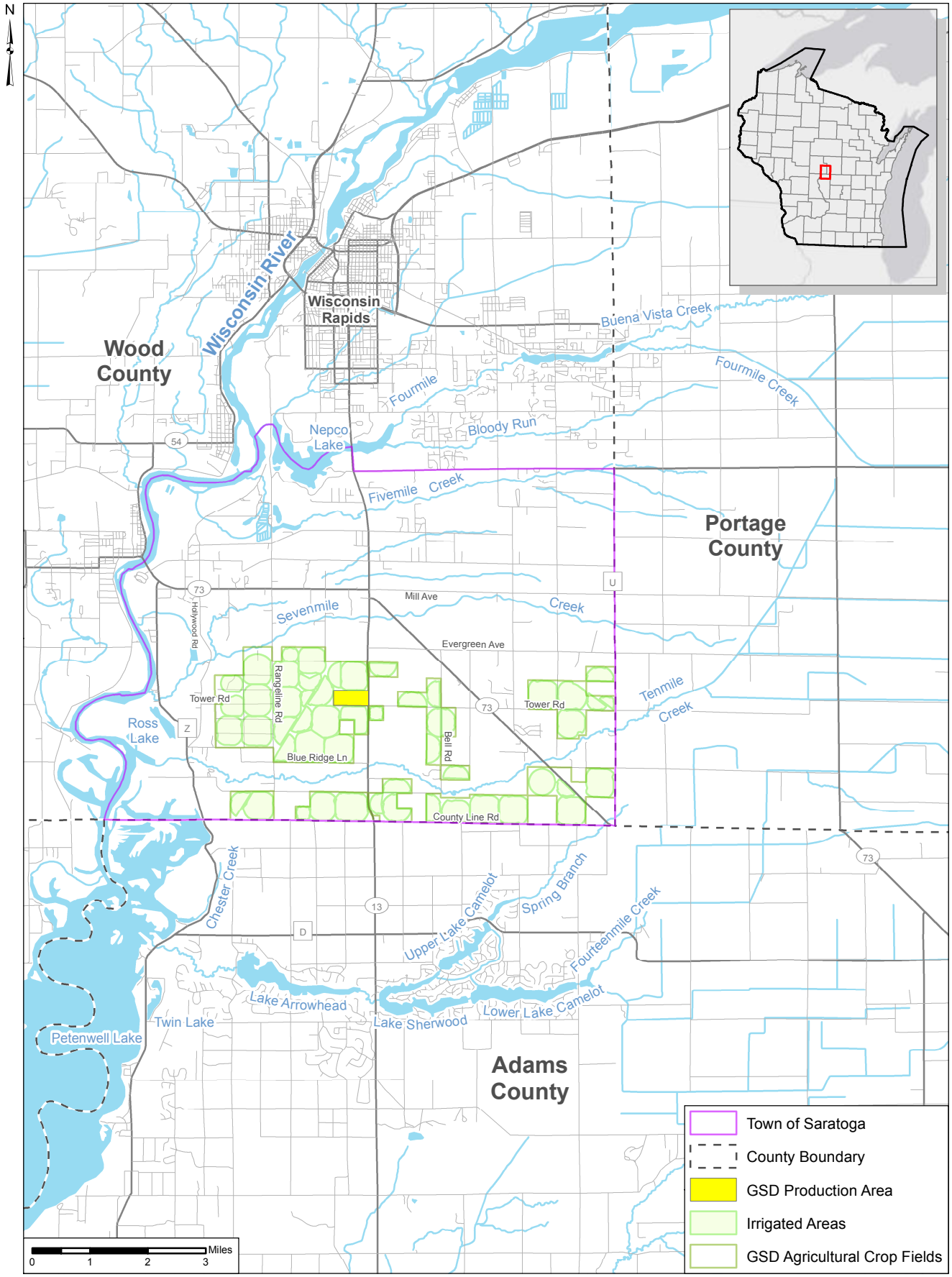
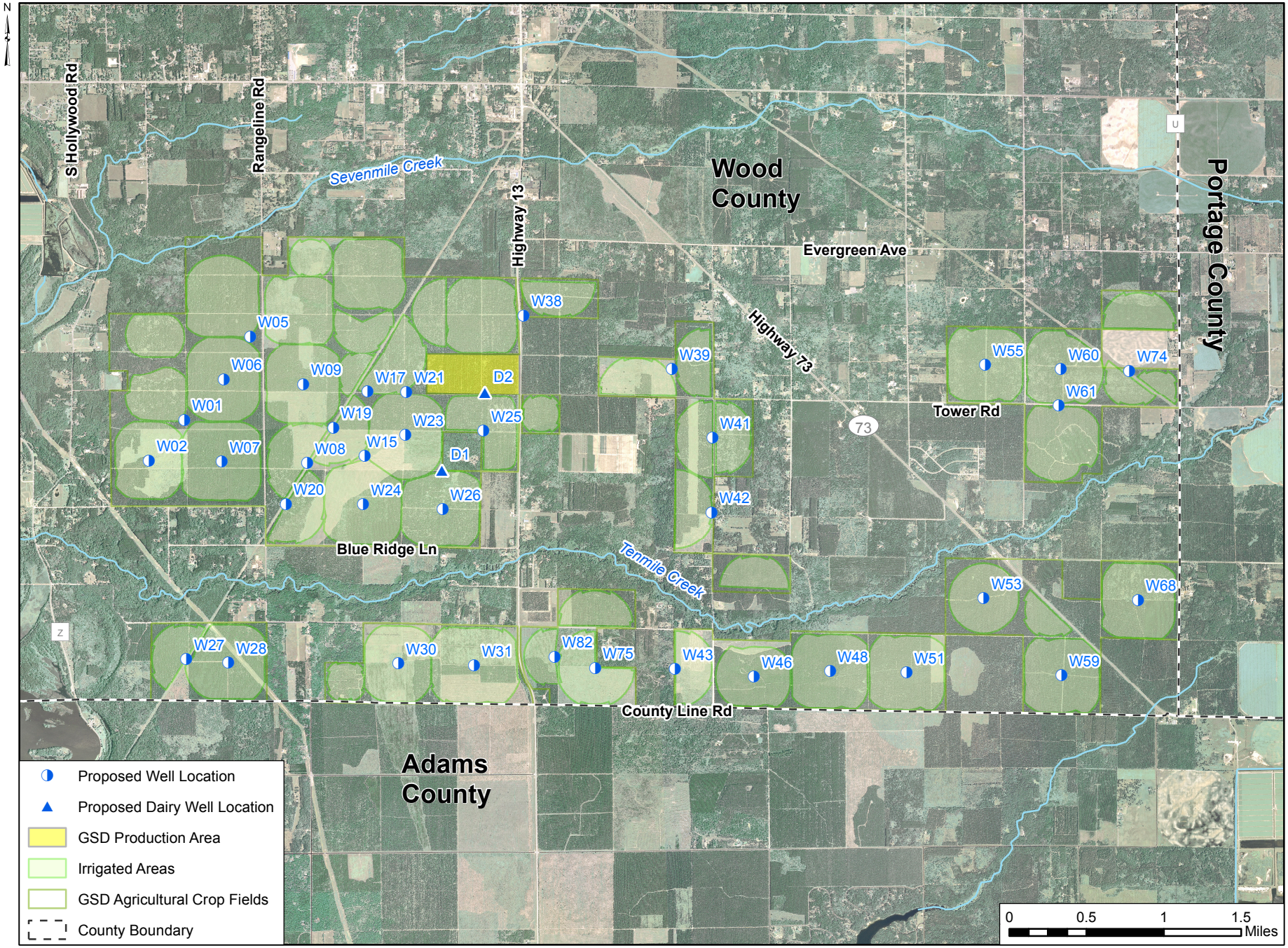
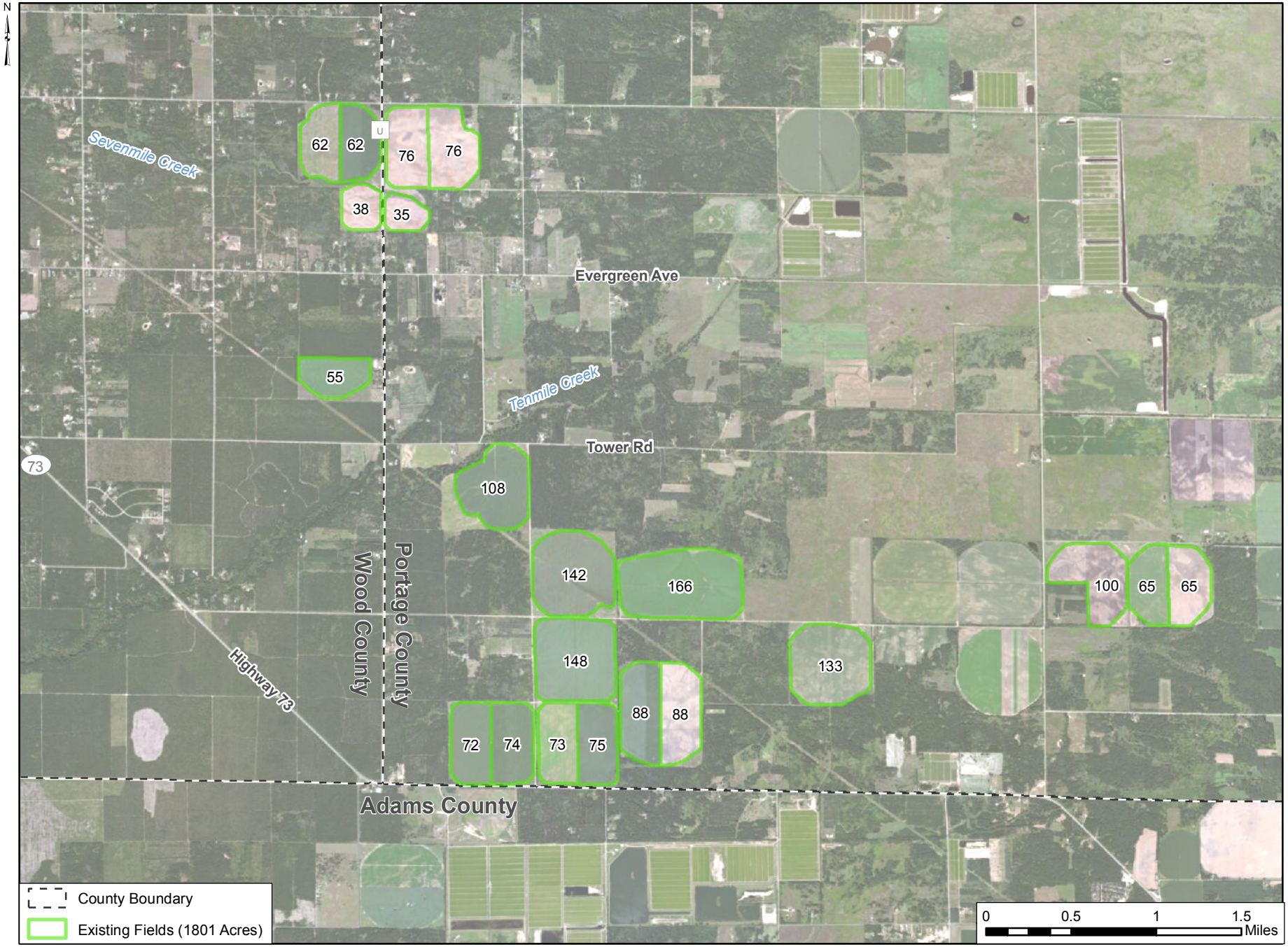


Figure 1-1 Regional Location Map for Golden Sands Dairy



Note: Delineation of the Irrigated Areas are approximate

Figure 1-2 Aerial Photograph of Project Area and Location of Proposed High Capacity Wells



Note: Delineations approximate

Figure 1-2a Aerial Photograph with Existing Fields

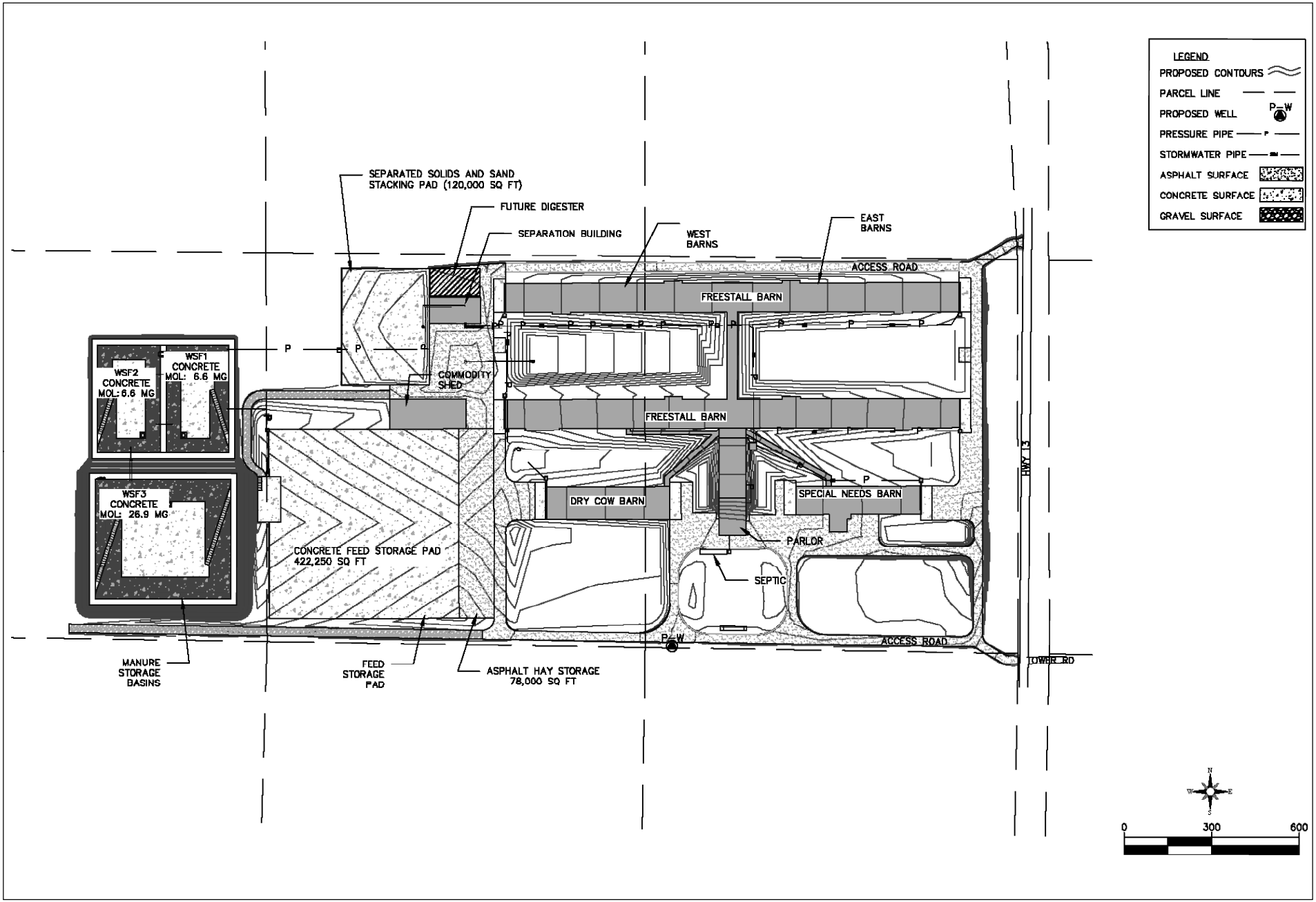
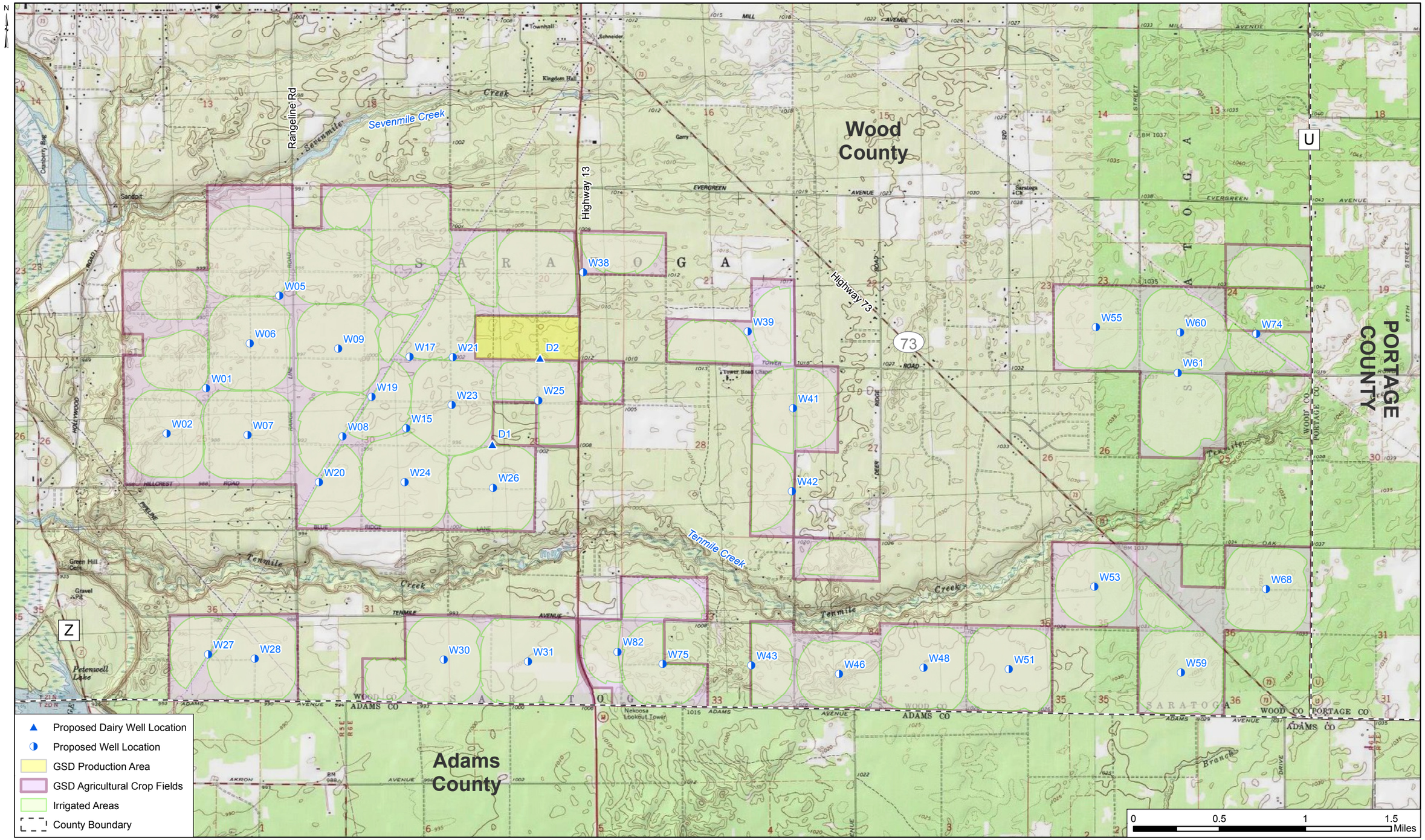
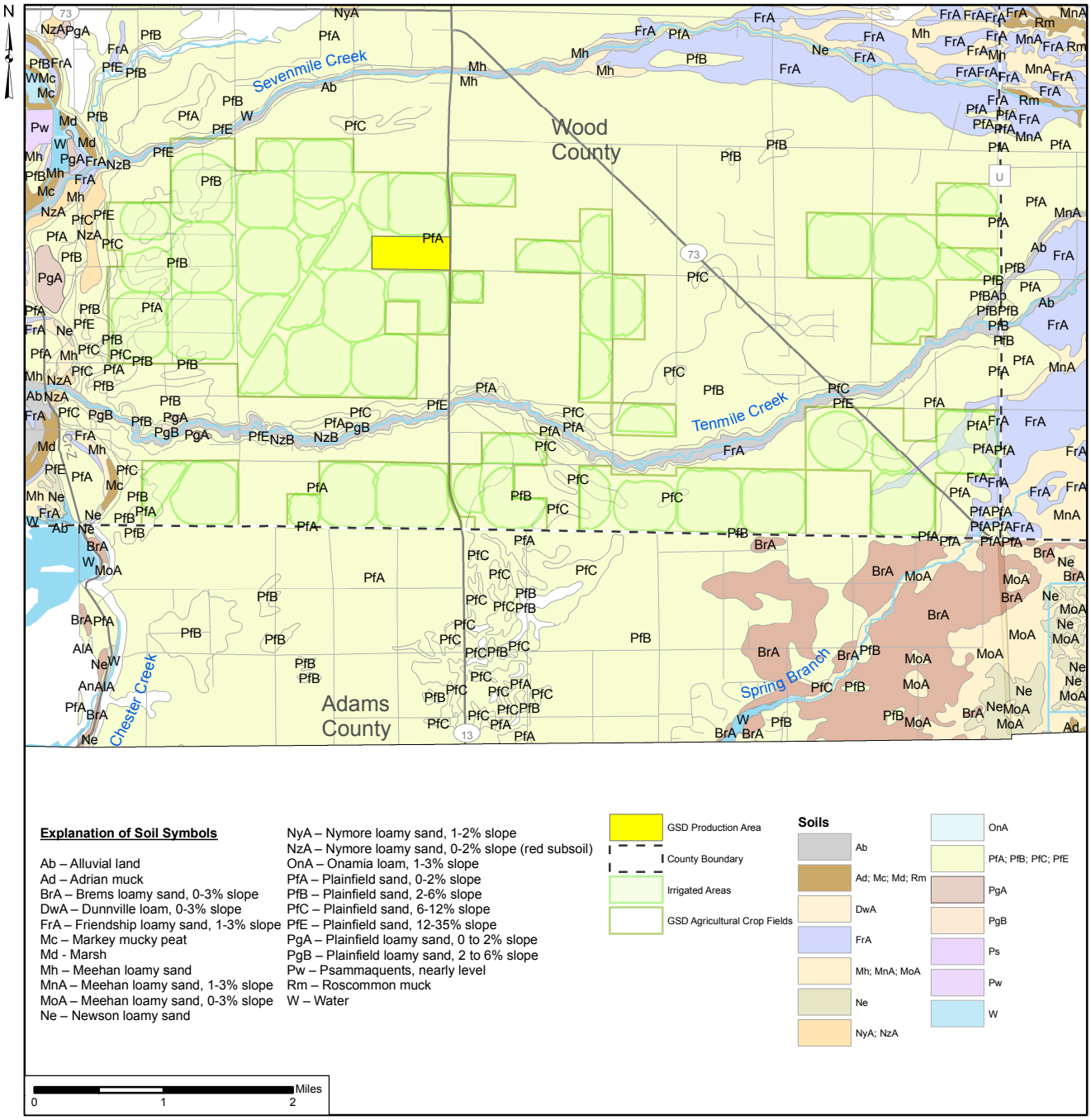


Figure 1-3 Map of GSD Production Area Reviewable Facillities



Note: Delineation of the Irrigated Areas are approximate

Figure 1-4 Topographic Map of Project Area



Data Source for soil: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Figure 1-5 Soil Types in Project Area

