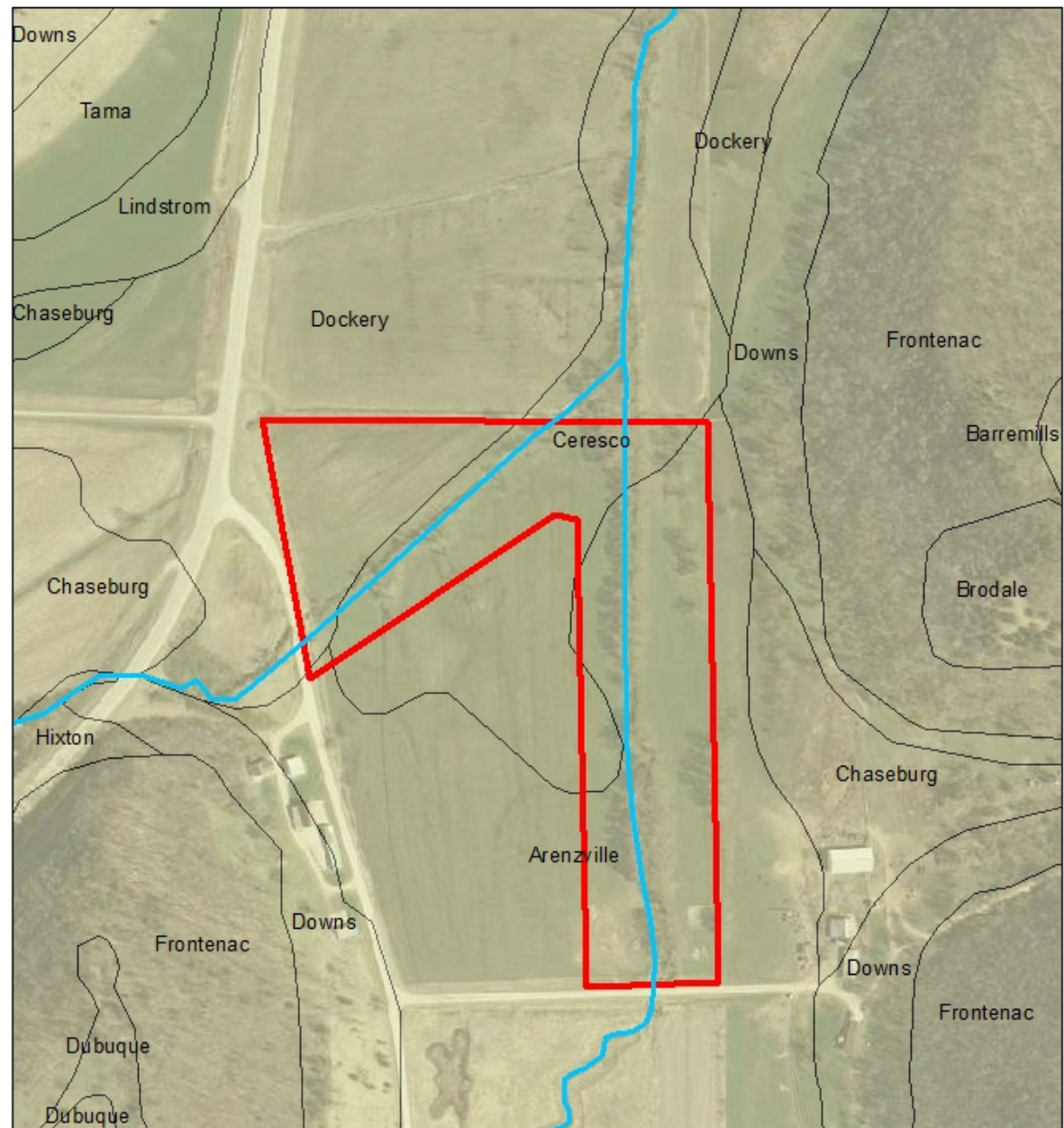







Figure 12. Soil unit map of the project area from the USDA Web Soil Survey.

