

**PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (PRRIP -or- Program)**

TO: PRRIP Technical Advisory Committee (TAC)
FROM: PRRIP Executive Director's Office (EDO)
SUBJECT: Monitoring Wells Review and Recommendations
DATE: January 14, 2025

The Program maintains an extensive network of monitoring wells at various project sites spread across the length of the Associated Habitat Reach. Sites include wetlands, wet meadows, recharge projects, transects that extend across the river, and others.

These wells require staff time and resources to monitor and maintain, and funds are routinely required to replace failed or obsolete equipment. Some of the instrumented monitoring wells have had equipment fail or reach the end of usable life that was not replaced. Other wells remain actively registered but were broken off, filled in, or otherwise damaged over time.

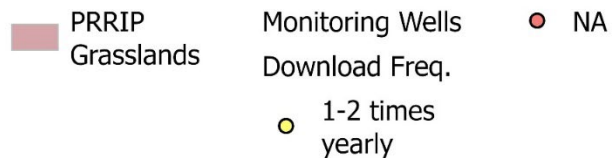
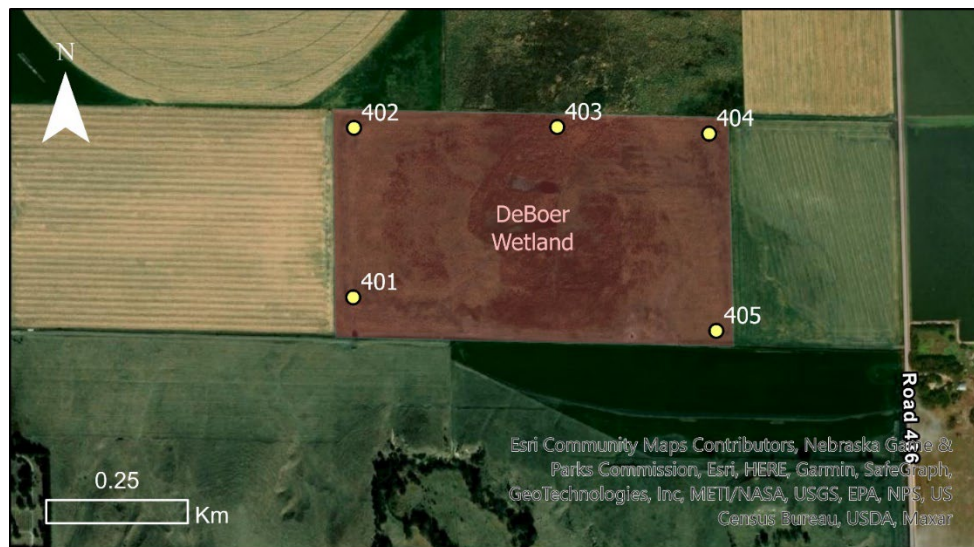
The purpose of this memo is to provide an overview of the Program's active monitoring well sites and provide recommendations whether to continue to maintain and actively collect data or abandon the various wells. Simple PVC pipe monitoring wells that are to be abandoned should be formally decommissioned and de-registered with the State of Nebraska if applicable. For monitoring wells with more substantial construction (e.g., steel posts and concrete pad), instruments could be removed and the wells locked but not removed entirely.

Project Site	Monitoring Wells	EDO Recommendations
DeBoer	• 401-405	• Remove instruments and decommission all wells.
Phelps/Cook	• Cook 1 and Cook 2 • MW-1 to MW-6	• Keep and maintain MW-1 and MW-2. • Remove instruments and decommission Cook wells and MW-3 to MW-6.
Morse/Cottonwood Ranch	• 301-304 • 8 unnamed NPPD transect wells • Unnamed well, corner of Cell 8	• Keep and maintain 301-304 (at least 301 and 302 have instruments). • Decommission all other monitoring wells (no known instruments).
Leihs	• 501-506	• Keep and maintain 505. • Remove instruments and decommission 501-504 and 506.
Lakeside/Stall/Edlund	• 5 unnamed wells	• Decommission 4 wells around Lakeside pit (no known instruments). • Decommission well in NW corner (no known instruments).
John	• 2 unnamed wells	• Decommission both (no known instruments).