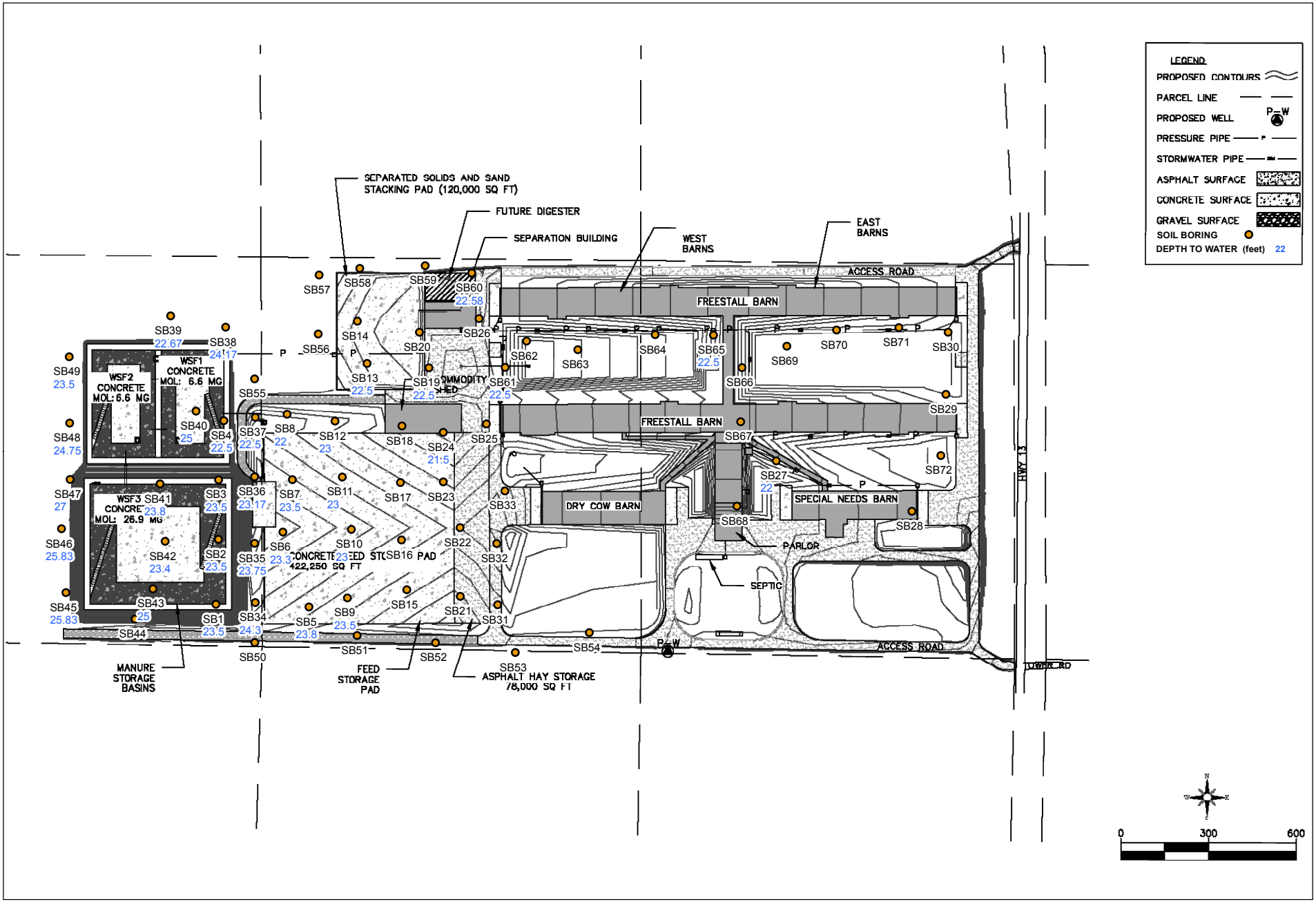
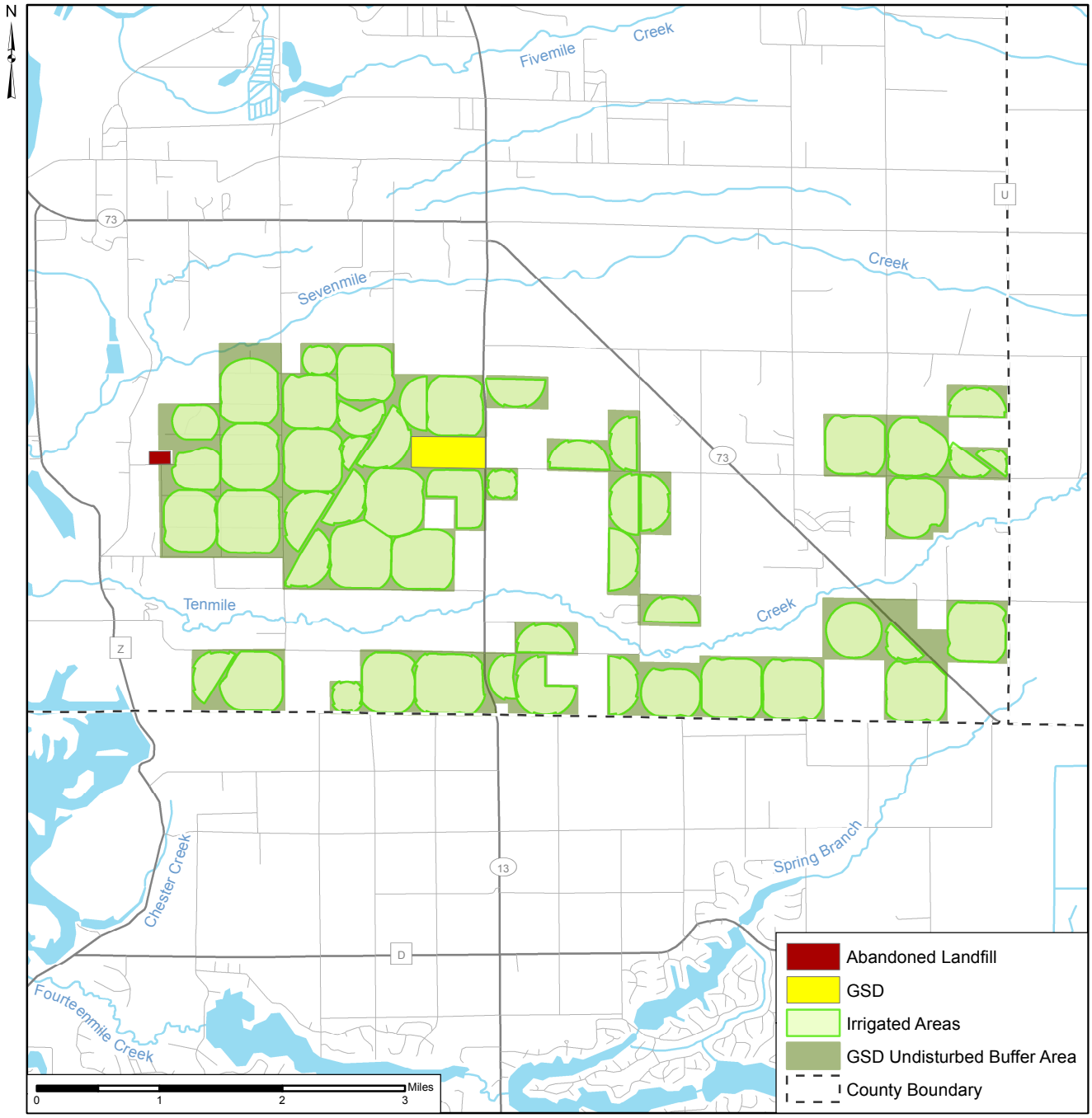
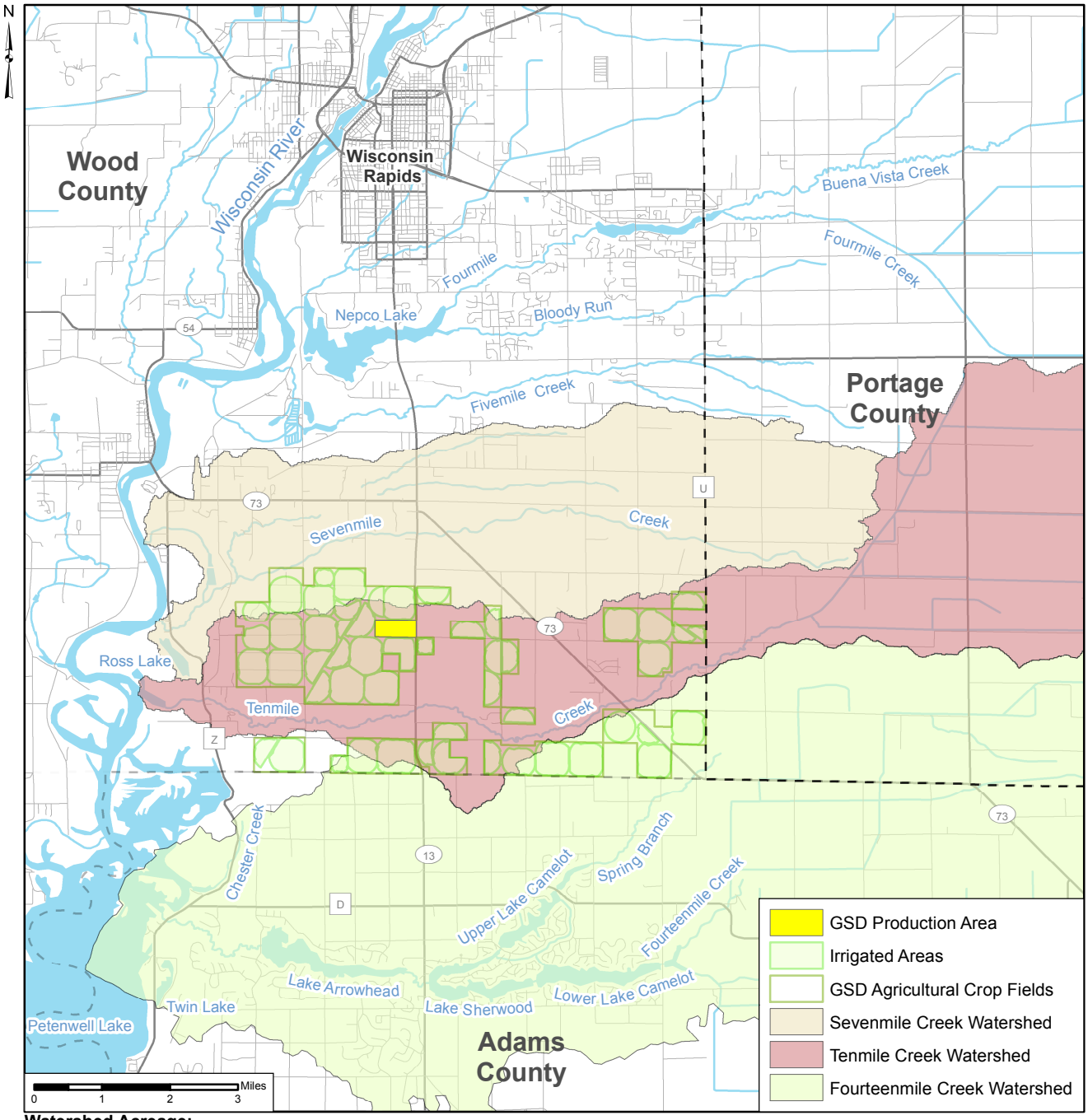


Figure 1-6 Soil Borings at GSD Production Area and Depth to Water



Note: Delineation of the Irrigated Areas are approximate. Undisturbed Buffer Area: 1280 Acres.

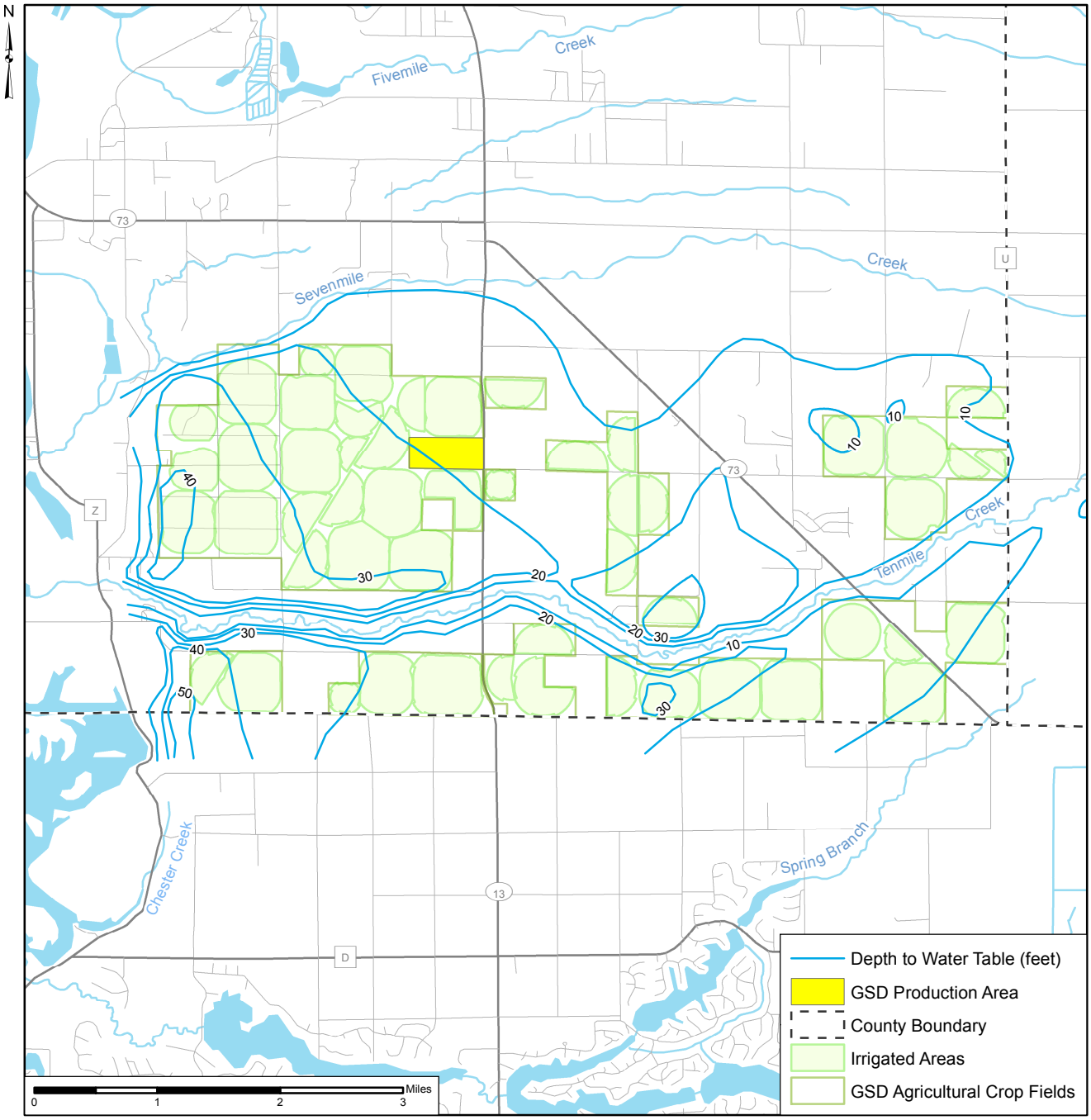
Figure 1-7 Proposed Undisturbed Buffer Areas



Watershed Acreage:
Sevenmile Creek - 15950.9
Tenmile Creek - 43834.5
Fourteenmile Creek - 55354.1

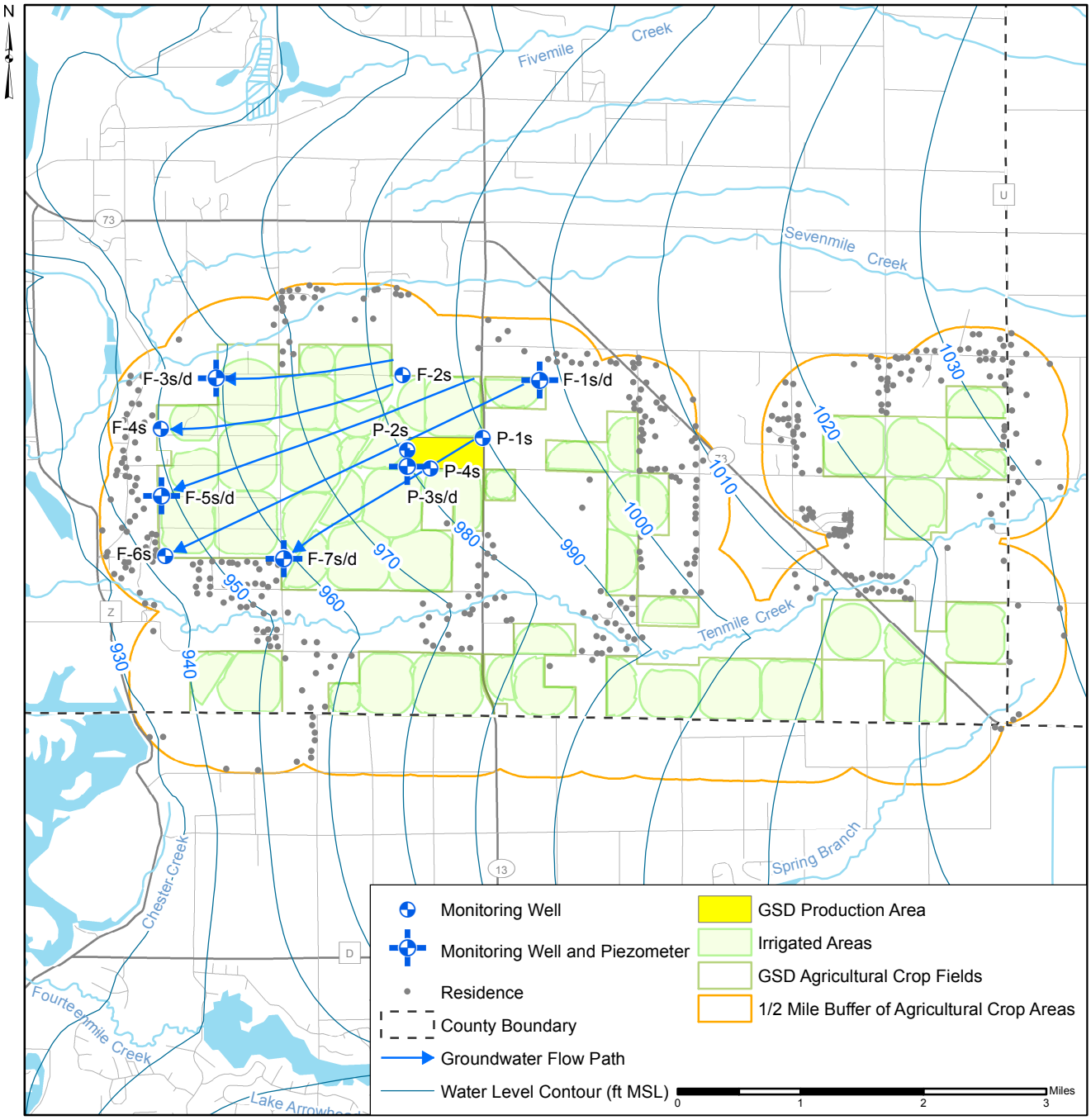
Data Source for Watersheds: http://www.horizon-systems.com/NHDPlus/NHDPlusV2_07.php
http://www.horizon-systems.com/NHDPlus/NHDPlusV2_data.php

Figure 1-8 Watersheds and Surface Water Features Near the Project Area



Note: Calculated as model top elevation less the calculated water table elevation in the month of August for a normal year.

Figure 1-9 Depth to Groundwater in Project Area



Note: Delineation of the Irrigated Areas are Approximate

Figure 1-10 Groundwater Monitoring Plan

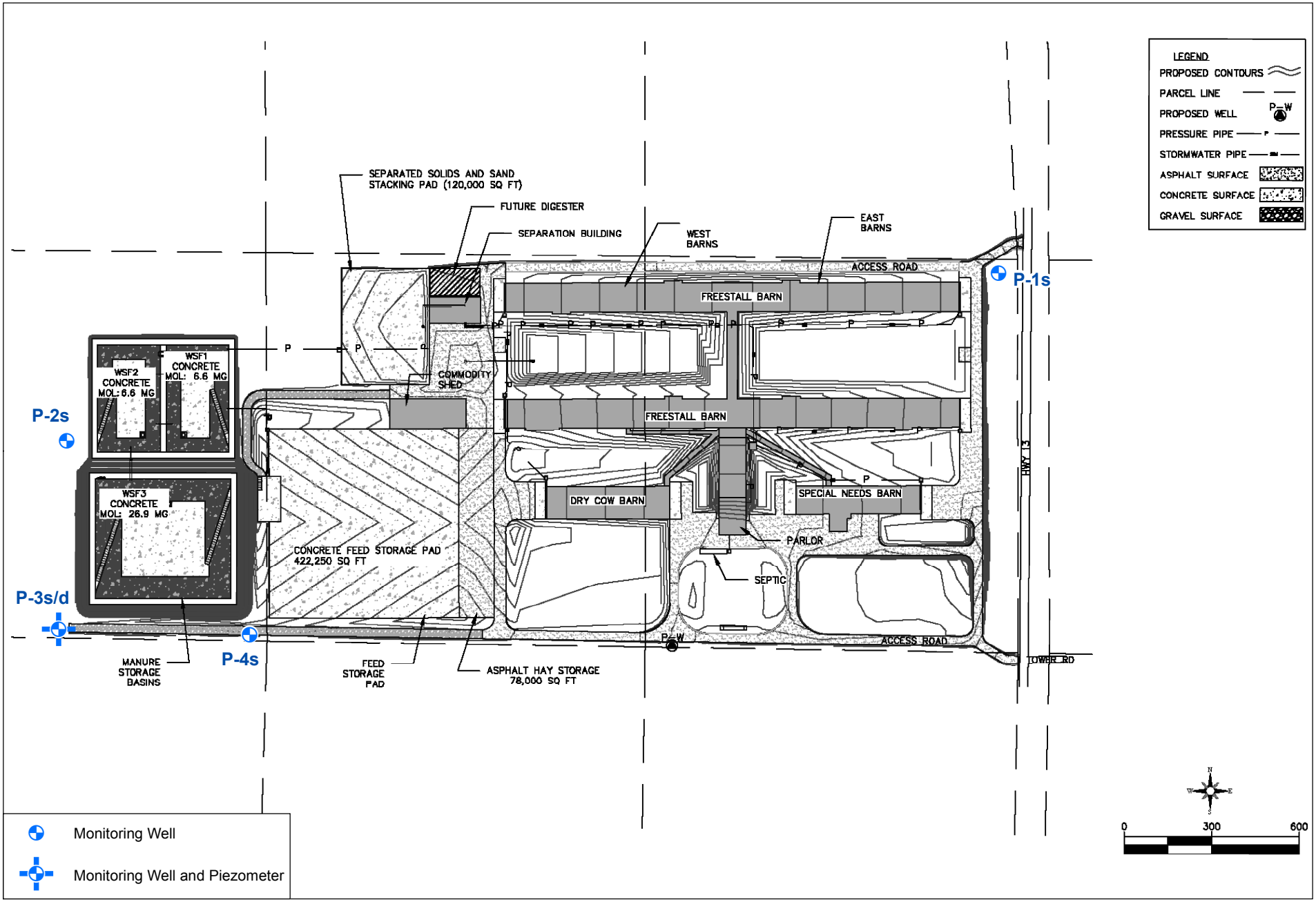
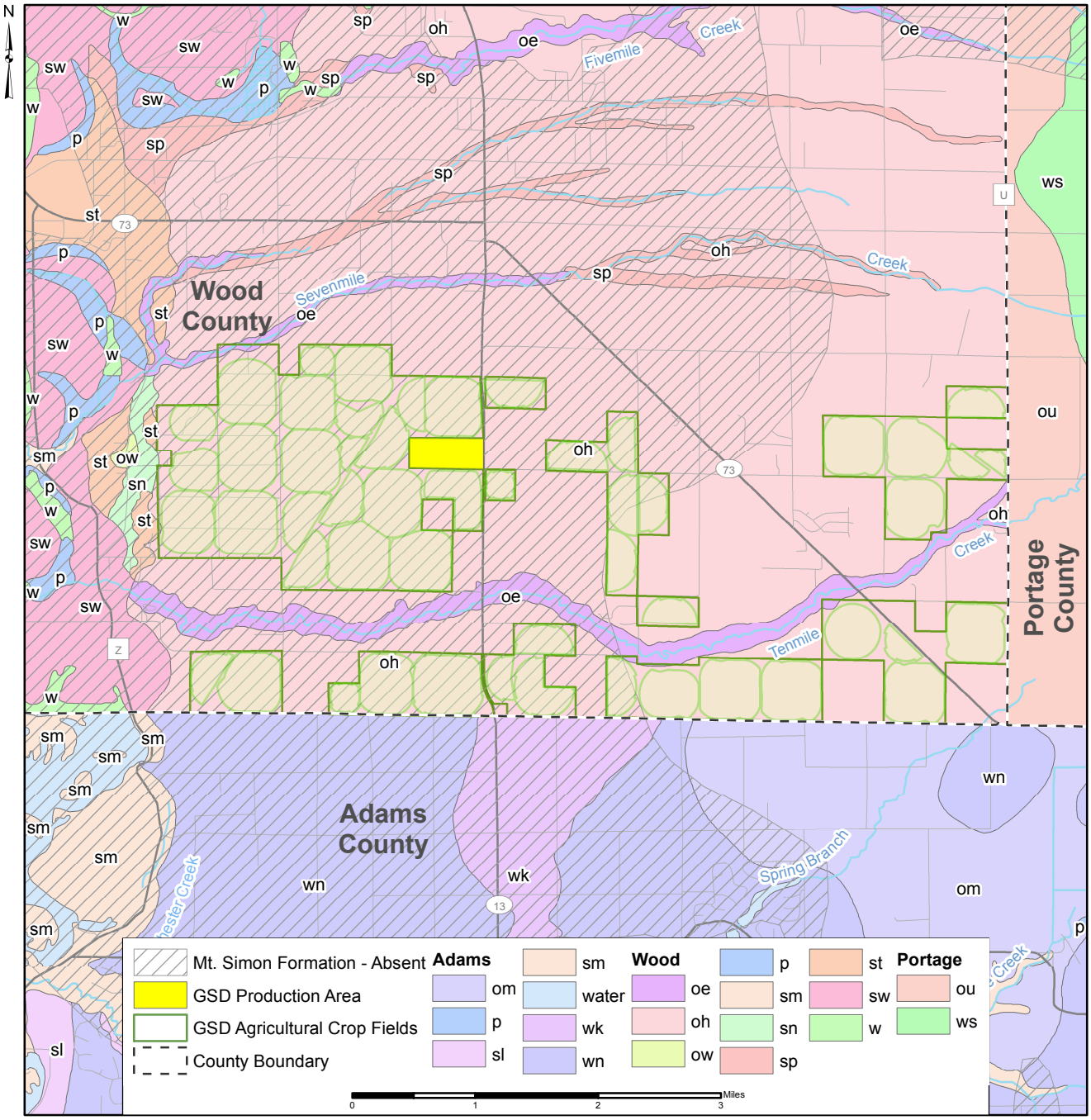