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Legend

-  Project Boundary
-  1 - Seasonally Flooded Basin or Flat
-  2 - Wet Meadow
-  3 - Shallow Marsh
-  4 - Deep Marsh
-  5 - Shallow Open Water

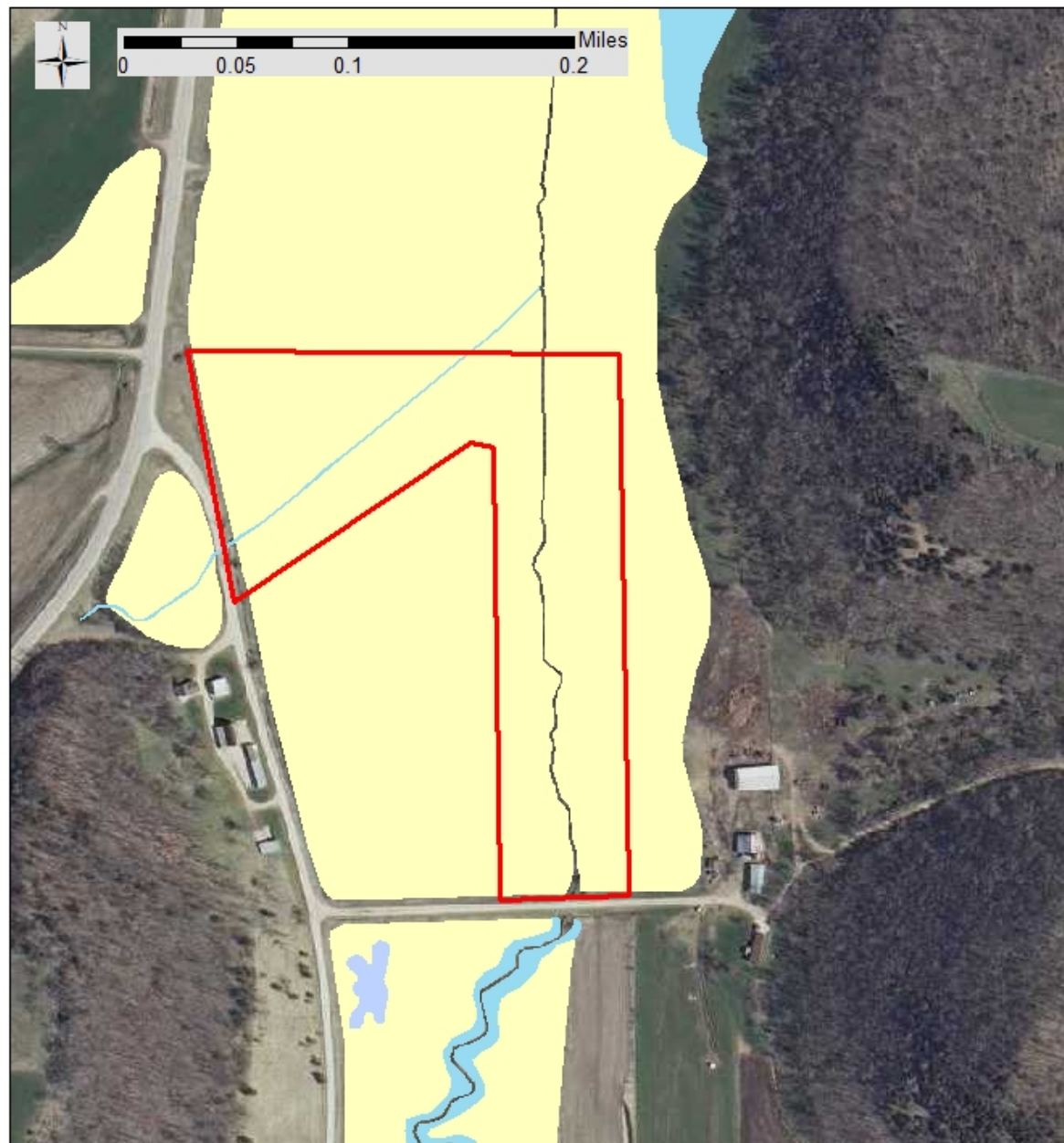


Figure 13. National Wetland Inventory Circular 39 map of project area.

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Legend



-  Spring
-  Project_Boundary






Figure 14. Spring locations near proposed project.