Project Site	Monitoring Wells	EDO Recommendations
Fox	<ul style="list-style-type: none">• 101-116	<ul style="list-style-type: none">• Remove instruments and decommission 101-111.• Keep and maintain 112-116 at corners and center of Fox property.
Minden	<ul style="list-style-type: none">• 4 transect wells, 2 north of river (DDD, ADD) and 2 south of river (BBC, CBB)	<ul style="list-style-type: none">• DDD and ADD known to be damaged.• Remove all other instruments and decommission.
Binfield	<ul style="list-style-type: none">• 201-216 and 510	<ul style="list-style-type: none">• Remove instruments and decommission all wells.
North Platte Chokepoint	<ul style="list-style-type: none">• GW-1• SW-1 and SW-2• SC-1 and SC-2	<ul style="list-style-type: none">• Confirm status of SW-1.• Discuss future need for surface water data.• Download and check conditions of data loggers.

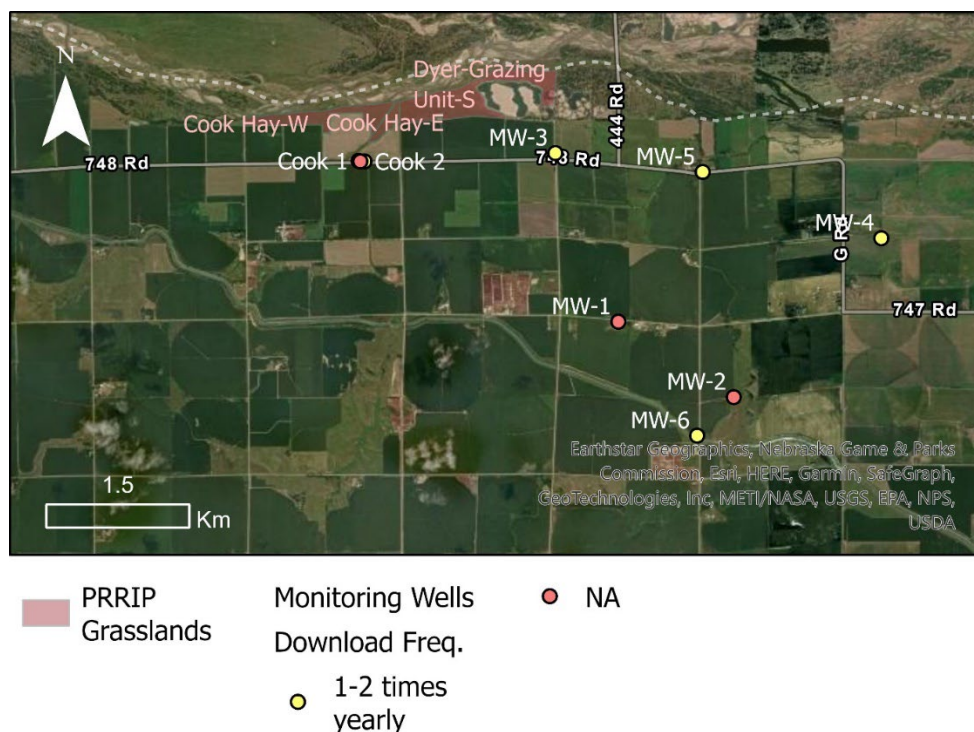
DeBoer



- Wells 401-405 are used for collection of data on palustrine wetland conditions.
- Collected data not currently used for analytical purposes.
- EDO takes photo documentation of wetland conditions.
- **EDO Recommendation: Remove instruments and decommission all wells.**