Figure 1-11 Groundwater Monitoring Plan - GSD Production Area



Geologic Data Source: http://wisconsingeologicalsurvey.org/gis.htmText

Explanation of Symbols:

Adams County
om - offshore sand Pleistocene
wk & wn - windblown sand
sm - modern stream sediment
sl - Love terrace sand
p - peat

Wood County
sn, sp, & sw – premodern nonglacial stream sediment
st – stream sediment of Love terraces (Pleistocene)
Oe, oh, & ow – offshore sediment – sand deposited in glacial Lake Wisconsin (Pleistocene)
sm – modern stream sediment
p - peat

Portage County
ou – offshore sediment (Pleistocene)
ws – windblown sand

Figure 2-1 Geologic Map of Project Area

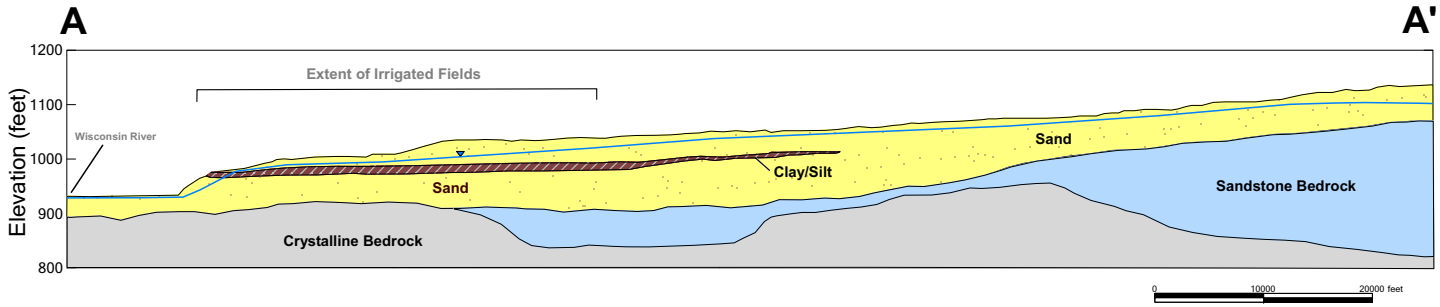


Figure 2-2 Schematic Geologic Cross Section

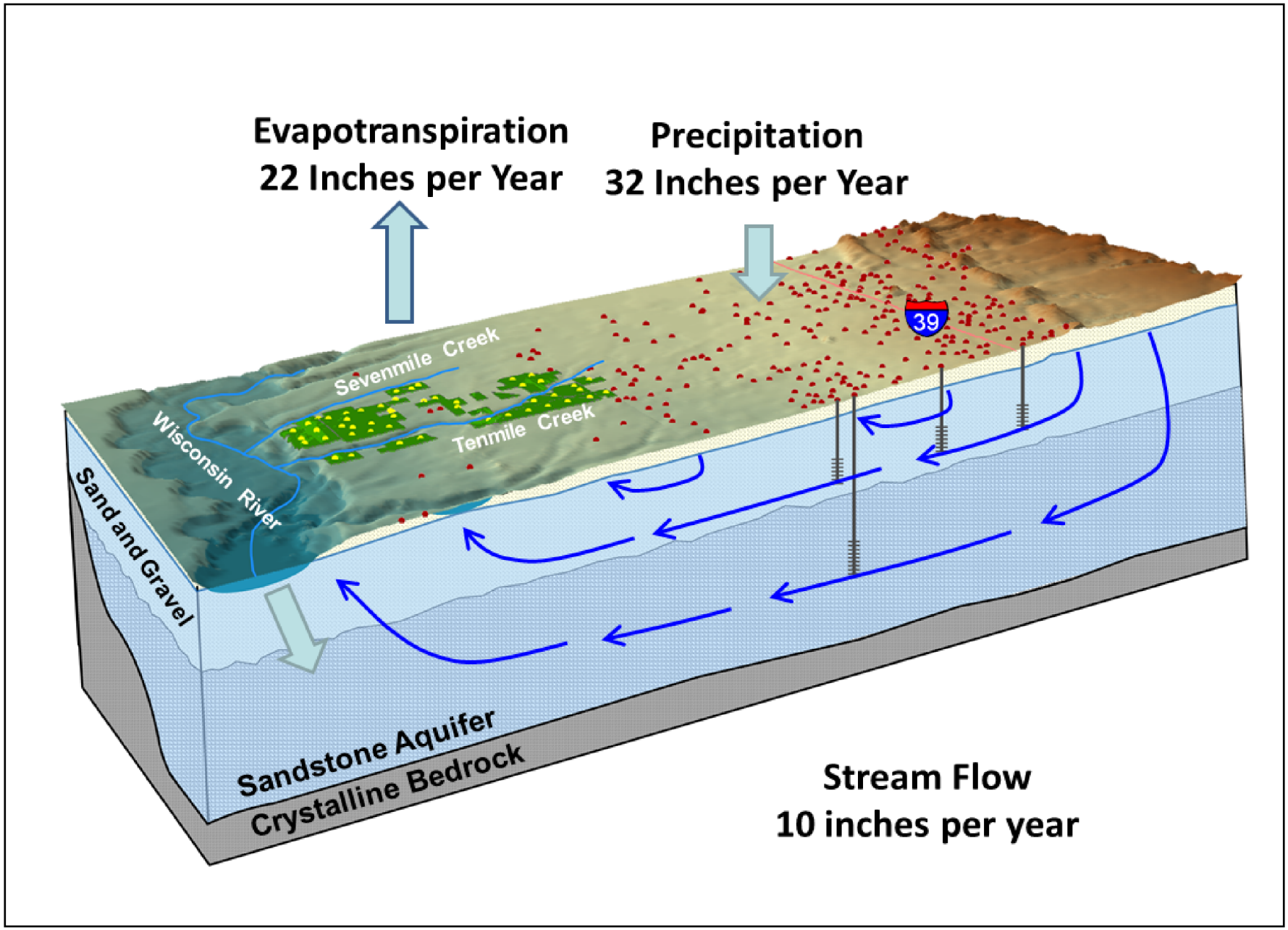
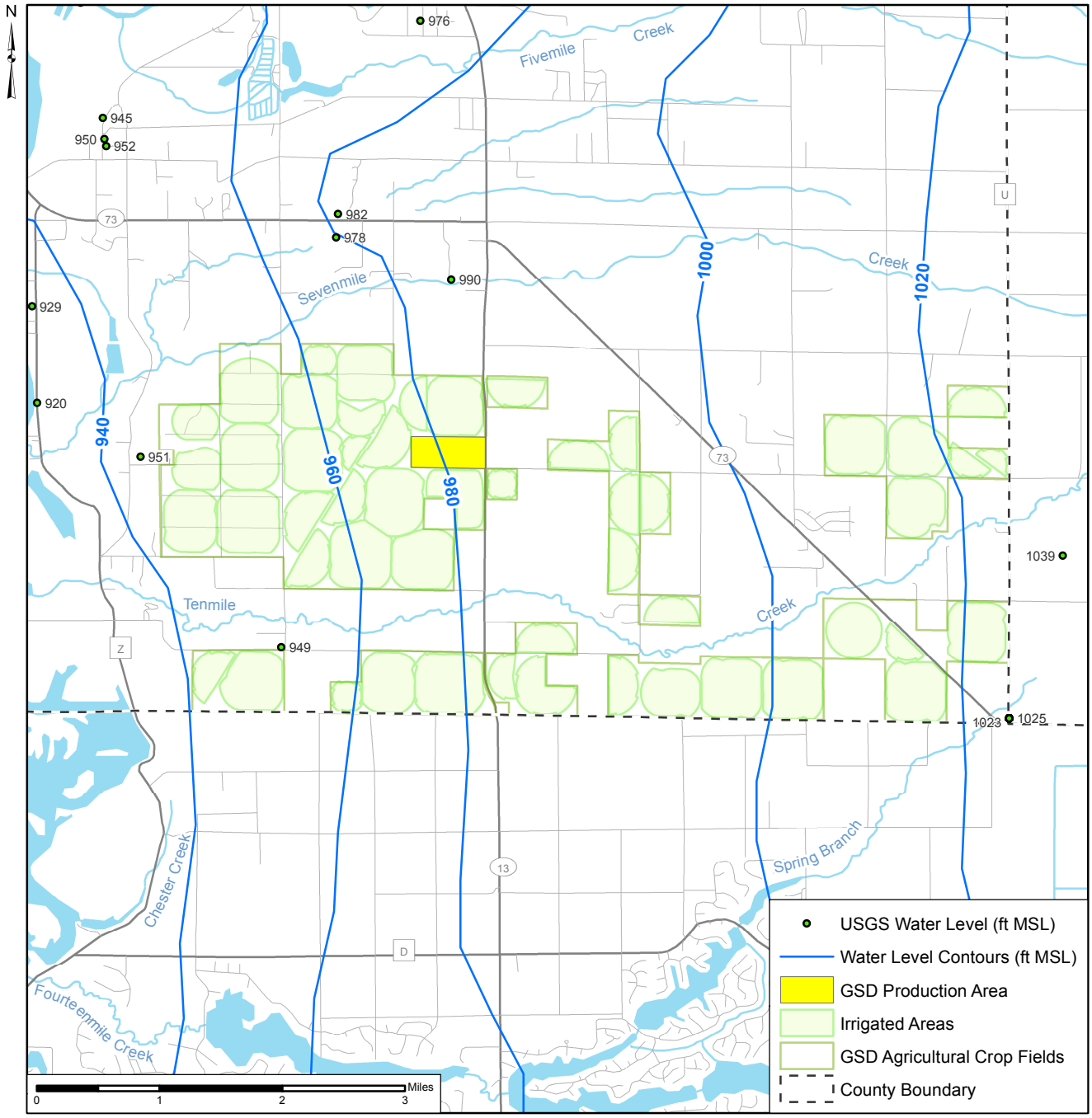
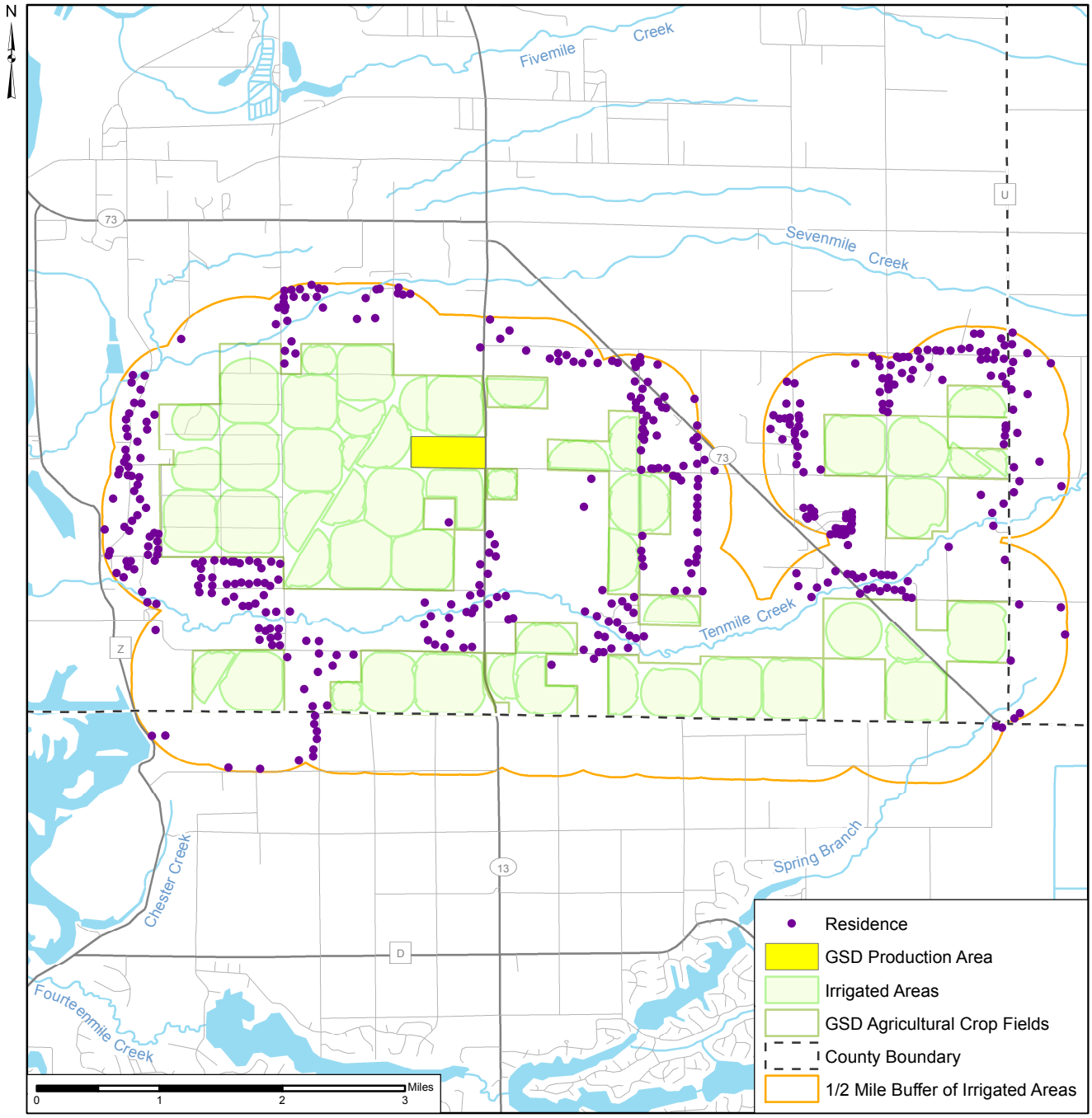


Figure 2-3 Schematic Block Diagram of Water Budget in Project Area



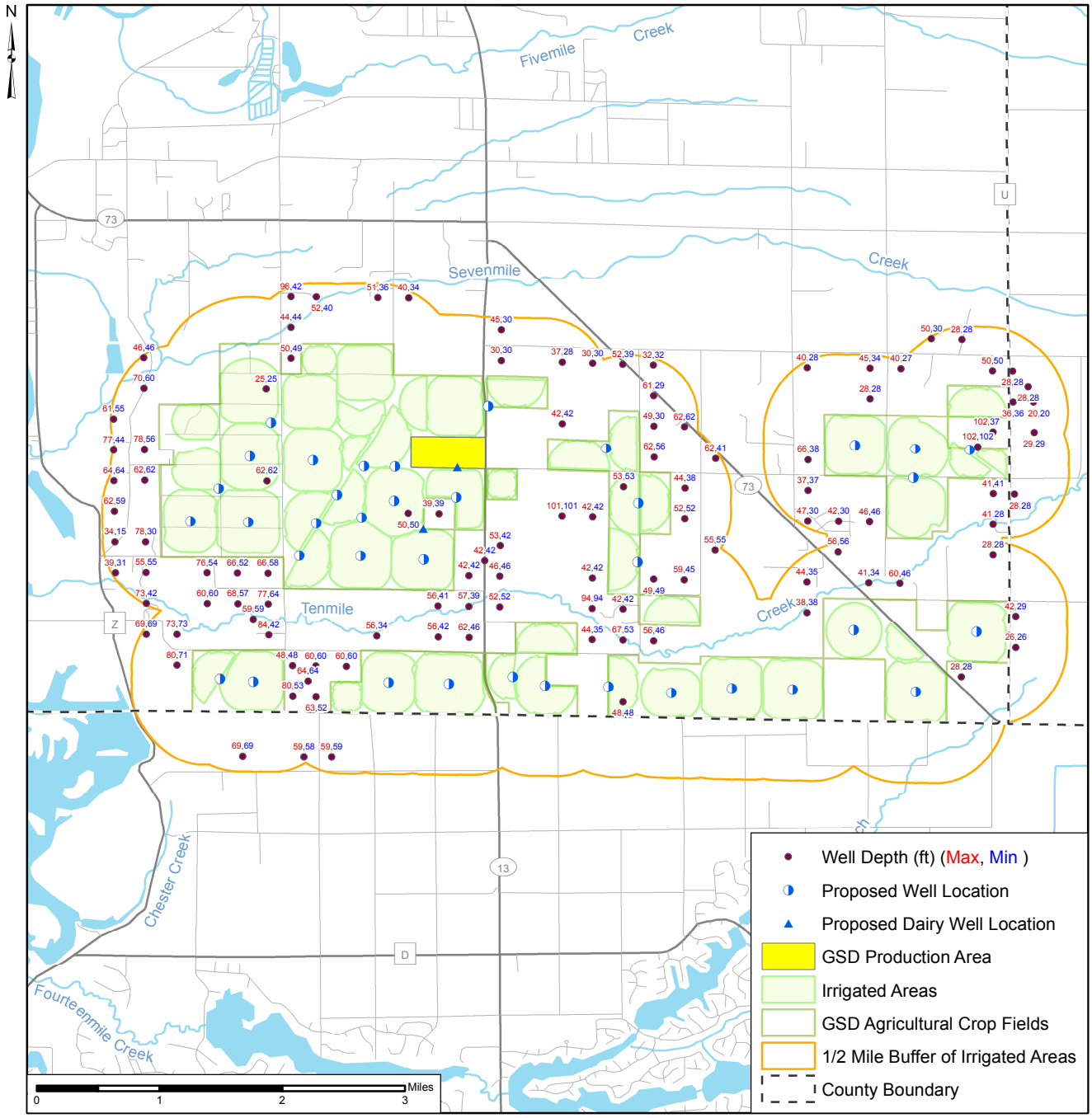
Note: Delineation of the Irrigated Areas are approximate

Figure 2-4 Groundwater Levels in the Sand and Gravel Aquifer (1970-1979)



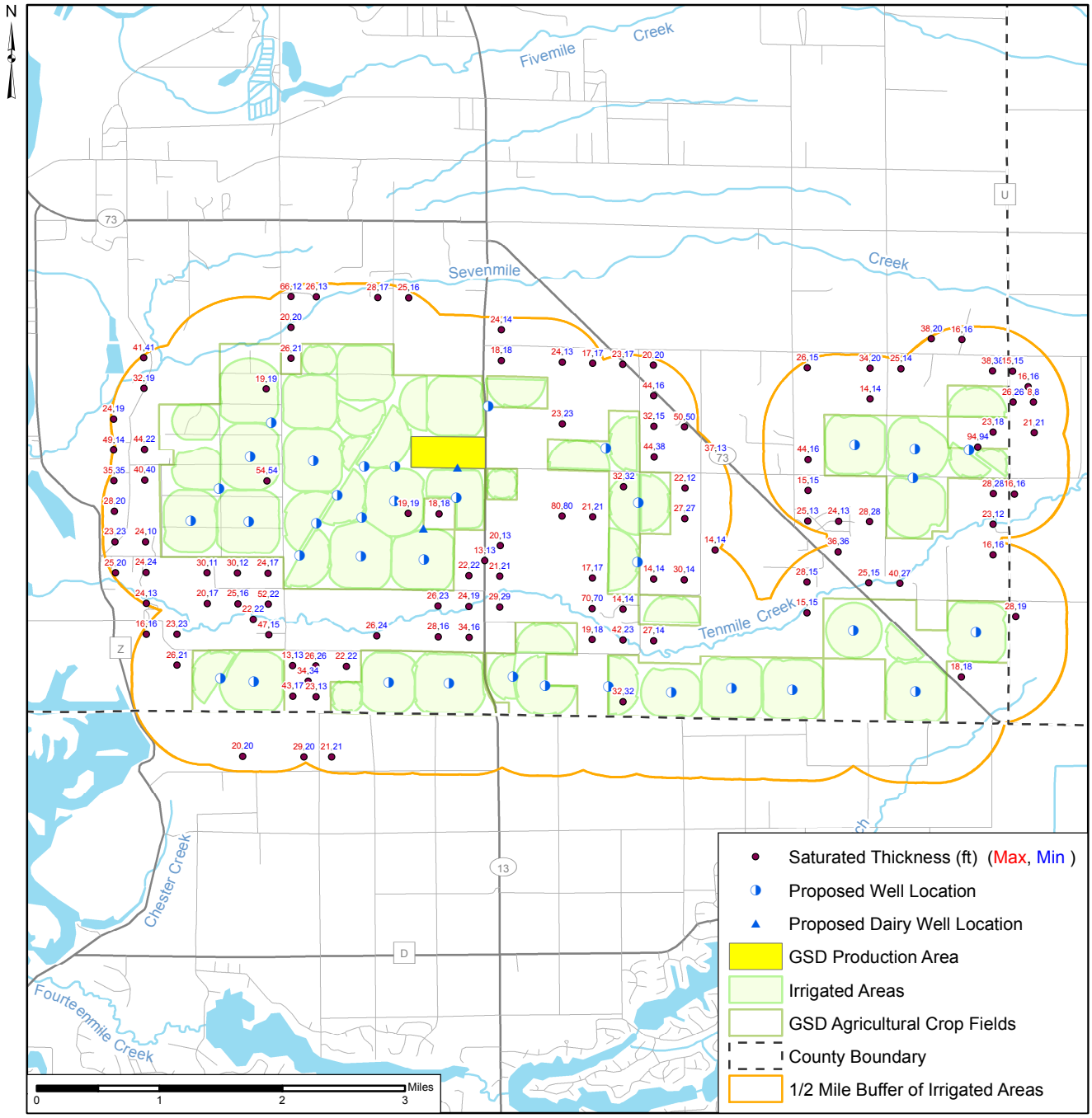
Note: Delineation of the Irrigated Areas are approximate. Residence locations are based on 2012 air photo.