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Legend

-  County Well Index - Verified Locations
-  Project Boundary
-  One -mile radius

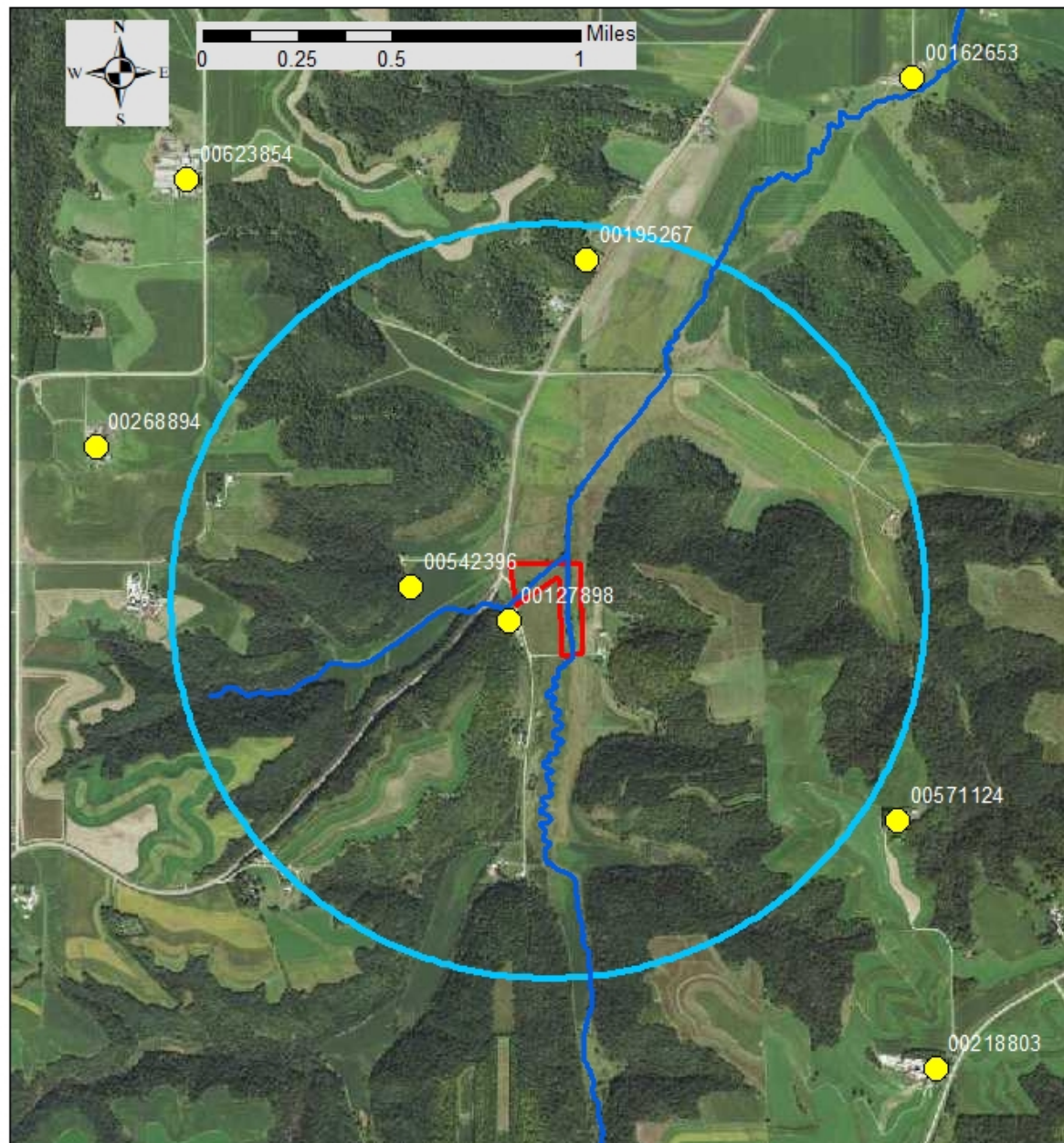







Figure 15. Minnesota Department of Health – County well index for the project area.