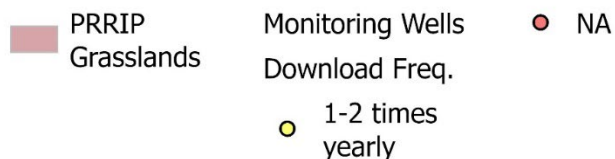
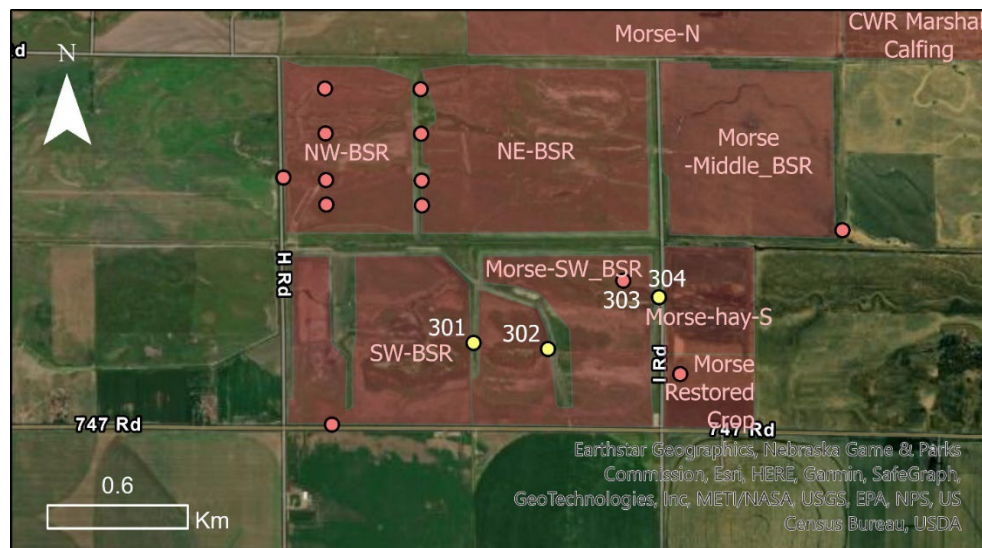


Phelps/Cook



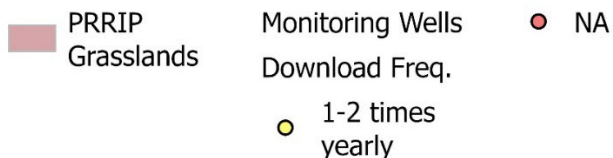
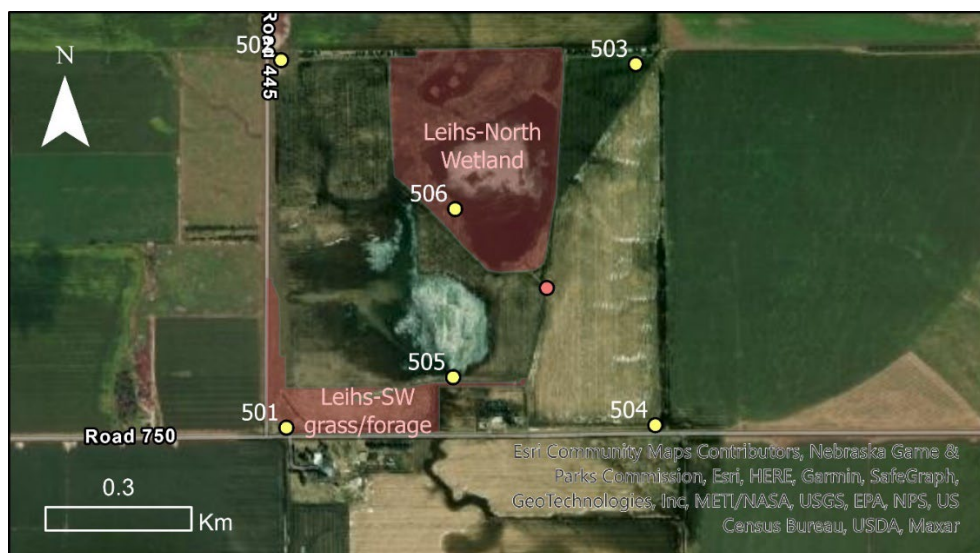
- Wells MW-1 through MW-6 were established in 2011 for the groundwater recharge feasibility study.
 - Water level thresholds were established for MW-1 and MW-2; those wells are on telemetry and are actively monitored during Phelps County Canal recharge events.
 - Wells MW-3 through MW-6 are not known to have any current monitoring or analytical purpose. Data from those wells was reported in annual Phelps recharge reports through the 2016-2017 non-irrigation season but those reports were stopped once the EDO started doing accounting analyses for all Program water projects after 2018.
- Wells Cook 1 and Cook 2 were installed to monitor groundwater drawdown from the Cook recapture well that is located between them and operated by Tri-Basin NRD on behalf of the Program. Collected data is no longer actively utilized.
- EDO Recommendations: Keep and maintain MW-1 and MW-2. If no clear value to support groundwater modeling, remove instruments and decommission MW-3, MW-4, MW-5, MW-6, Cook 1, and Cook 2.**