Figure 2-5 Location of Nearby Residences



Note: Delineation of the Irrigated Areas are approximate

Figure 2-6 Depth of Wells Within One Half Mile of Irrigated Areas



Note: Delineation of the Irrigated Areas are approximate

Figure 2-7 Saturated Thickness for Wells Within One Half Mile of Irrigated Areas

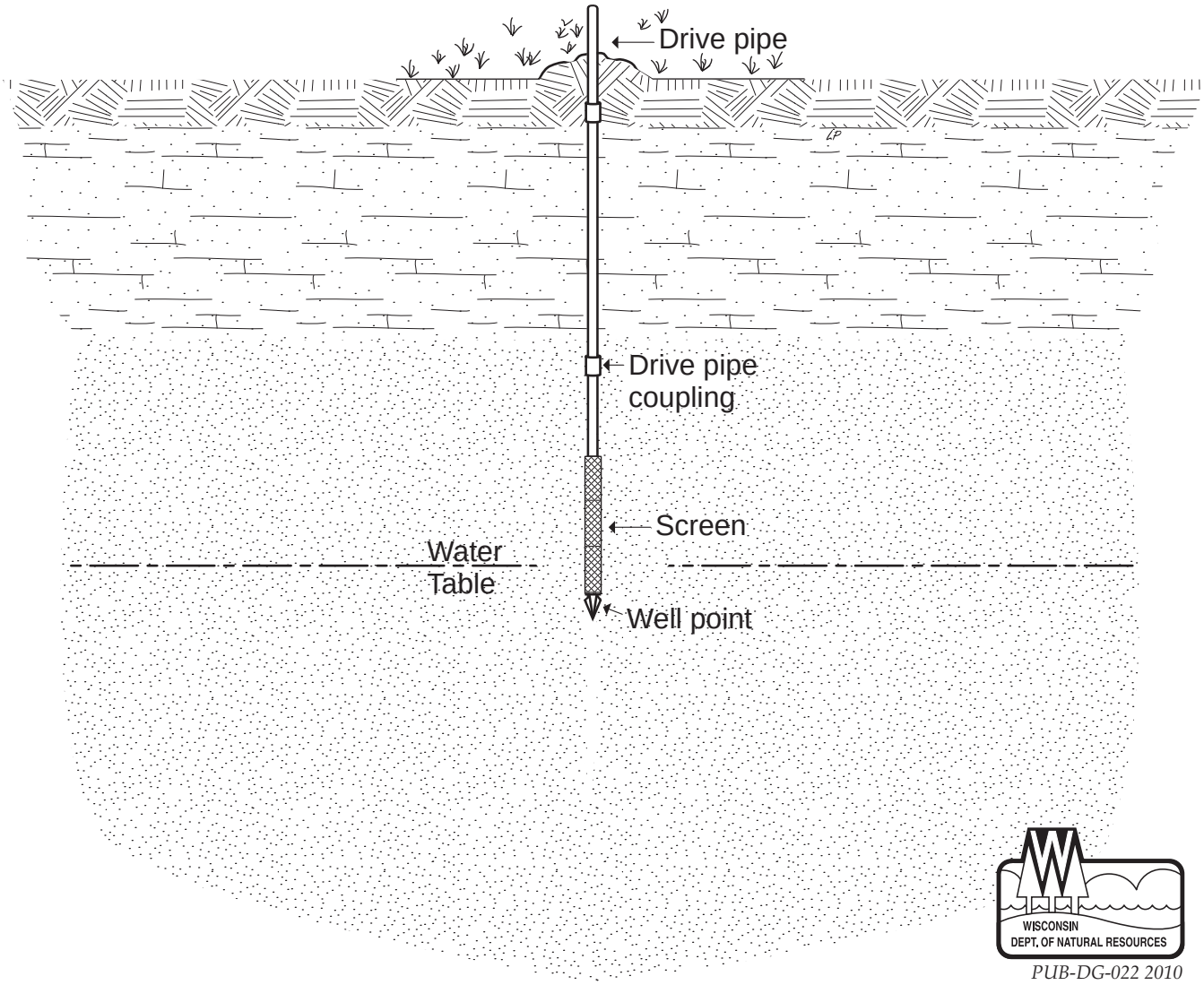
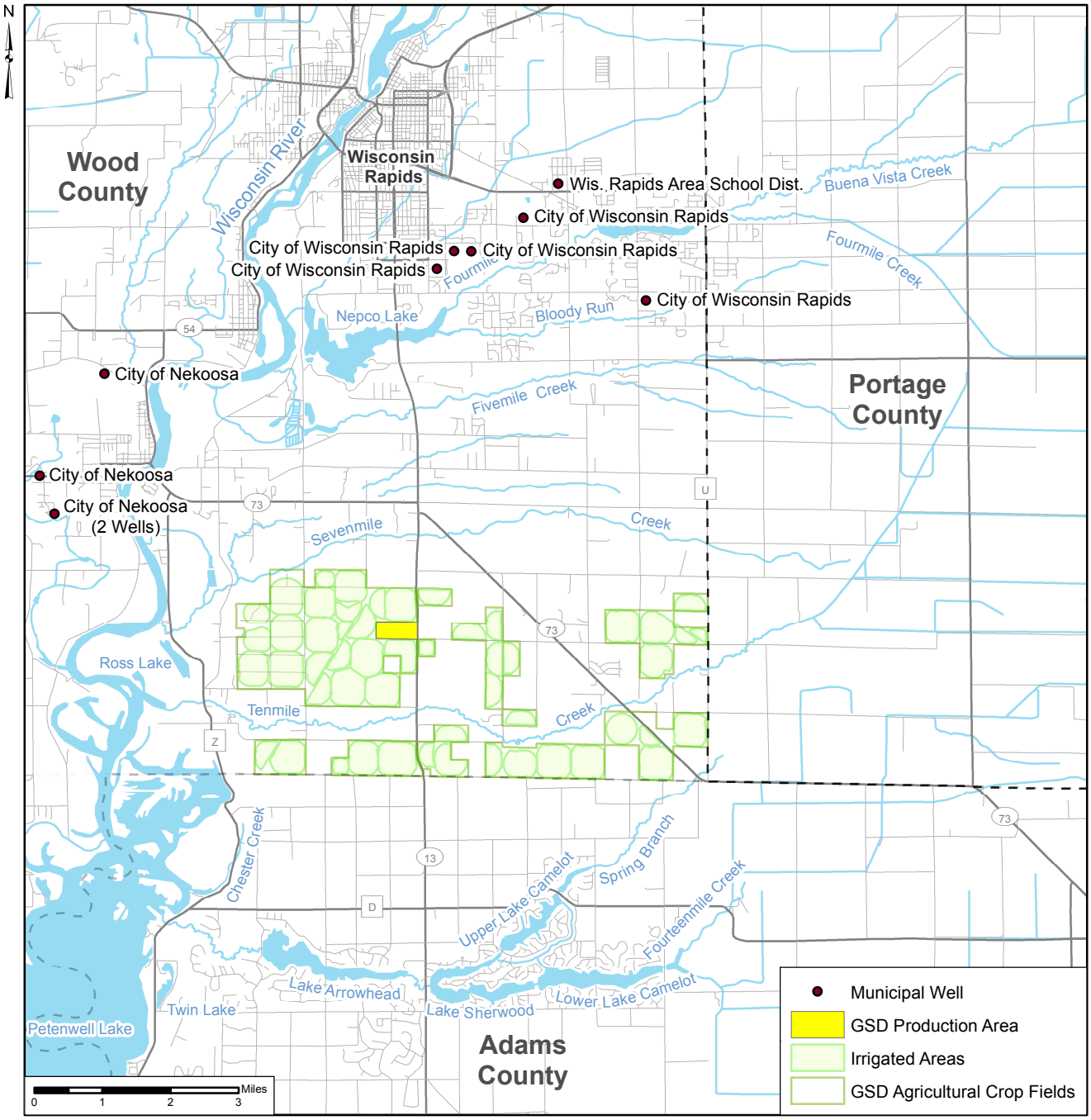
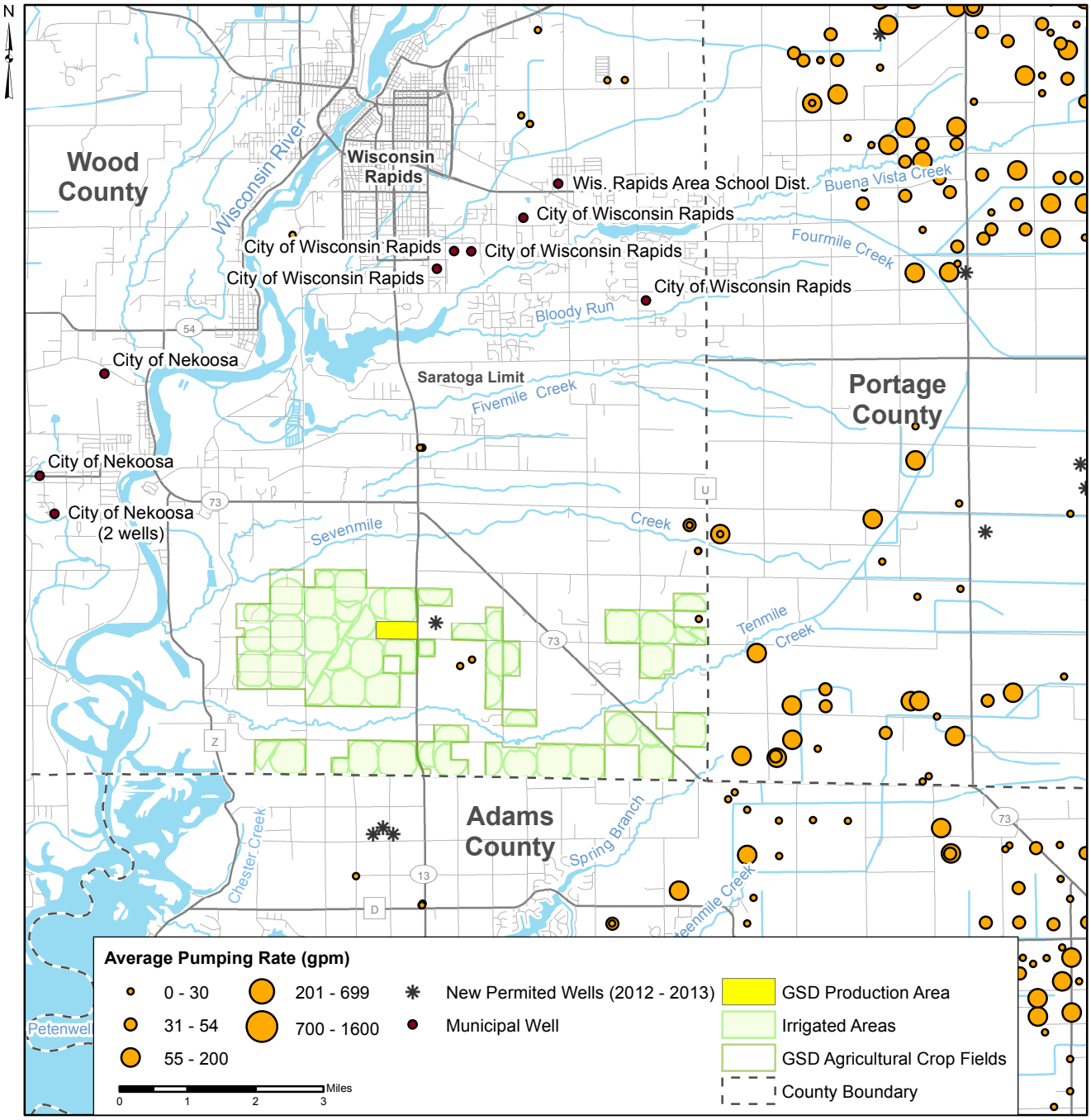


Figure 2-8 Schematic of Drive Point Well Construction



Note: Municipal Well locations are approximate

Figure 2-9 Location of Nearby Municipal Wells



Note: Municipal Well locations are approximate

Figure 2-10 High Capacity Well Locations near the GSD and Pumping Rates

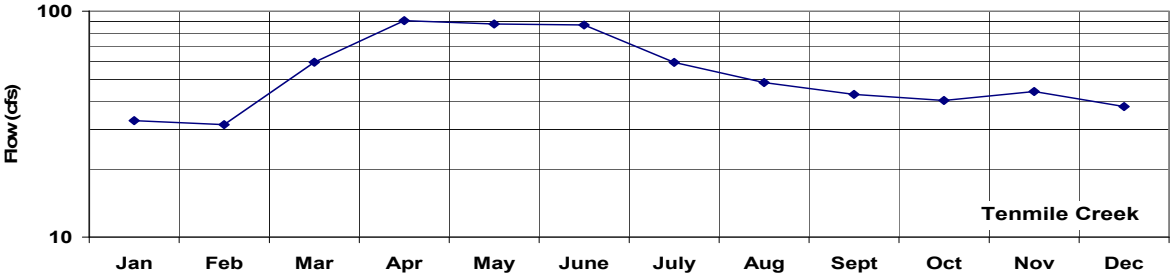


Figure 2-11 Average Monthly Base Flow of Tenmile Creek

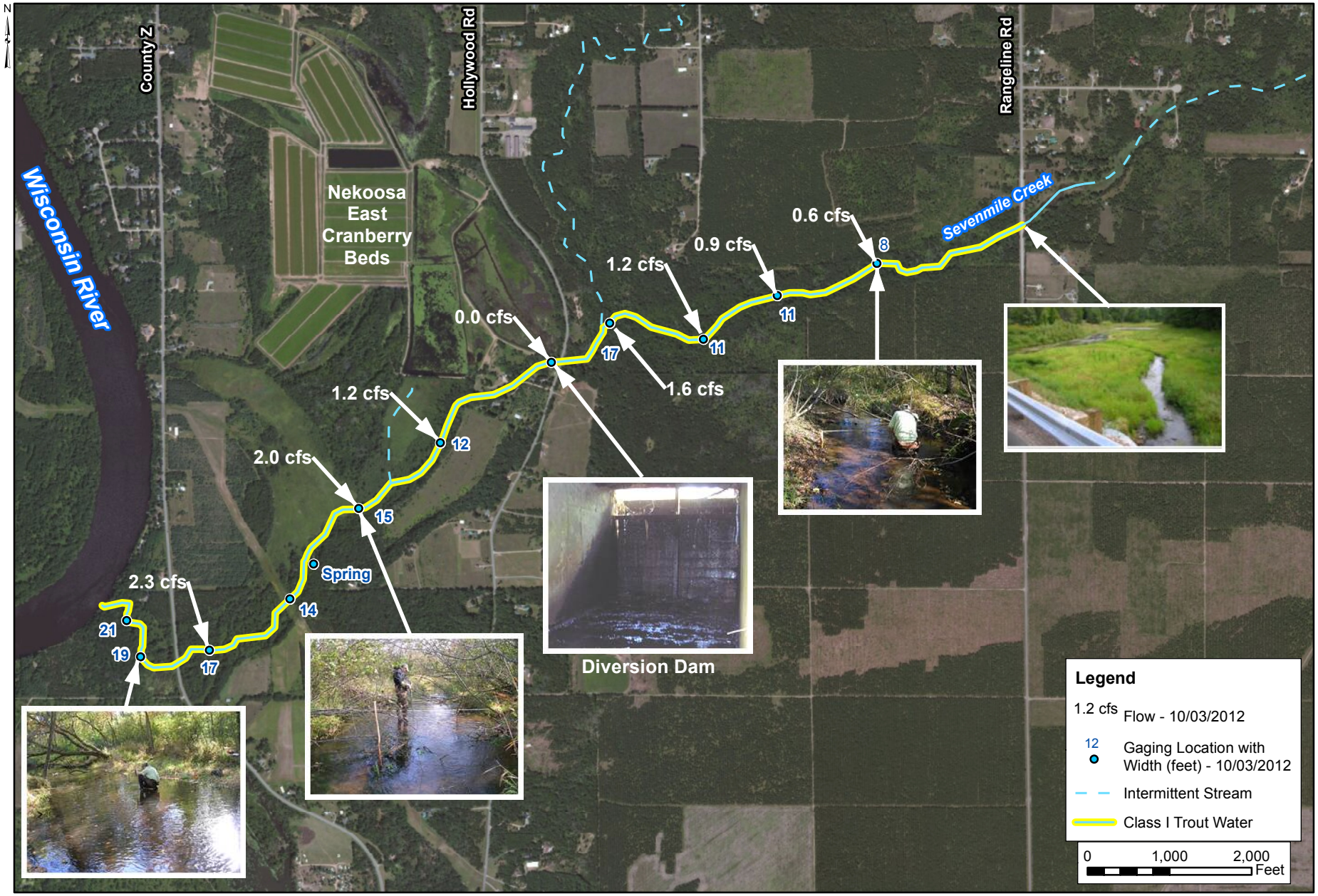
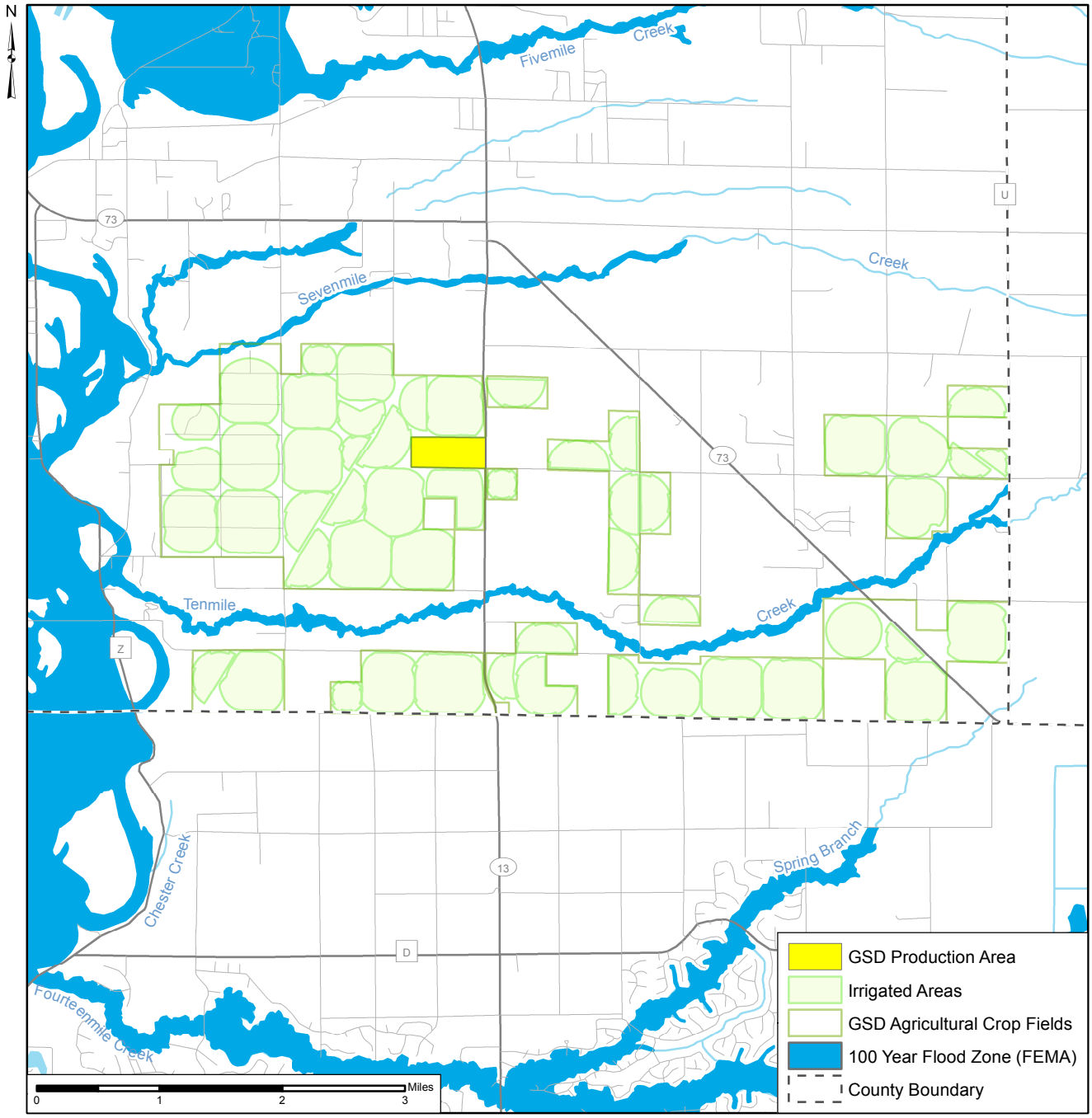
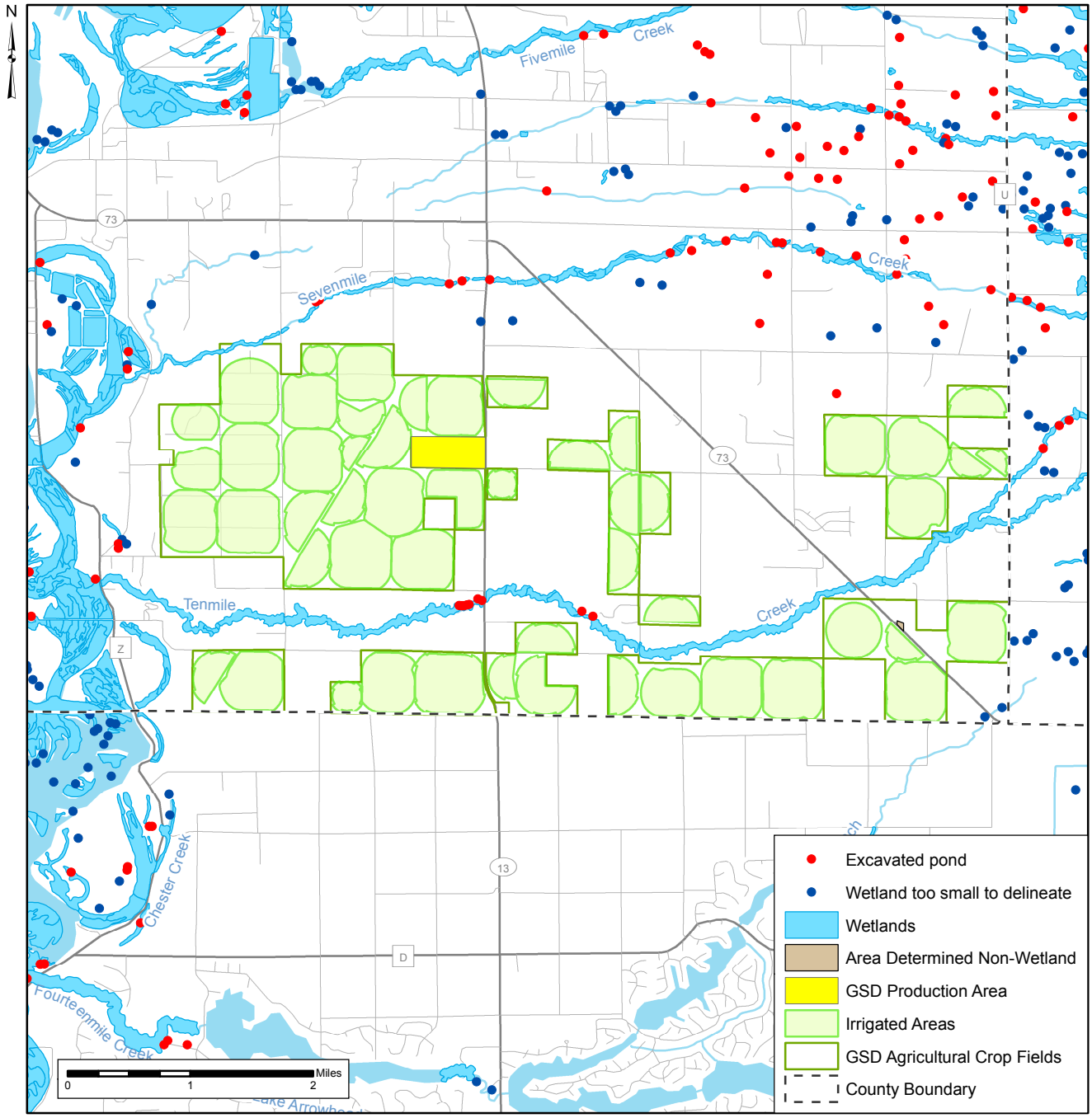