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Legend

-  Project Boundary
-  Outstanding
-  High
-  Moderate
-  Below

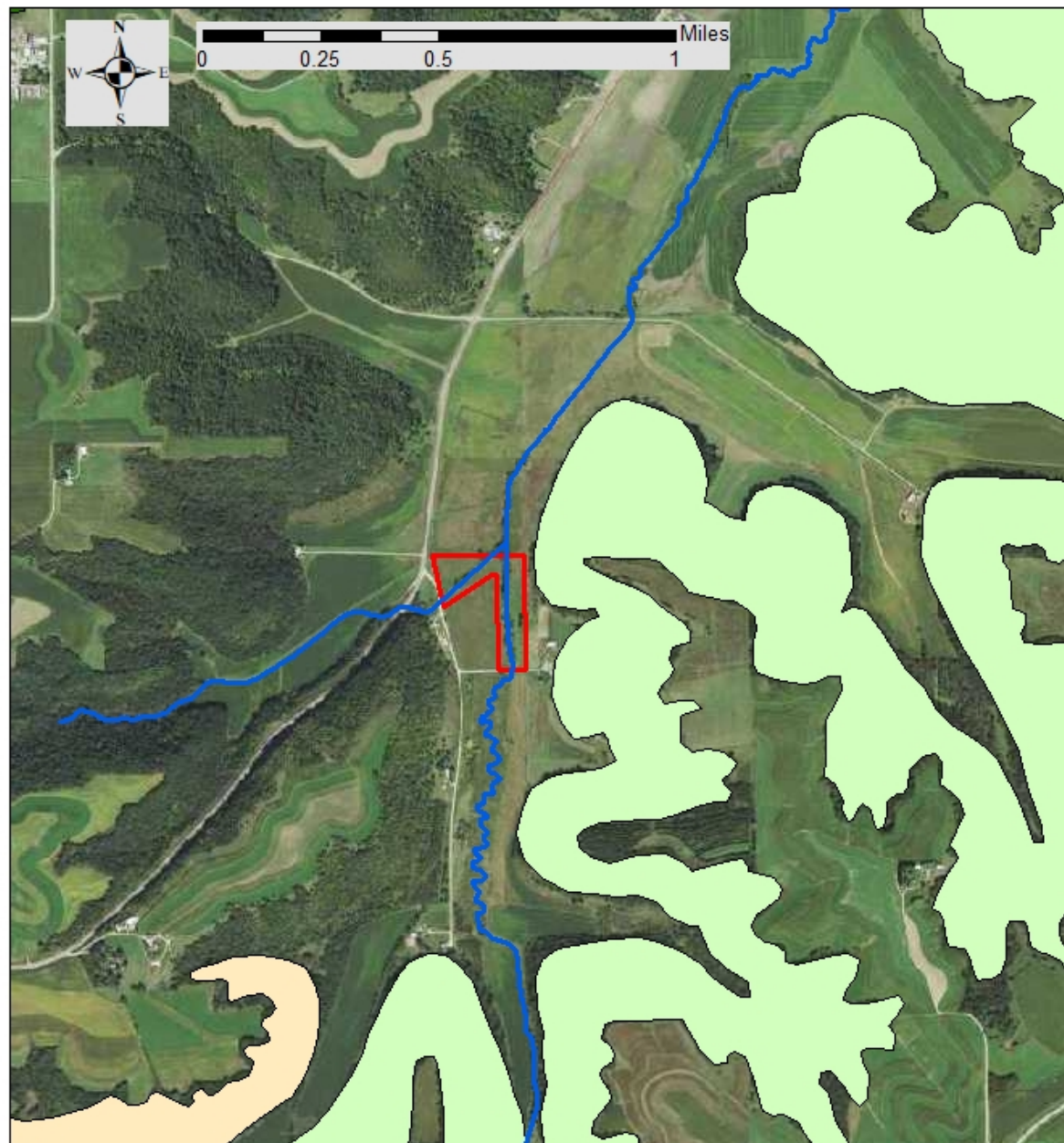


Figure 16. Minnesota Biological Survey sites of biodiversity.