Figure 2-12 October 2012 Flow Measurements along Sevenmile Creek



100 Year Flood Zone Source: Federal Emergency Management Agency (FEMA)

Figure 2-13 Water Resources Map



Note: Delineation of the Irrigated Areas are Approximate

Source: WDNR Wetland Inventory, May 2013

Figure 2-14 Wetlands near the Project Area

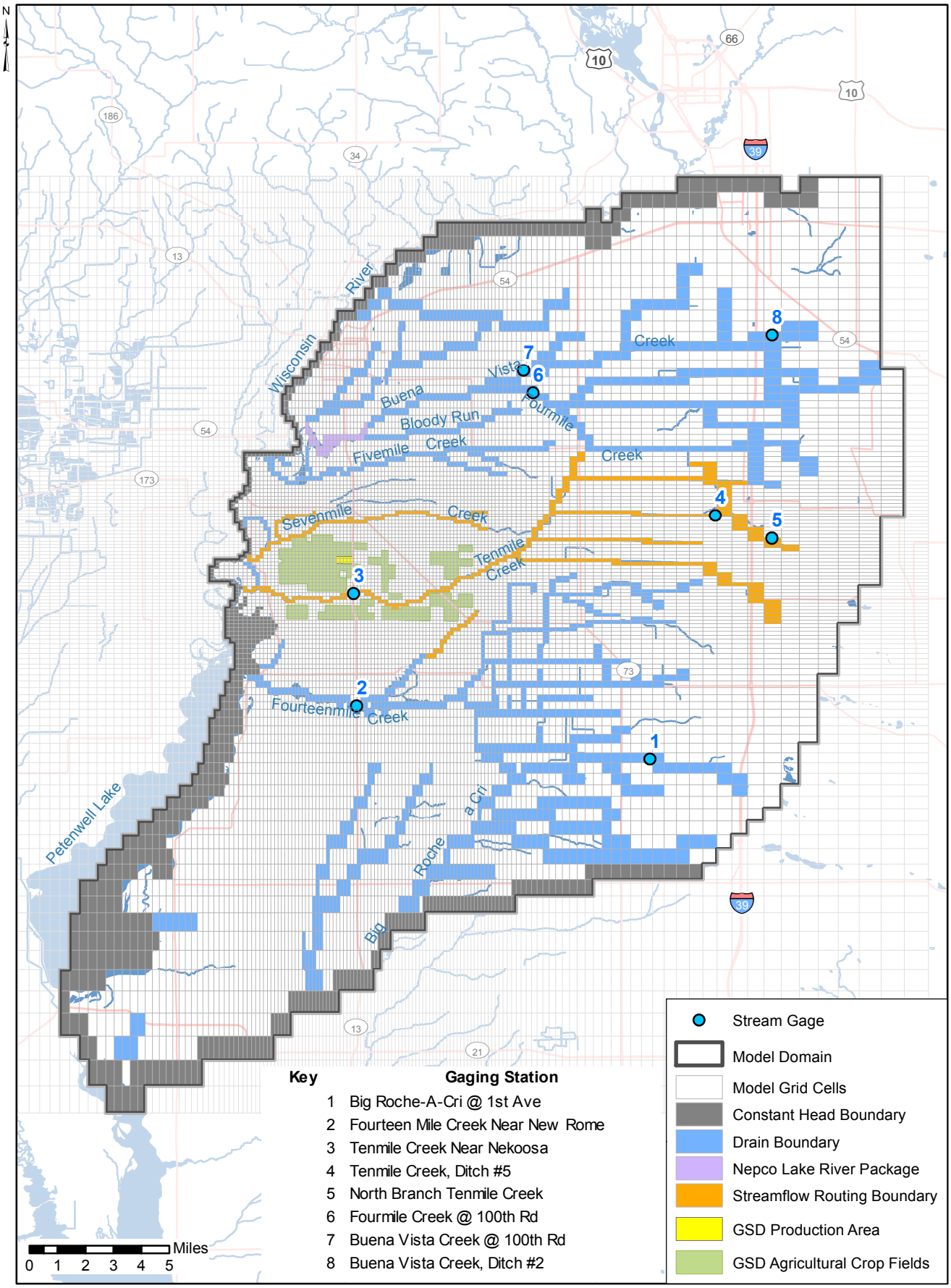


Figure 2-15 Model Domain and Boundary Conditions and Stream Gaging Locations

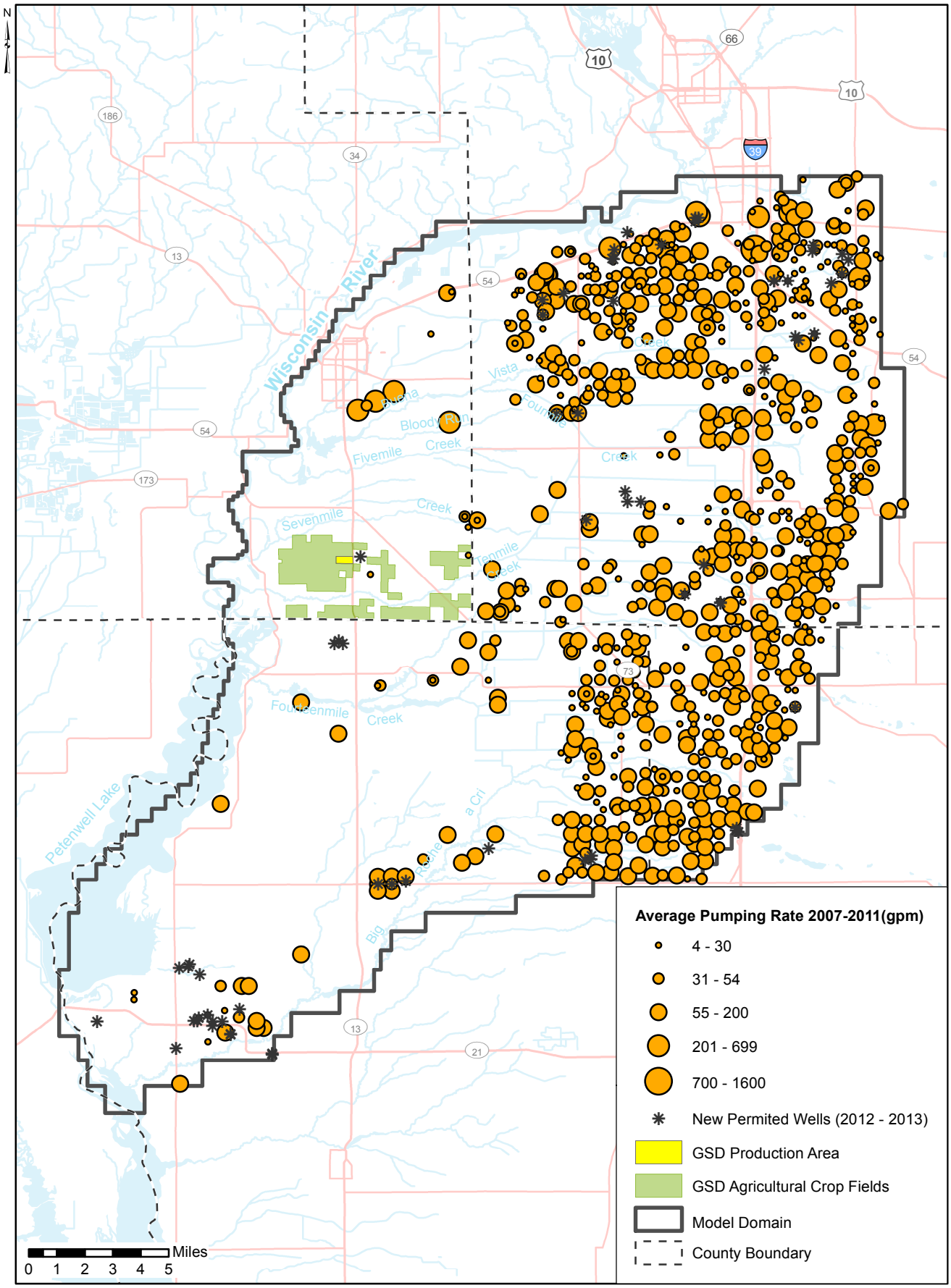


Figure 2-16 Location of High Capacity Wells in Model Area

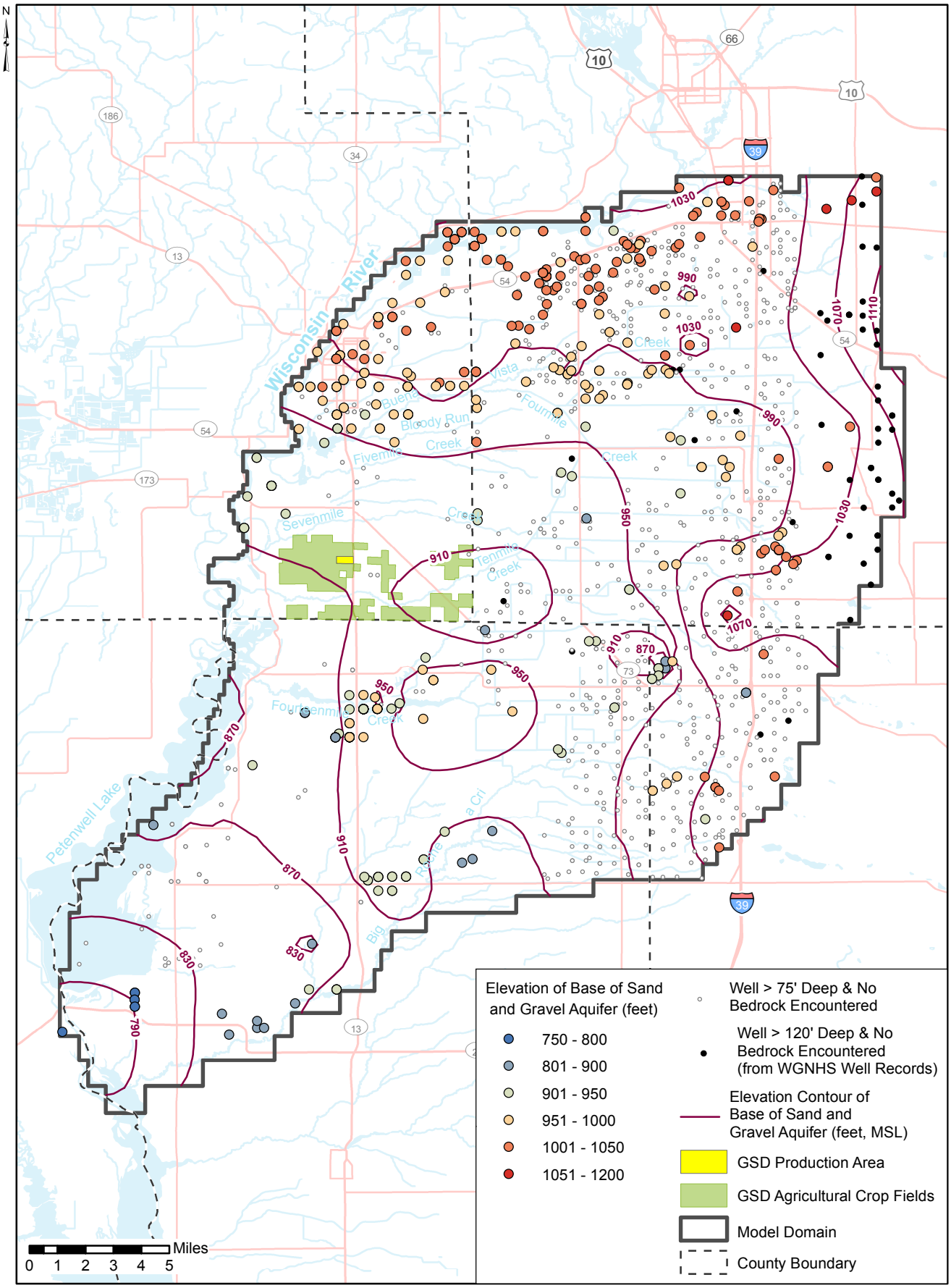


Figure 2-17 Base of the Sand and Gravel Aquifer

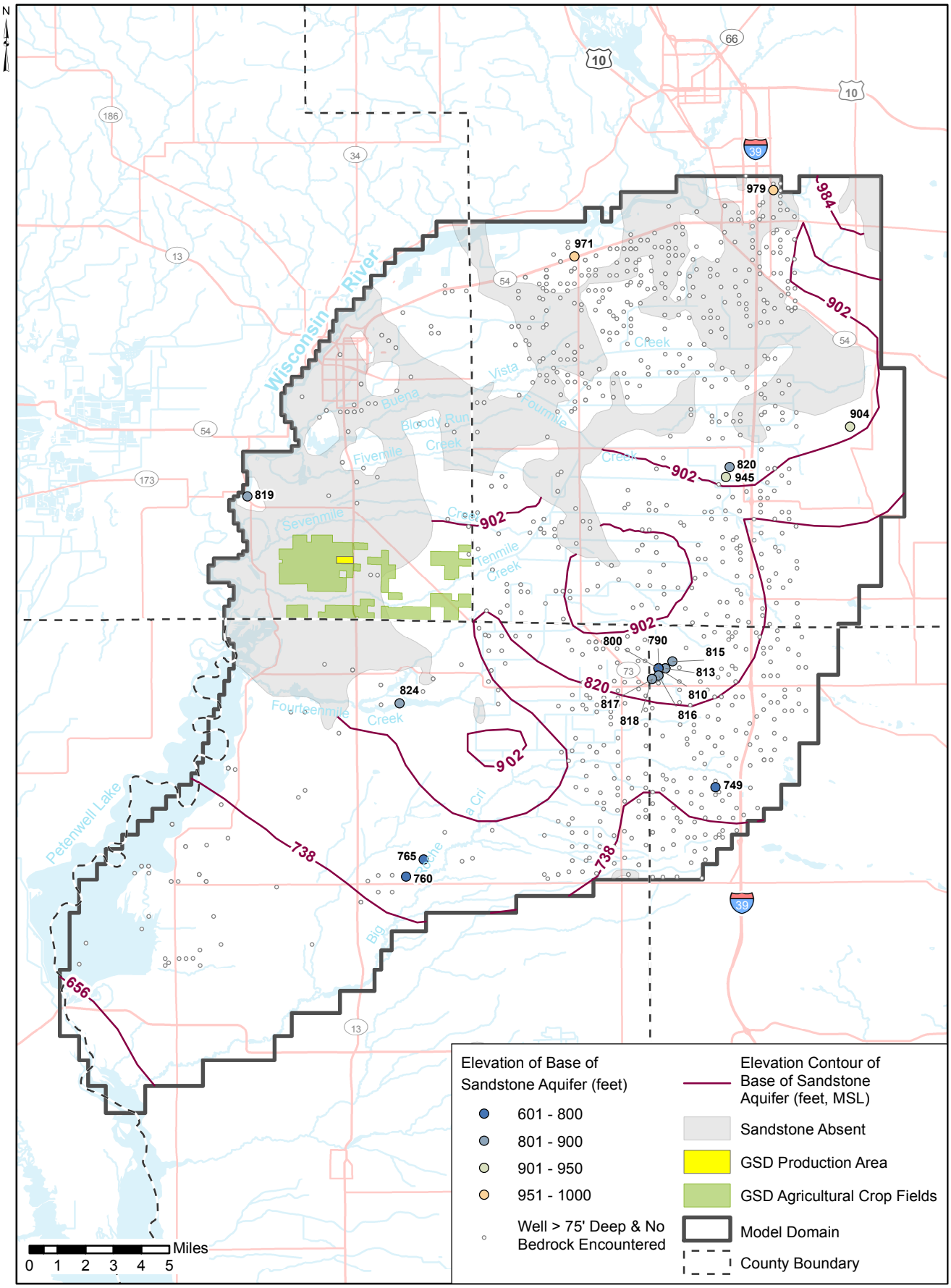


Figure 2-18 Base of the Sandstone Aquifer

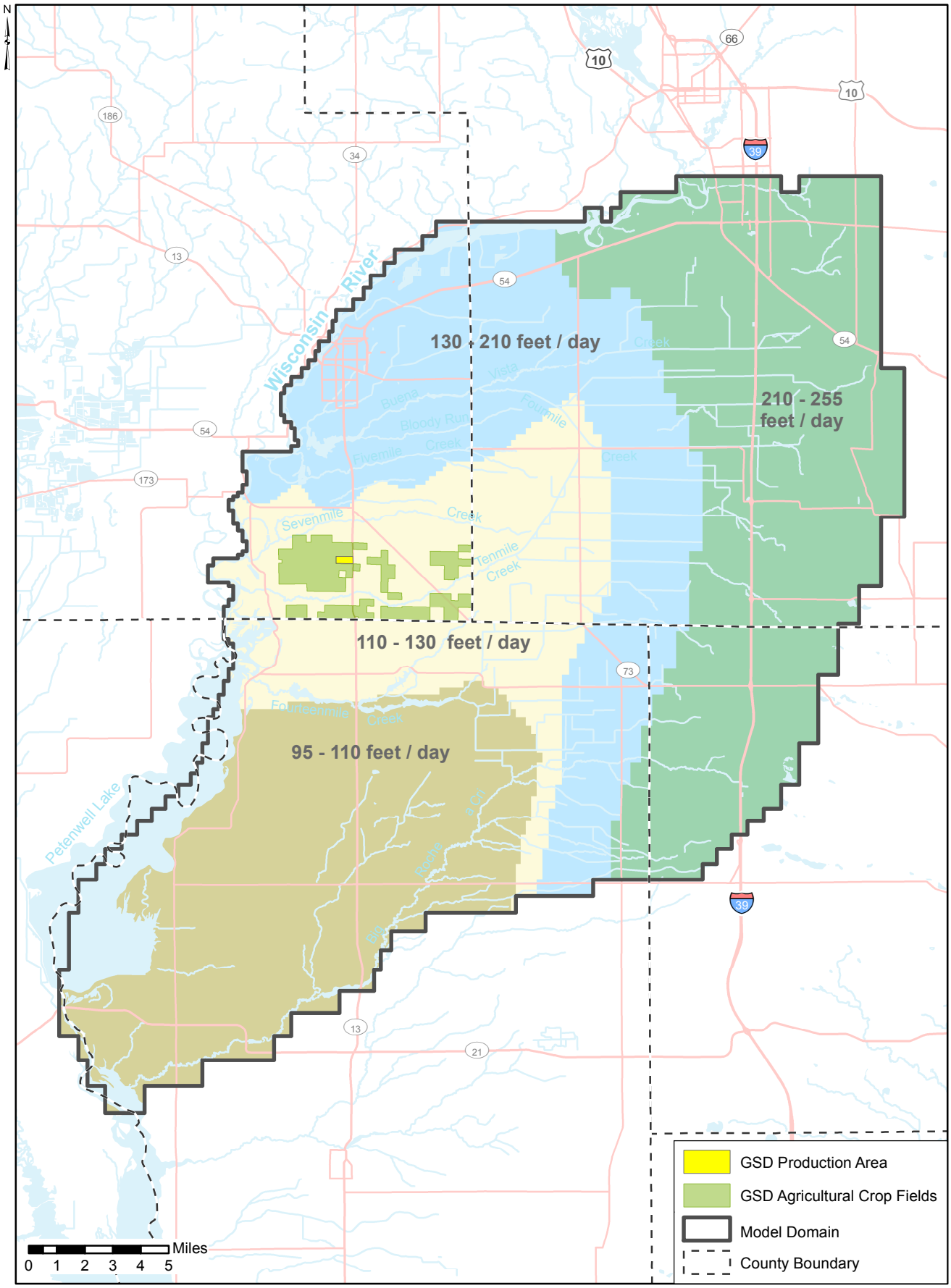


Figure 2-19 Calibrated Hydraulic Conductivity of Sand and Gravel Aquifer

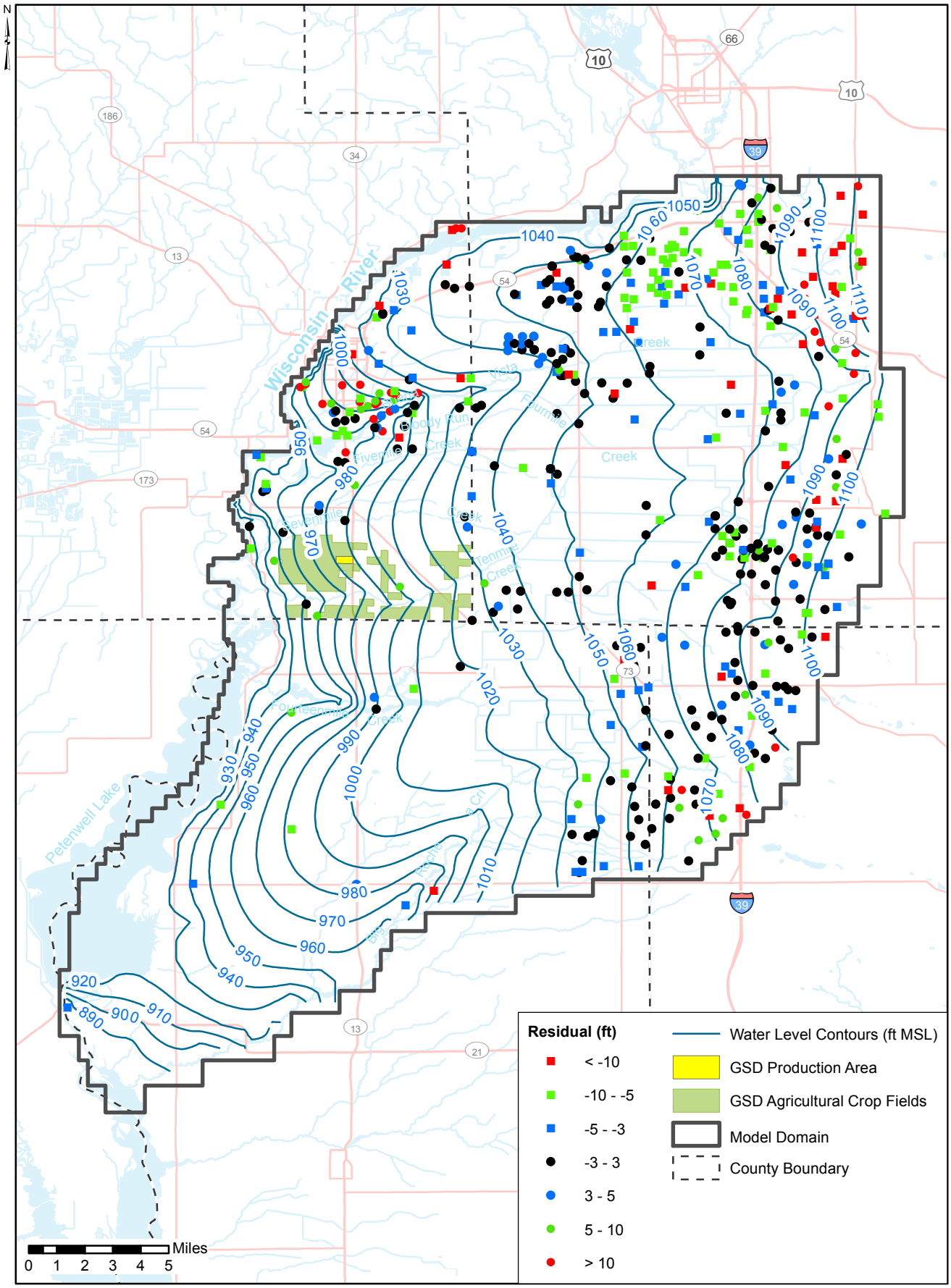


Figure 2-20 Calculated Water Levels in Model Area

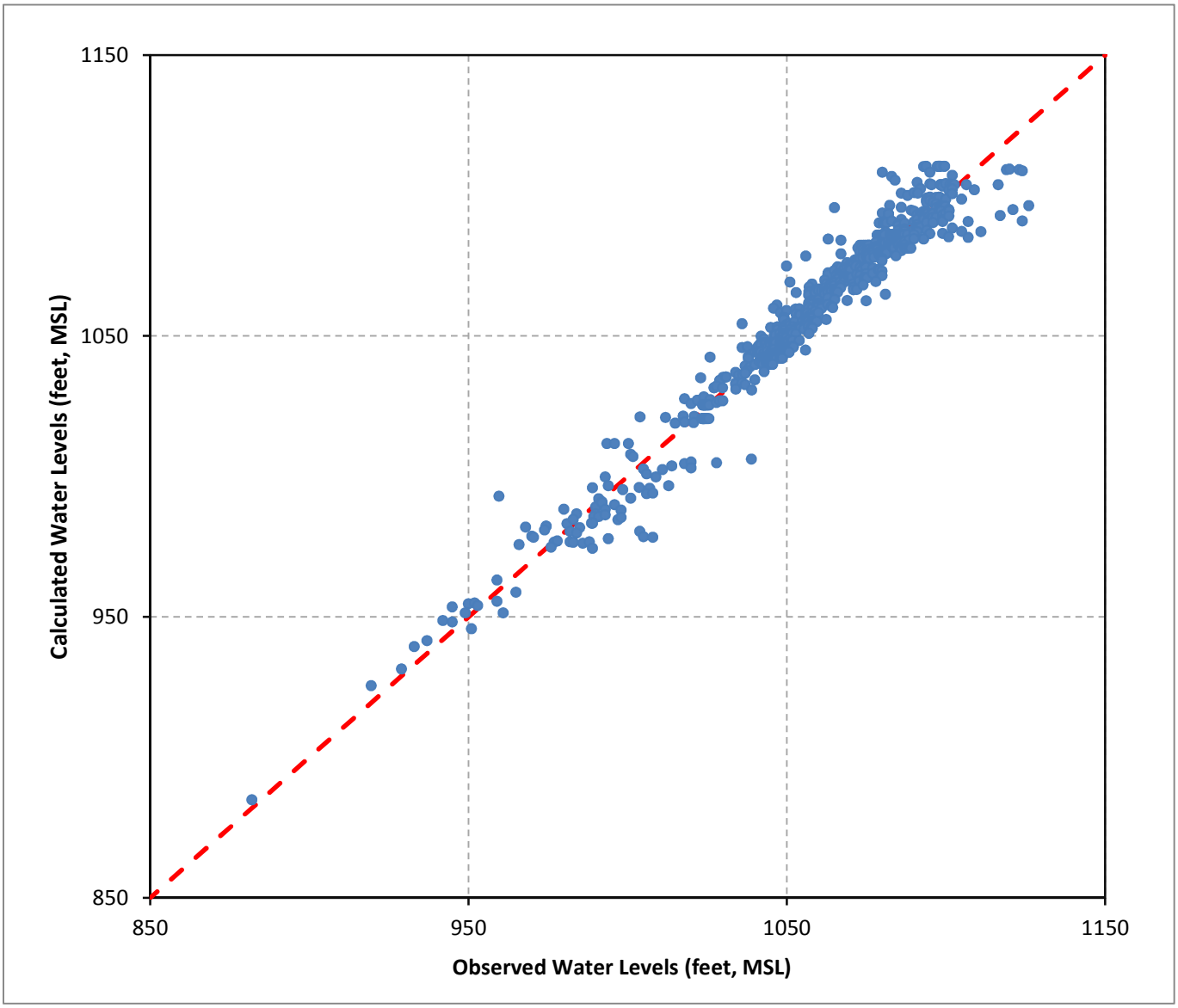
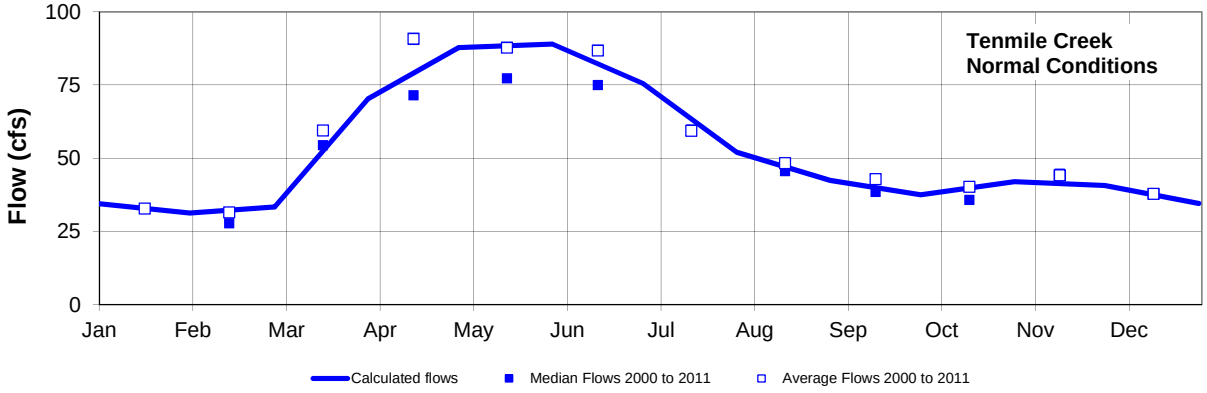


Figure 2-21 Observed versus Calculated Water Levels



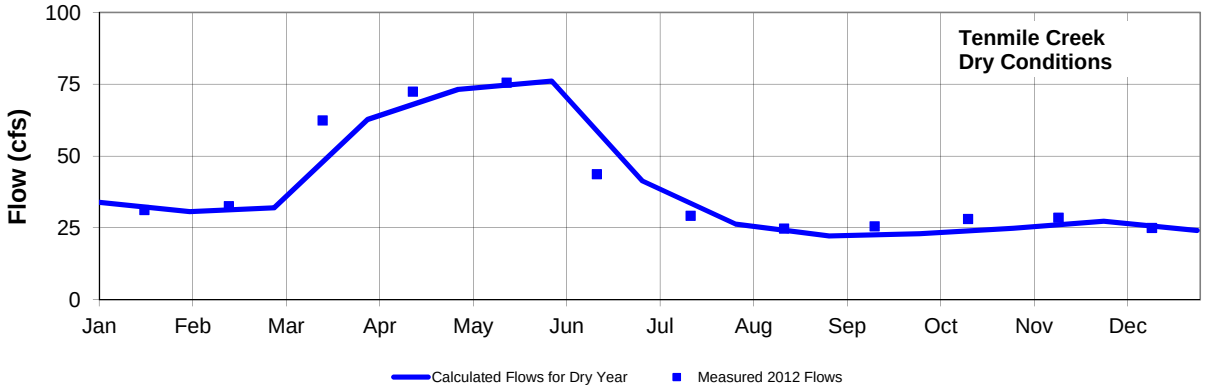


Figure 2-22 Comparison of Calculated and Measured Streamflows in Tenmile Creek

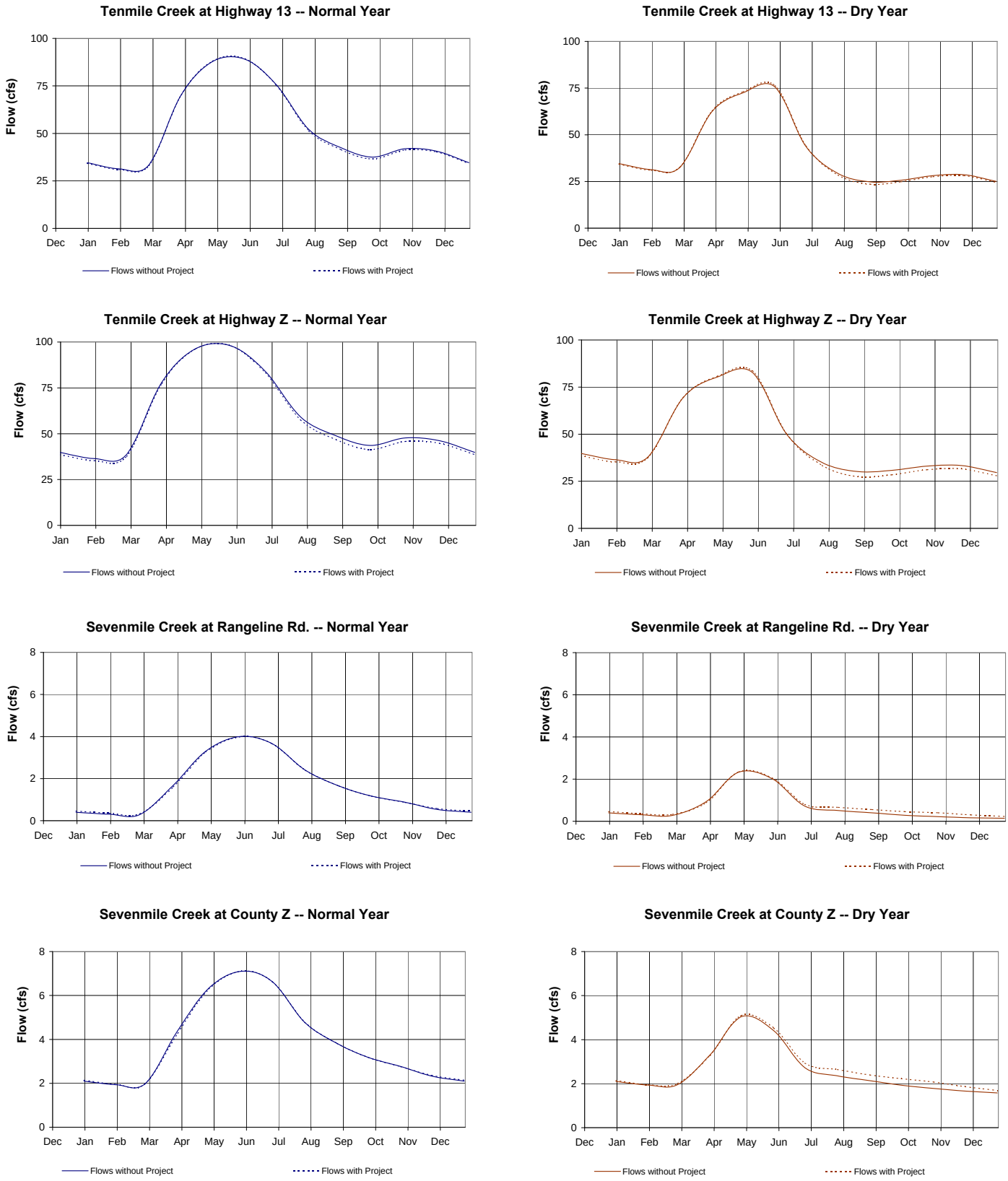
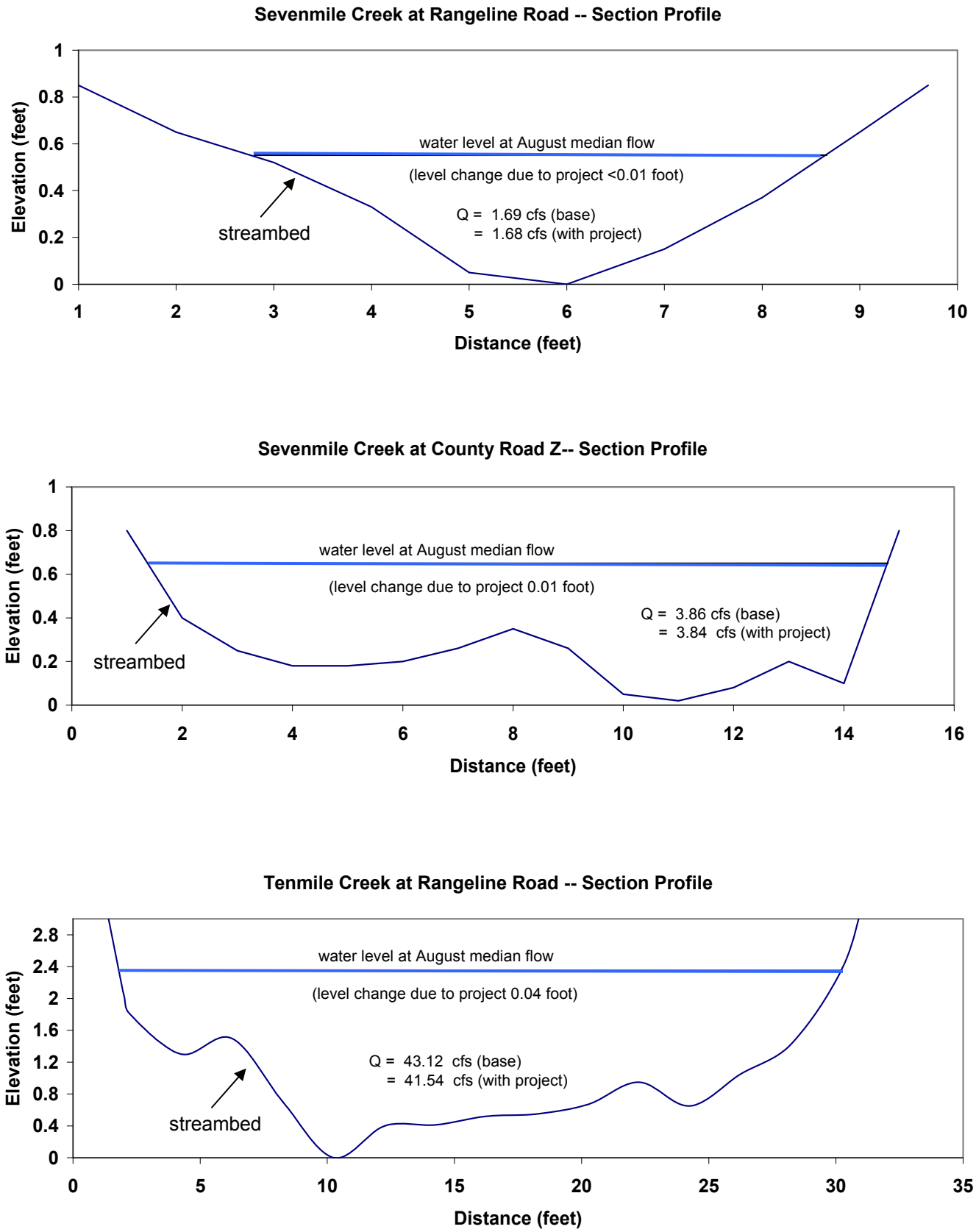
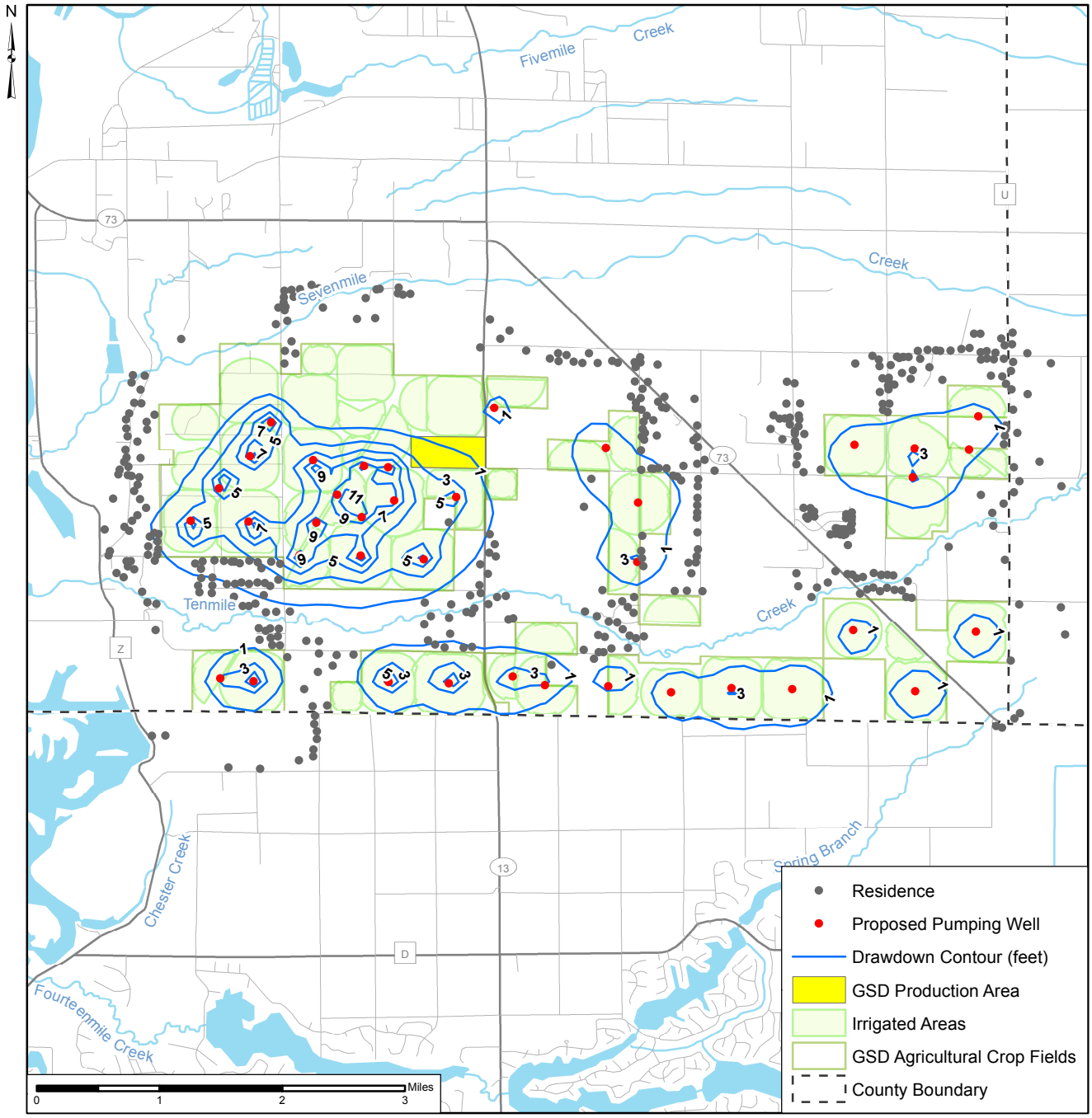


Figure 2-23 Calculated Flows in Tenmile Creek and Sevenmile Creek with and without Project



Note: Elevations referenced to bottom of stream

Figure 2-24 Cross-Section Profiles of Sevenmile Creek and Tenmile Creek



Note: Residential locations are based on 2012 air photo

Figure 2-25 Calculated Drawdowns In July - Dry Year

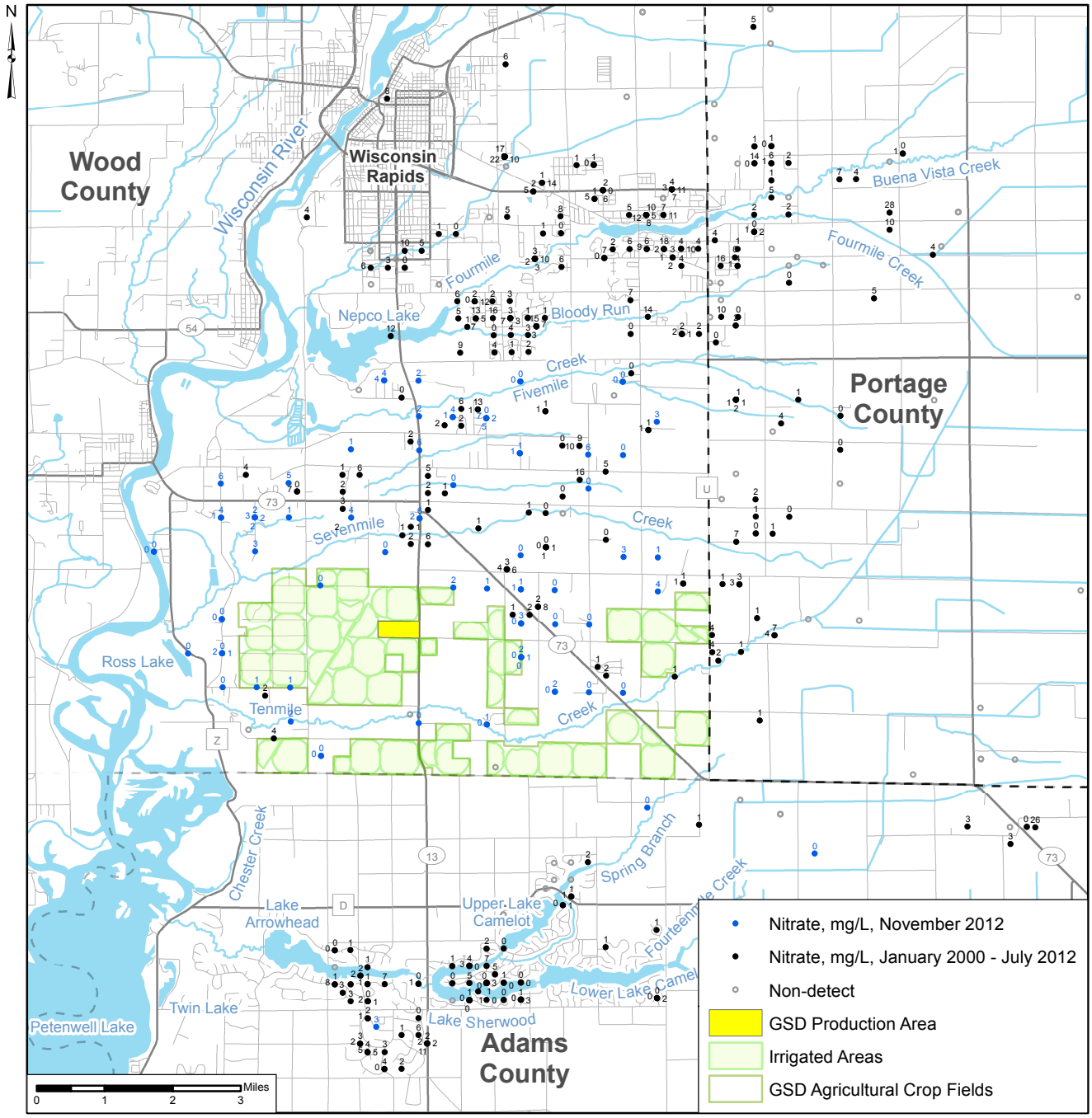
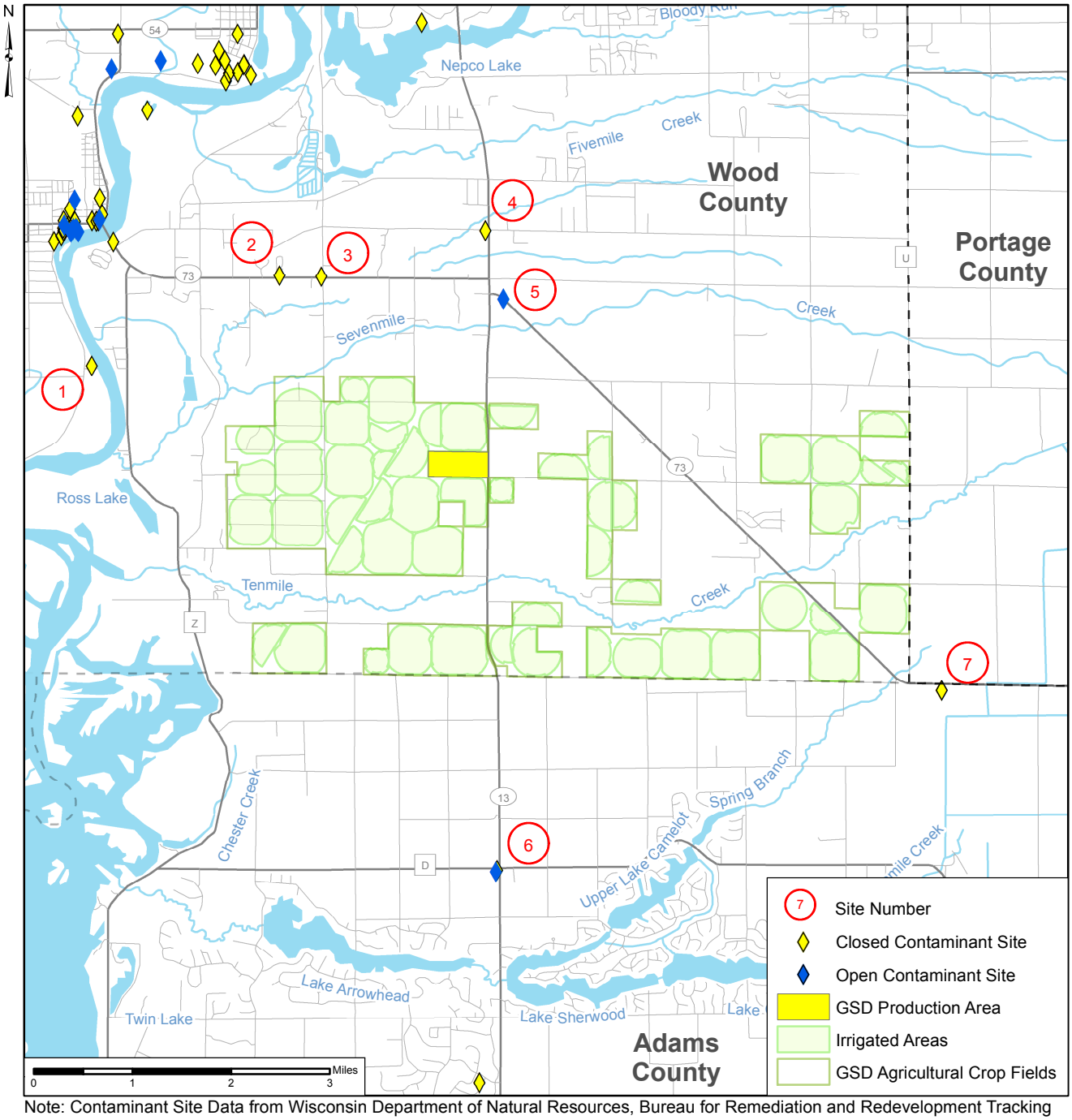


Figure 2-26 Nitrate Concentrations In Groundwater



Note: Contaminant Site Data from Wisconsin Department of Natural Resources, Bureau for Remediation and Redevelopment Tracking System (BRRTS).
Site numbers are described in Table 2-9.