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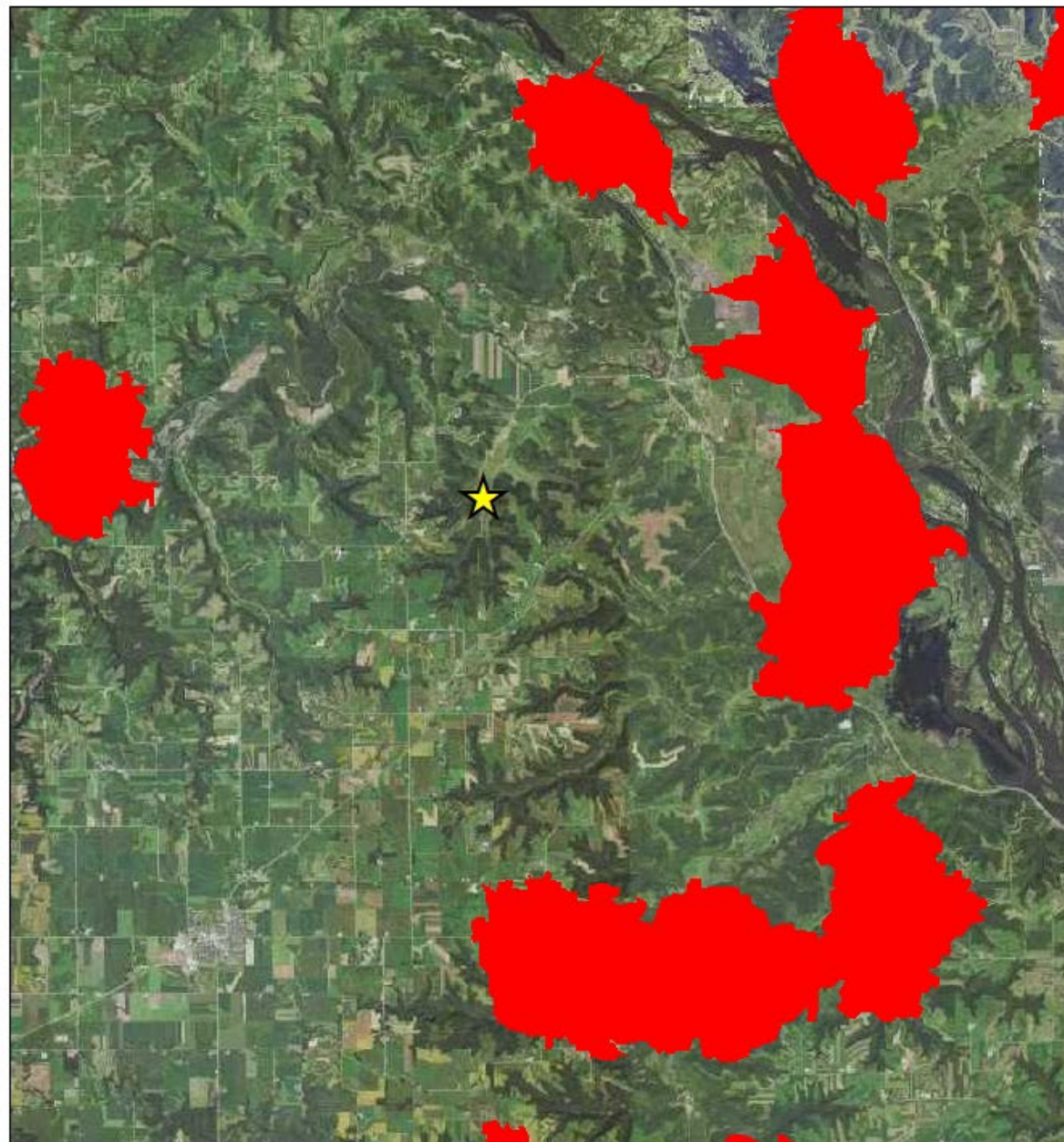
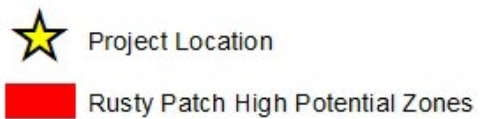


Figure 17. Map of Rusty Patch Bumble Bee (*Bombus affinis*) High Potential Zones near Gorman Creek project