Figure 2-27 Known Contaminant Sites Near the Project Area from BRRTS

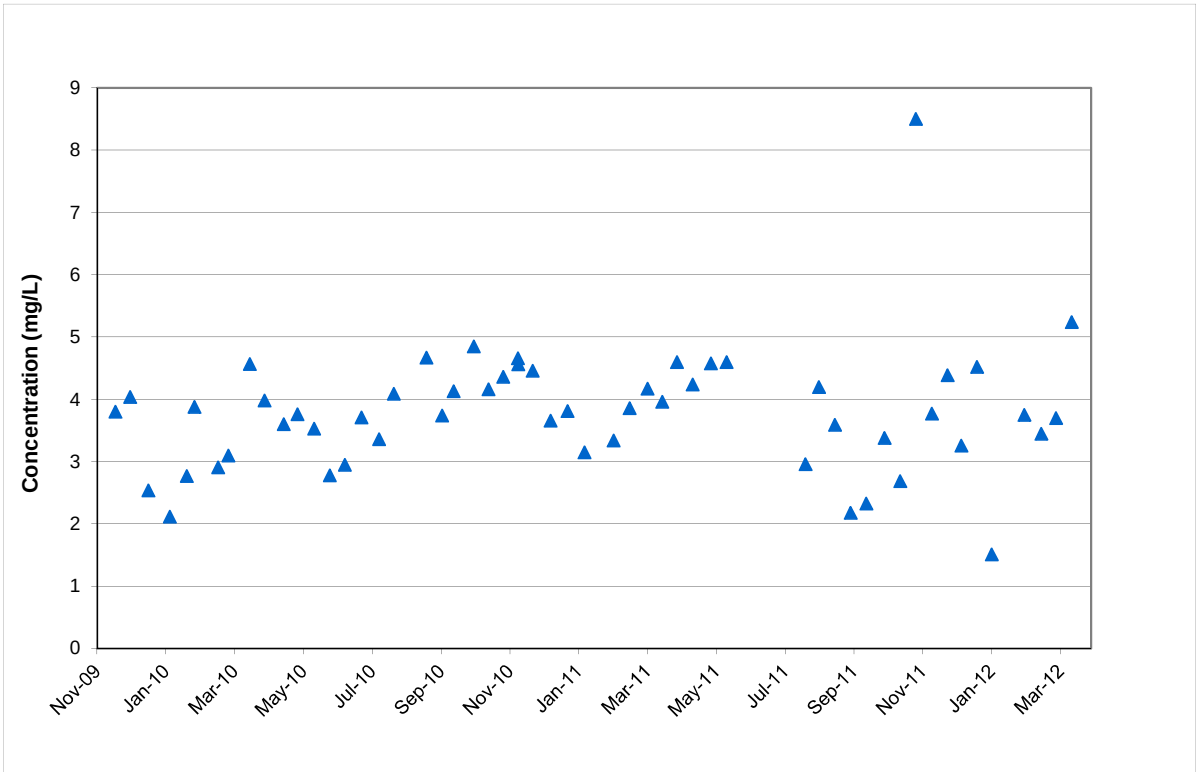


Figure 2-28 Nitrate Concentrations in Tenmile Creek at Rangeline Road

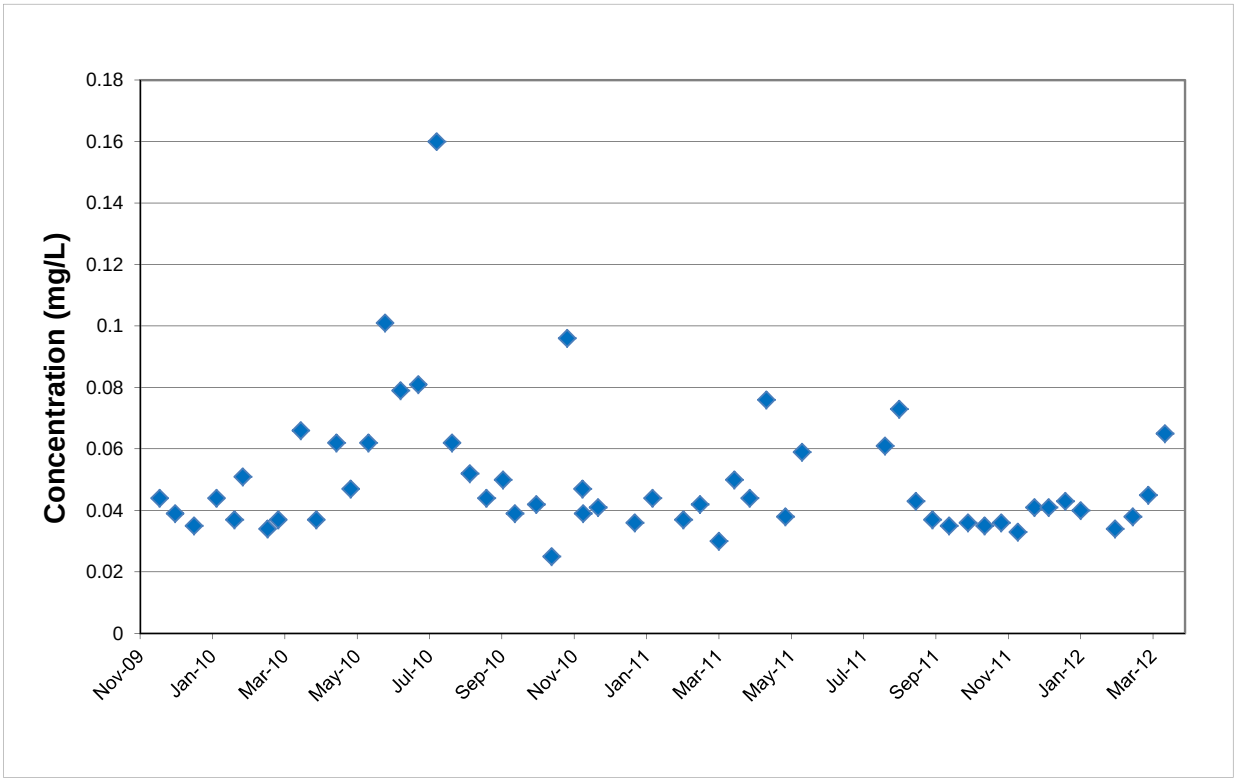
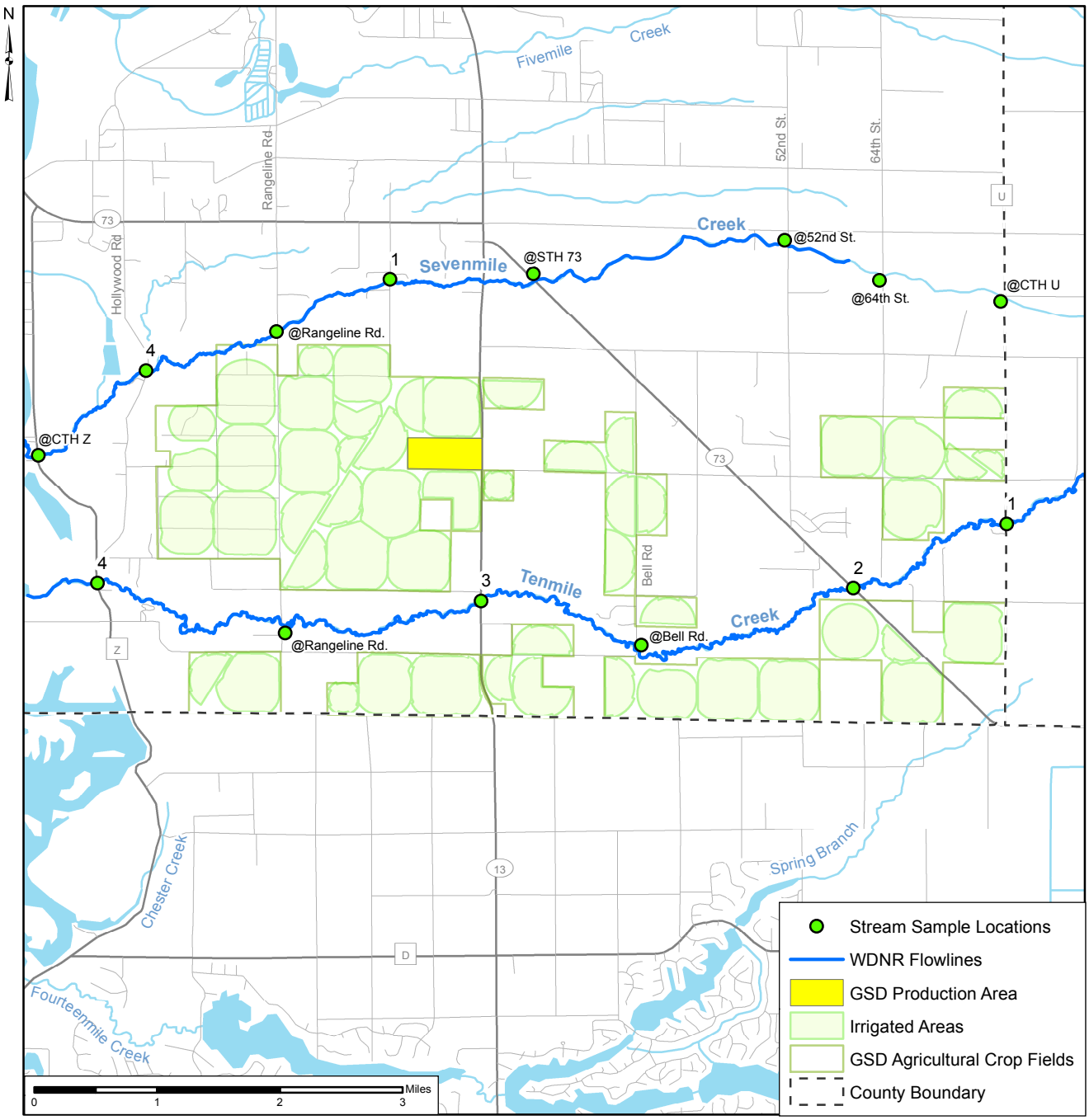
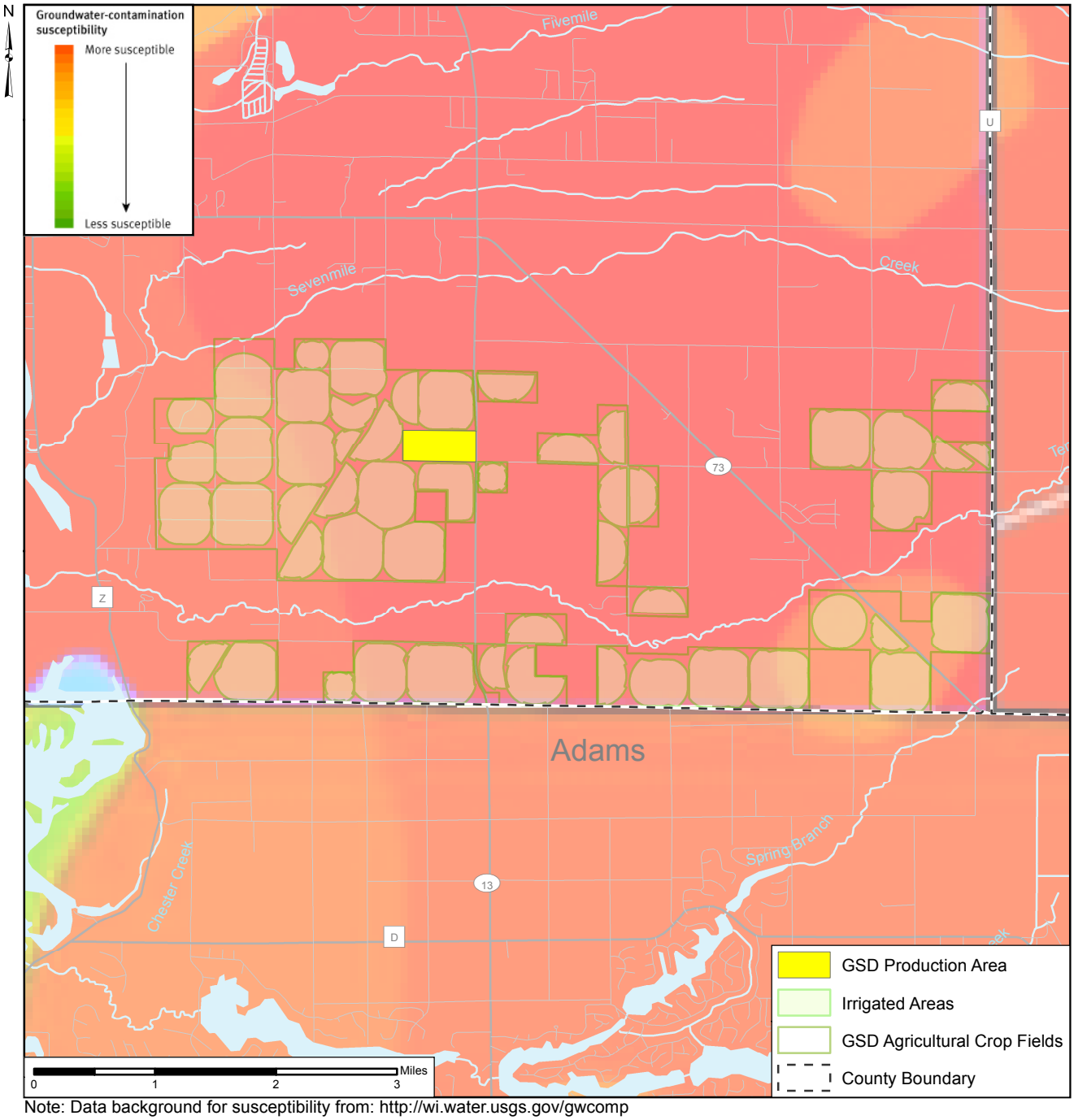


Figure 2-29 Total Phosphorus Concentrations in Tenmile Creek at Rangeline Road



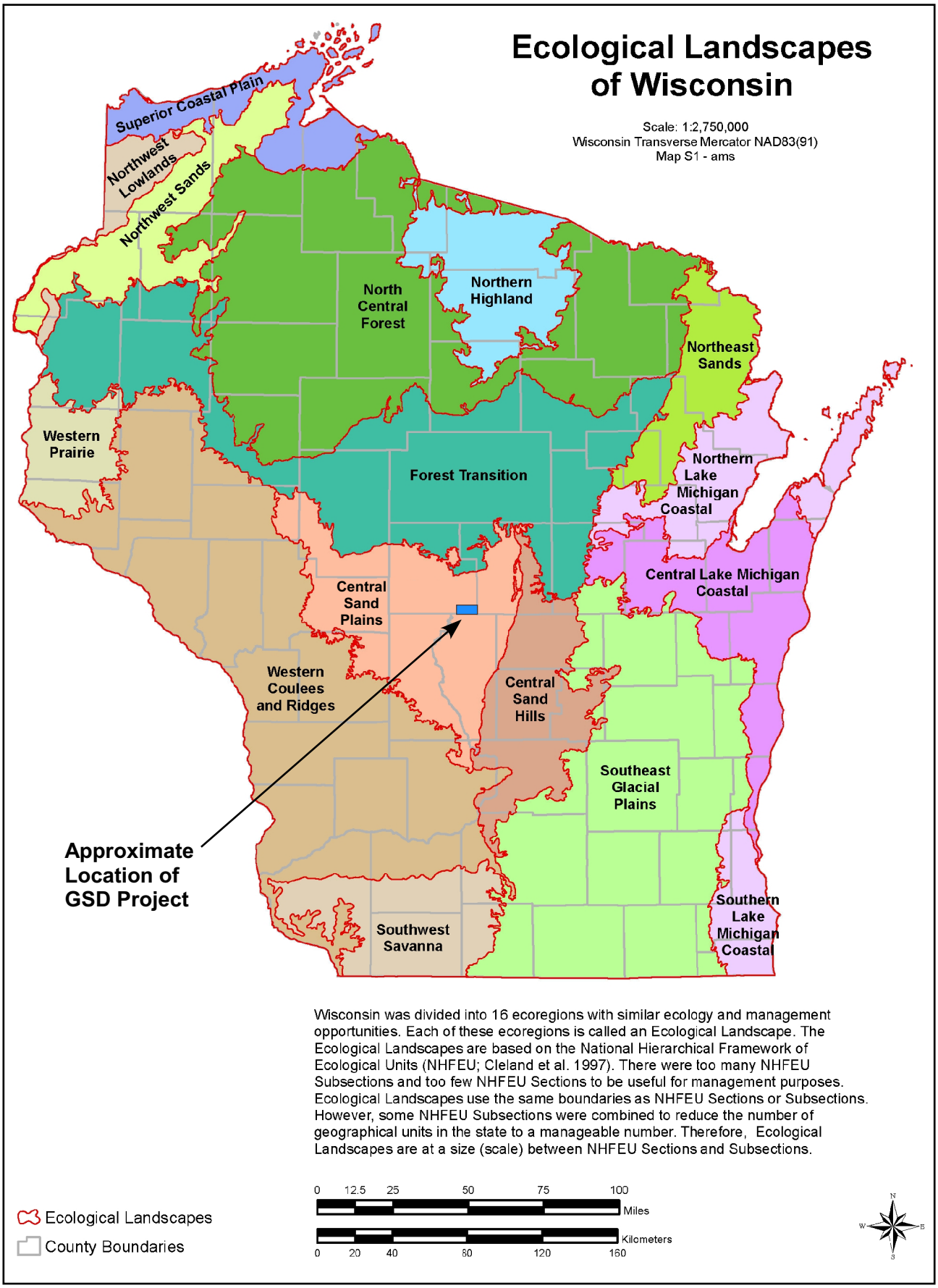
Note: Delineation of the Irrigated Areas are approximate

Figure 2-30 Map of Stream Sample Locations Along Sevenmile and Tenmile Creeks



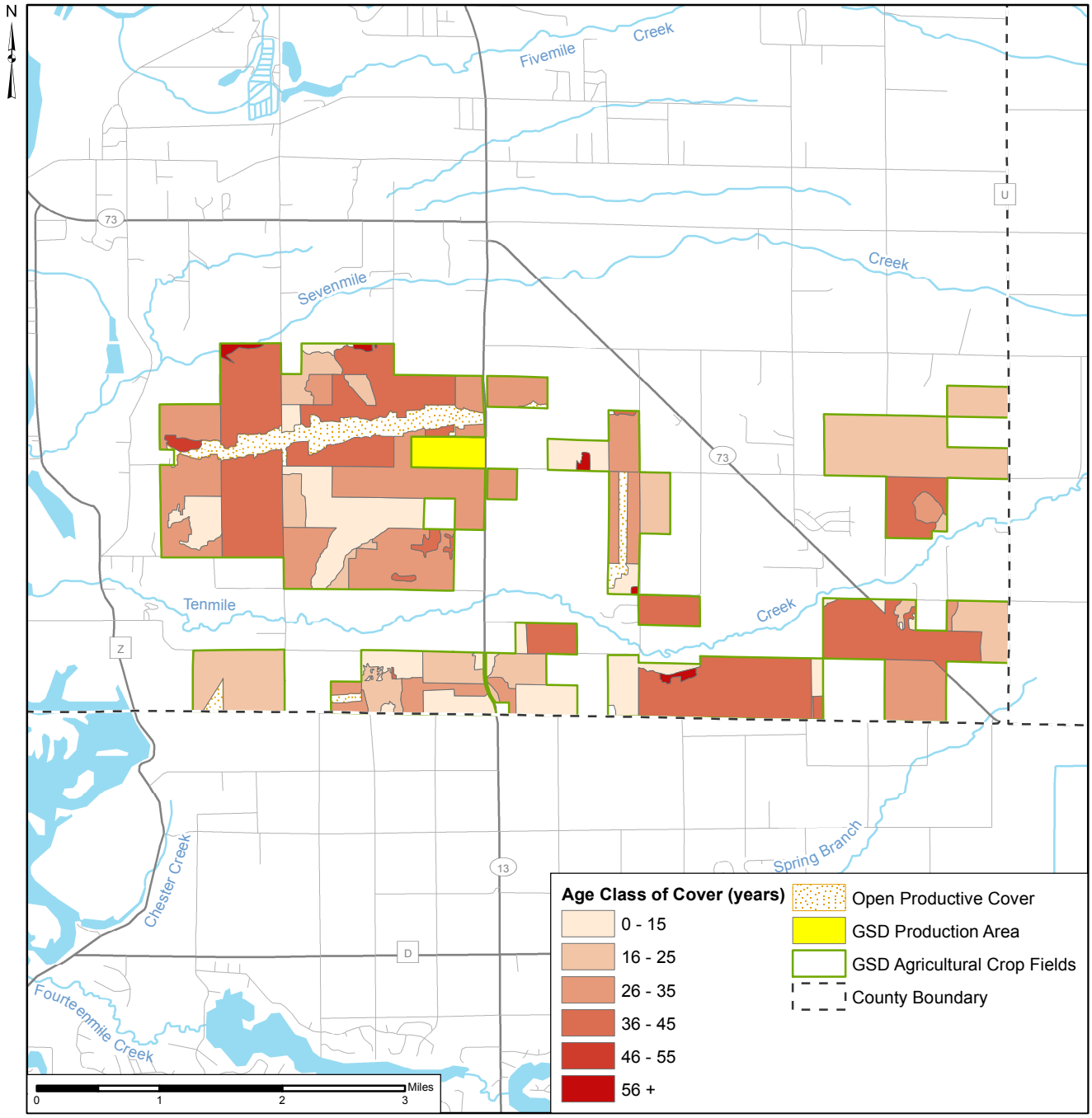
Note: Data background for susceptibility from: http://wi.water.usgs.gov/gwcomp

Figure 2-31 Groundwater Contamination Susceptibility Map



Source: Ecological Landscapes of Wisconsin Handbook - 12805.1

Figure 2-32 Ecological Landscapes of Wisconsin



Sorce: Provided by Plumb Creek Timber Co.

Figure 2-33 Map of Age of Forest Cover In Project Area

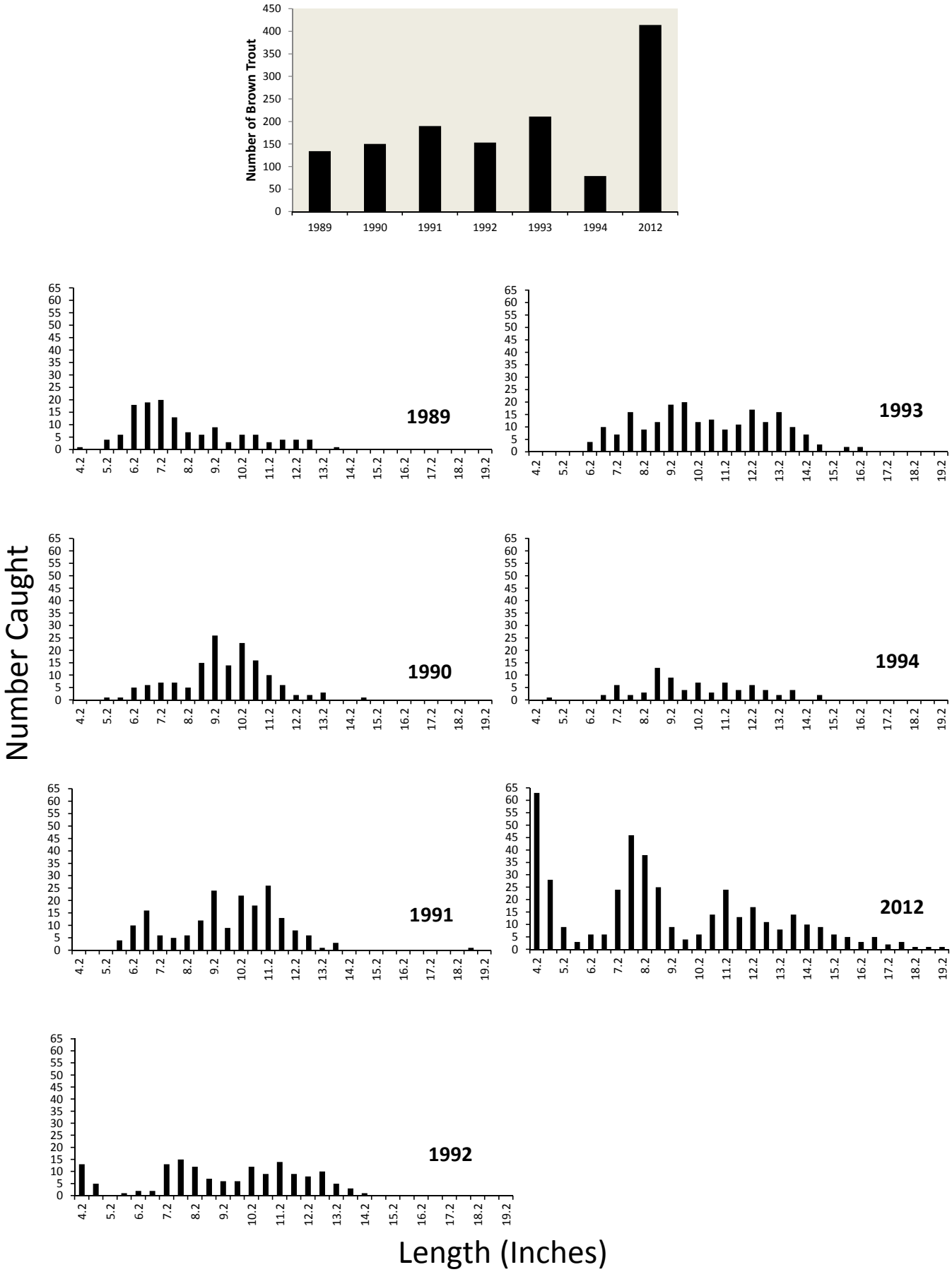


Figure 2-34 Brown Trout Survey Results, Tenmile Creek, Gasline to Rangeline Road

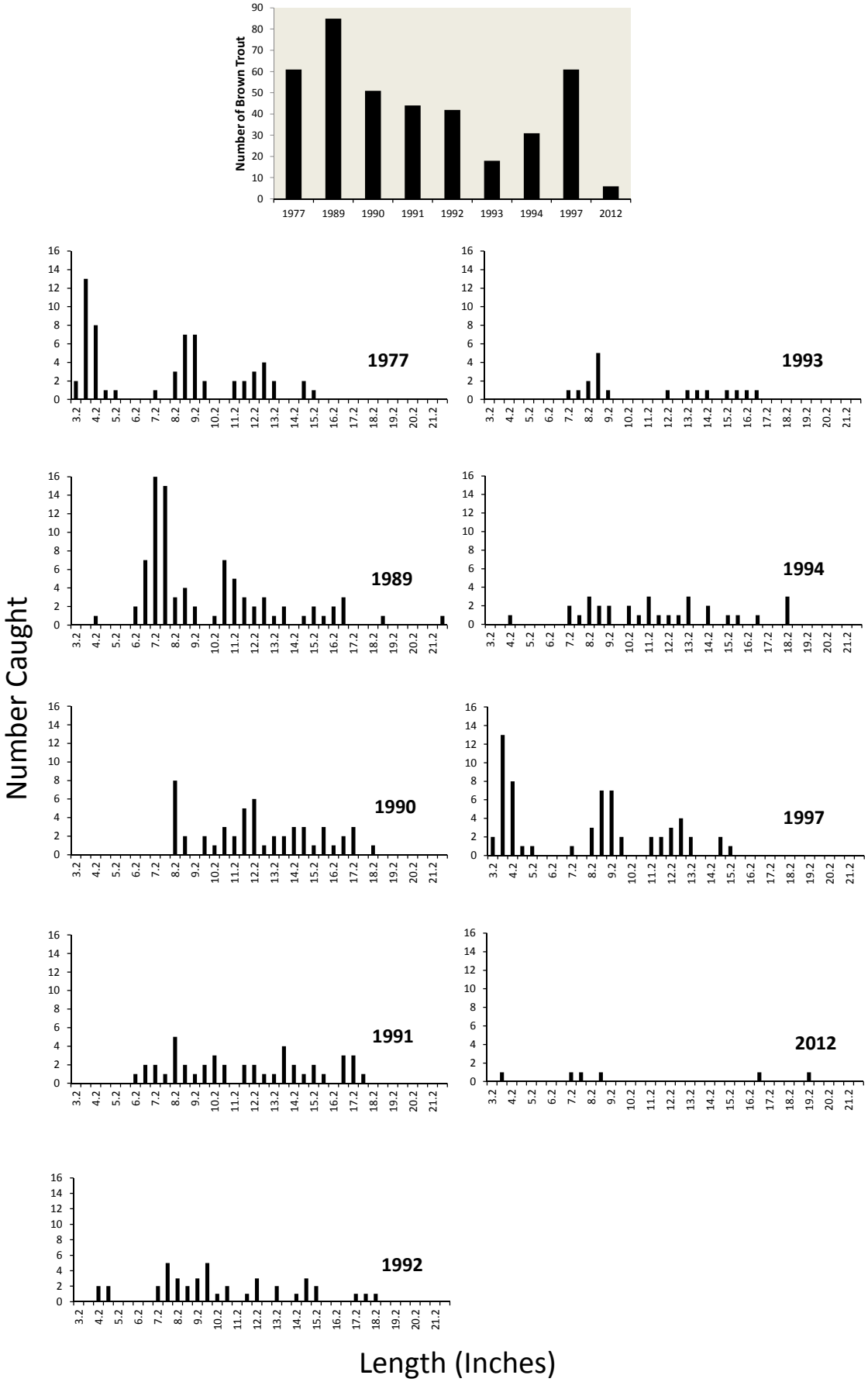


Figure 2-35 Brown Trout Survey Results, Tenmile Creek, Wisconsin River to County Road Z

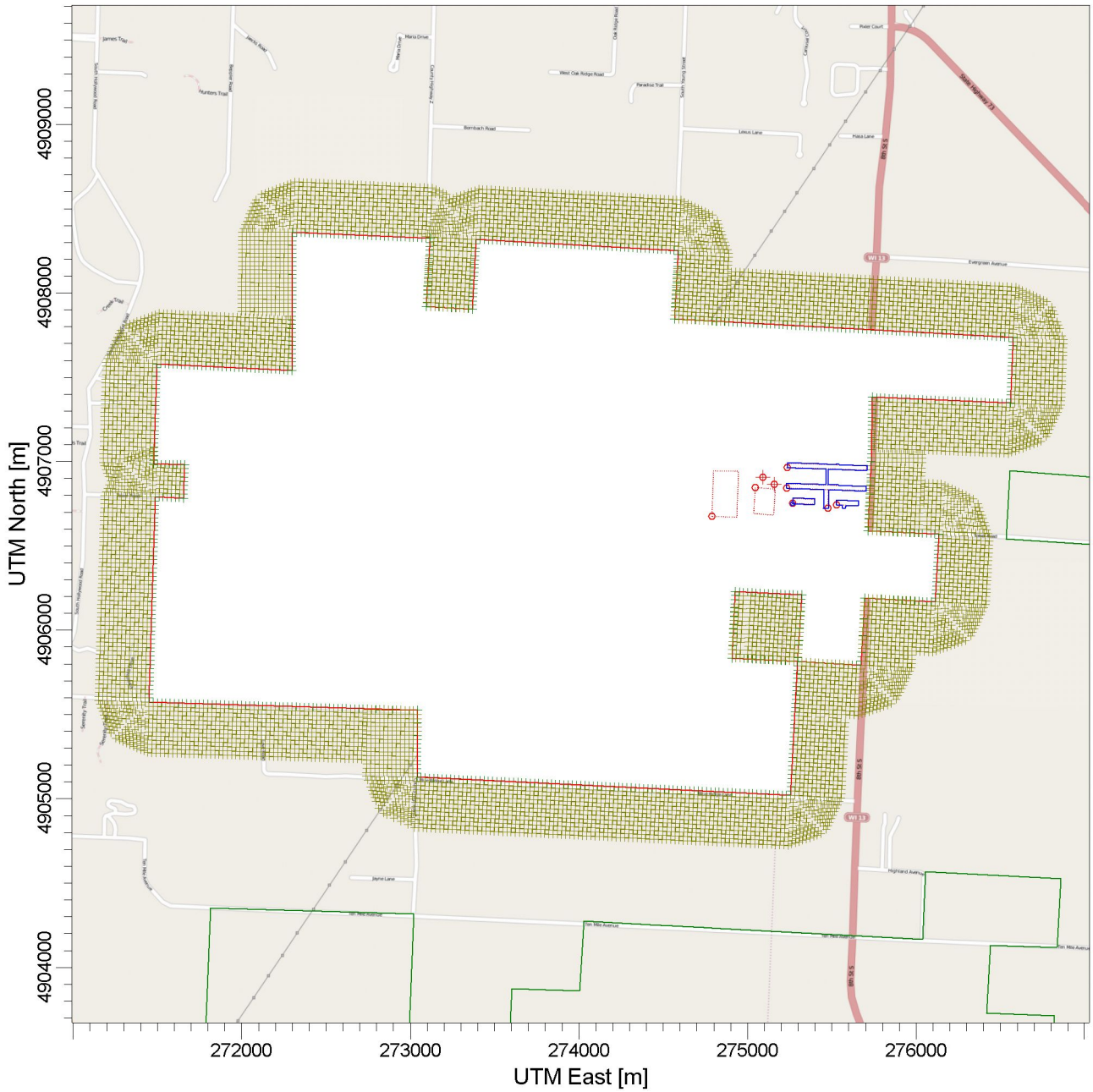
PROJECT TITLE:

FIGURE 2-36
SOURCE LOCATION PLAN

COMMENTS:	SOURCES:	COMPANY NAME:	
	9	**GOLDEN SANDS DAIRY, WISCONSIN**	
	RECEPTORS:	MODELER:	
	9686	**CRA**	
		SCALE: 1:6,353	CONESTOGA-ROVERS & ASSOCIATES
		0 — 0.2 km	
		DATE:	PROJECT NO.:
		07/01/2014	**078690**

PROJECT TITLE:

FIGURE 2-37
PROPERTY BOUNDARY AND RECEPTOR GRID



COMMENTS:	SOURCES:	COMPANY NAME:	
	9	**GOLDEN SANDS DAIRY, WISCONSIN**	
	RECEPTORS:	MODELER:	
	9686	**CRA**	
		SCALE: 1:37,963 0 1 km	CONESTOGA-ROVERS & ASSOCIATES
		DATE:	PROJECT NO.:
		07/01/2014	**078690**

AERMOD View - Lakes Environmental Software

C:\78690_GoldenSandsDairy\2014_01_January\figures.isc

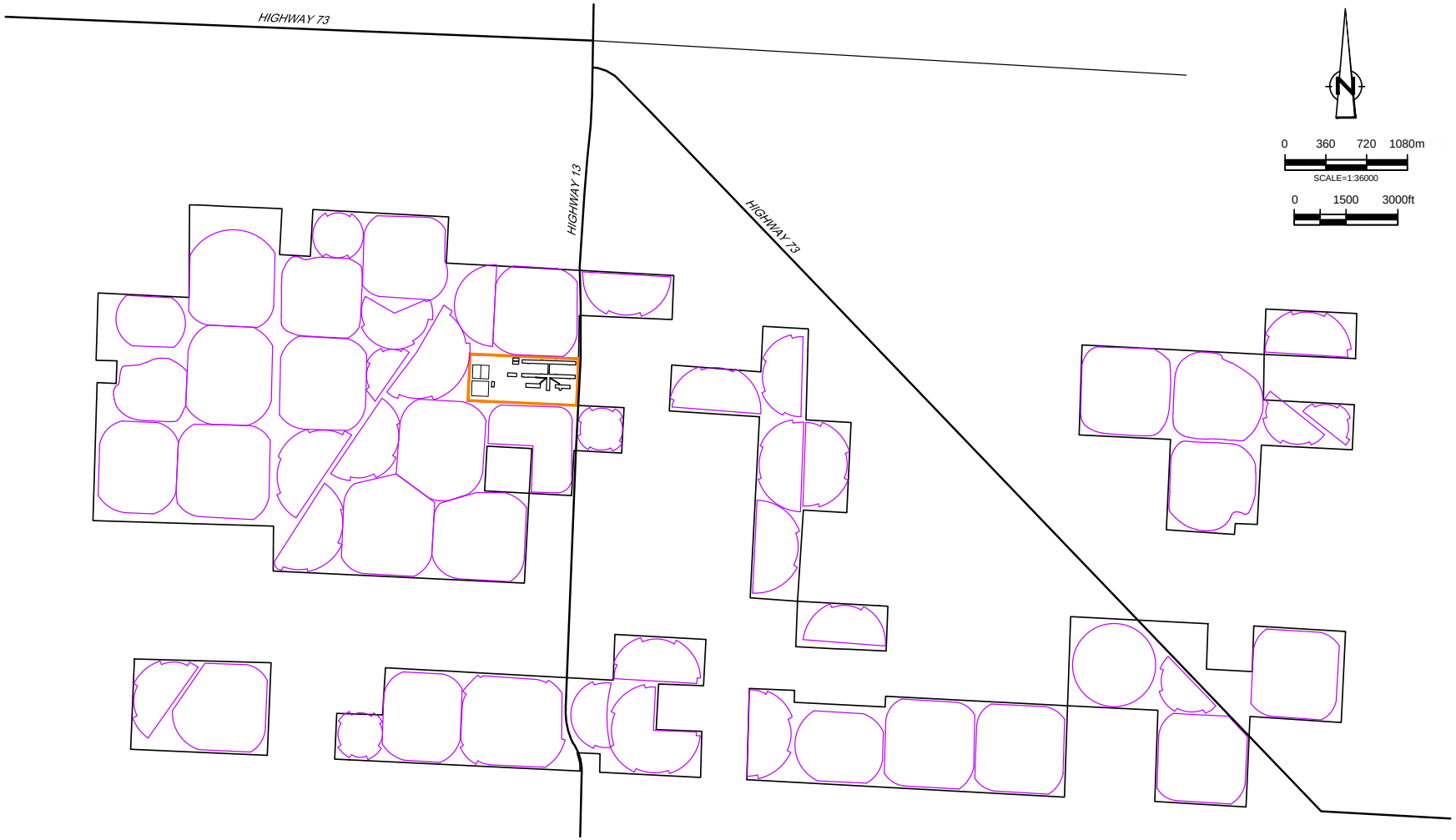


figure 2-38

LAND APPLICATION PARCELS
GOLDEN SANDS DAIRY
Wisconsin

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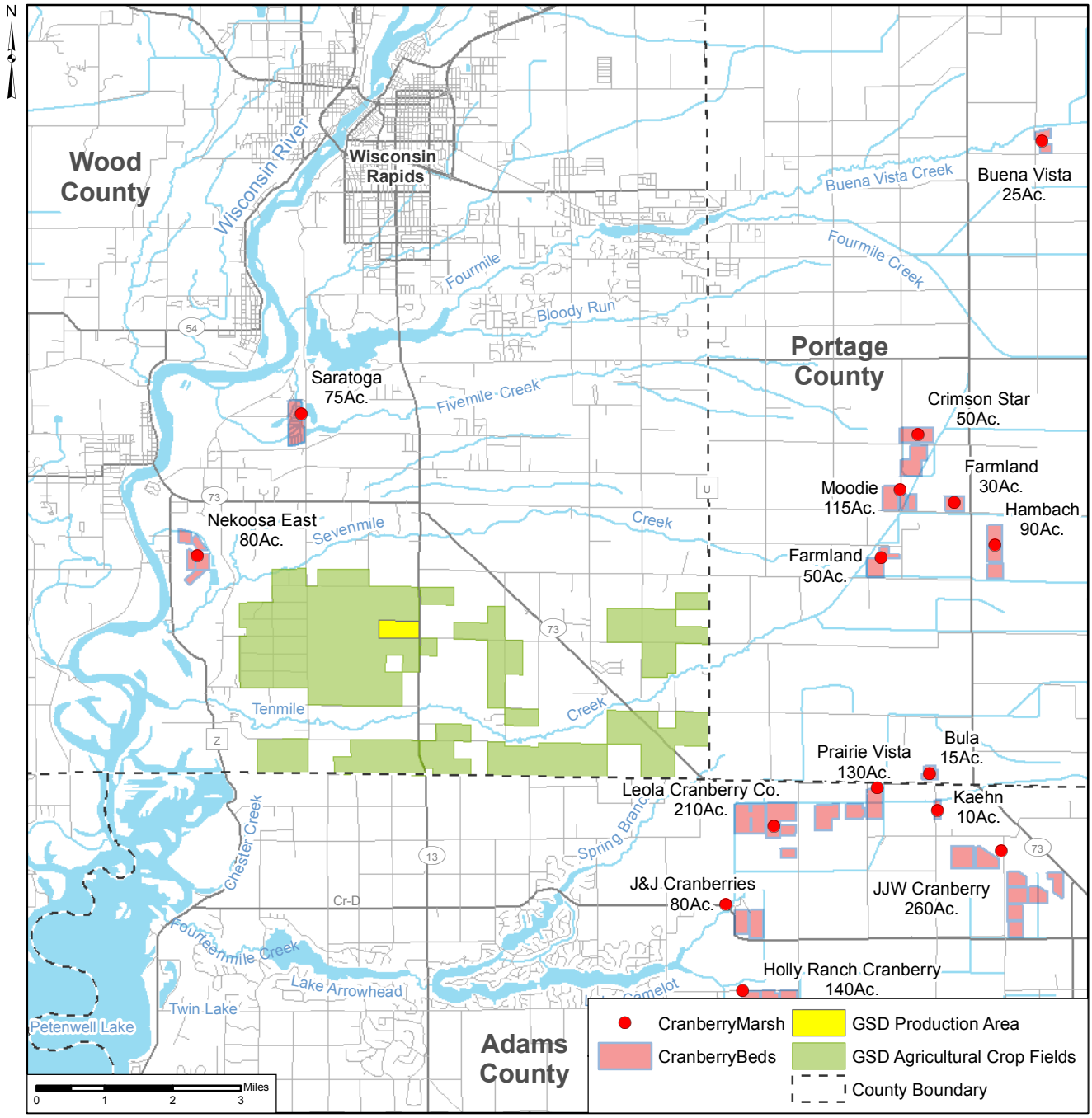
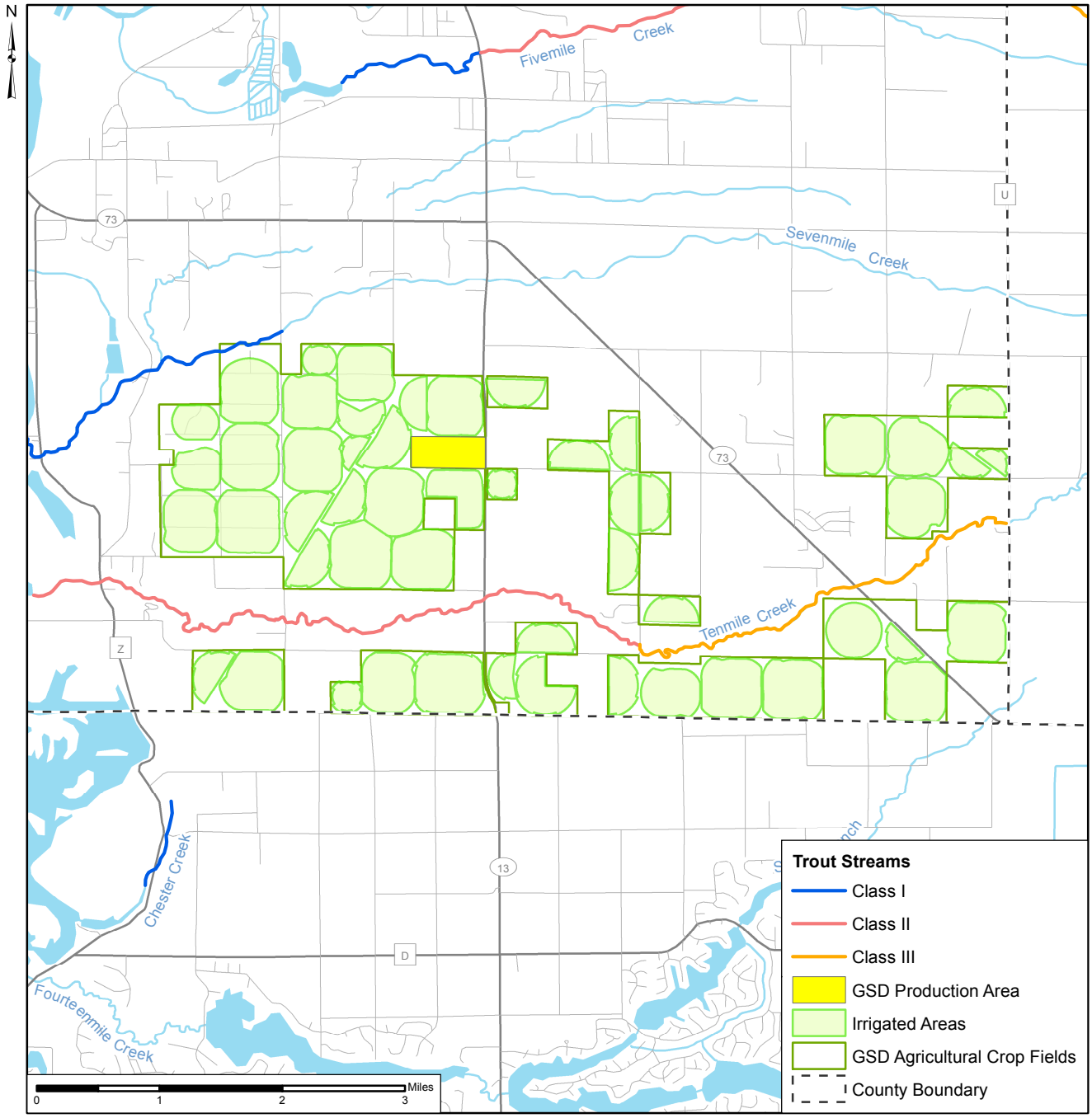
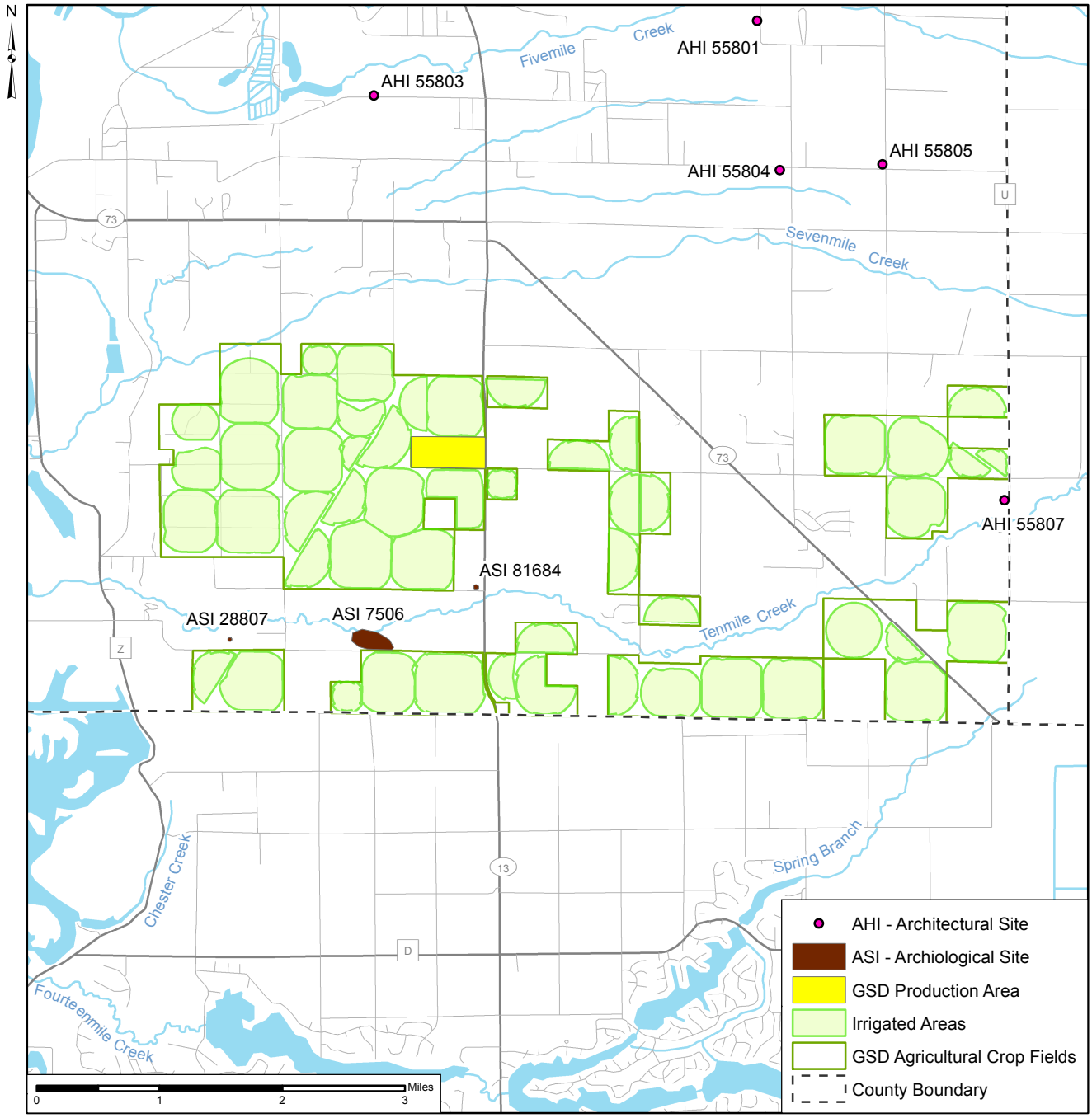


Figure 3-1 Cranberry Operations near the GSD



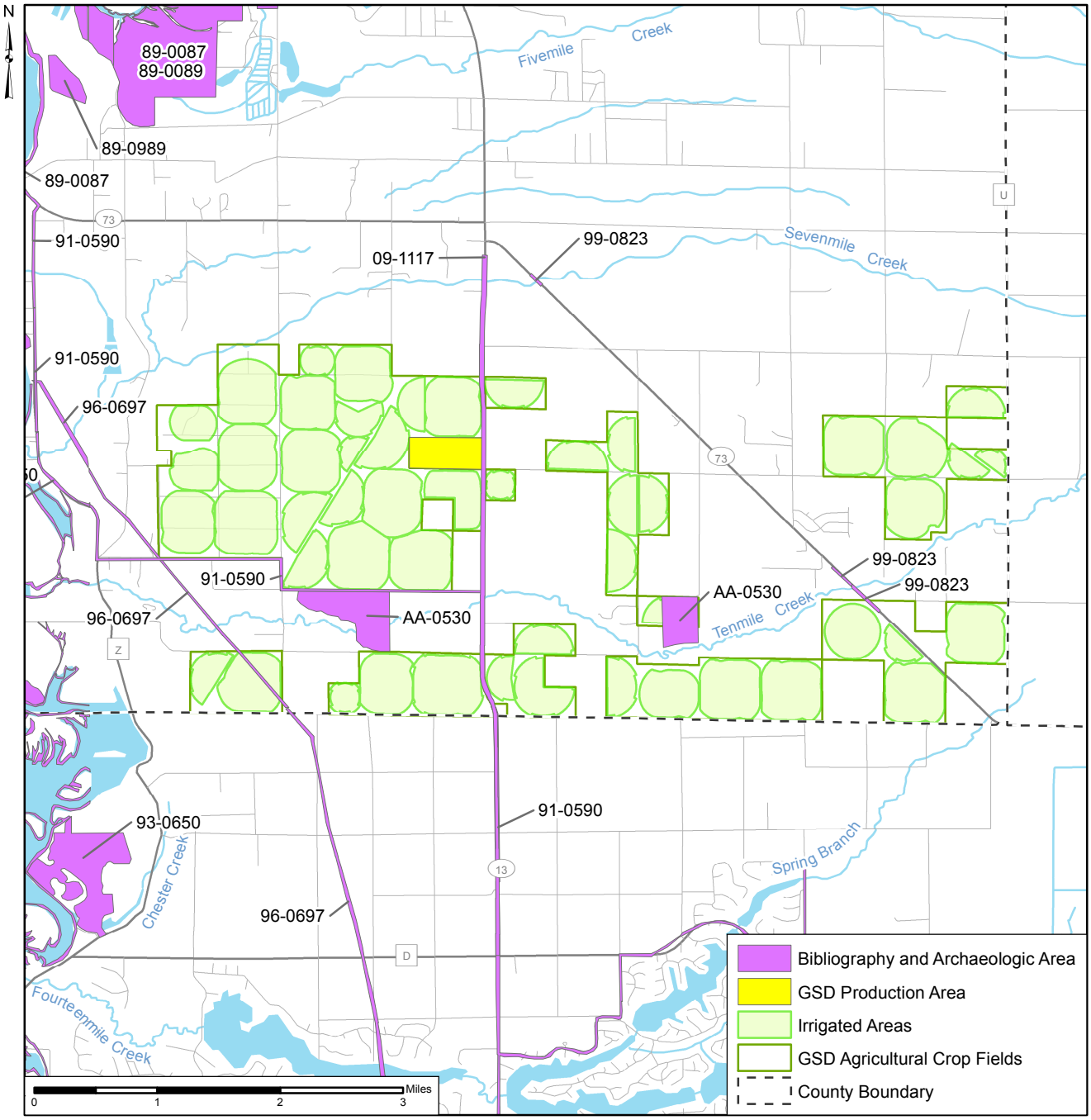
Note: Delineation of the Irrigated Areas are approximate

Figure 3-2 Trout Stream Designations



Note: Delineation of the Irrigated Areas are approximate

Figure 3-3 Archeological and Architectural Sites Inventory near the GSD



Note: Delineation of the Irrigated Areas are approximate

Figure 3-4 Archeological and Architectural Sites Inventory near the GSD