Morse/Cottonwood Ranch



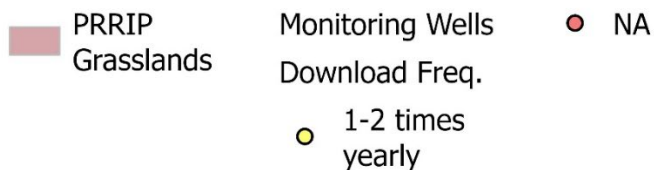
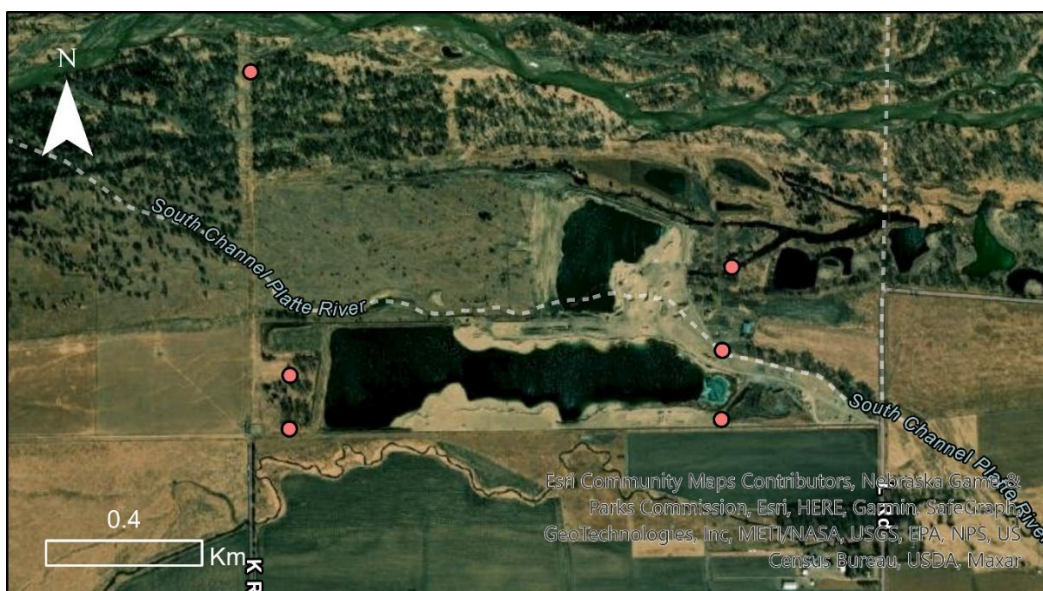
- The wells shown along H Rd and 747 Rd are operational livestock wells.
- The well shown east of I Rd and just north of 747 Rd is an operational irrigation well.
- Wells 301-304 were established by the Program for monitoring wetland water levels prior to construction of the Cottonwood Ranch recharge project.
- The well shown in the SE corner of what is recharge Cell 8 is a registered but unusable monitoring well (Well ID 127404). The well was installed by the Crane Trust in 2000 and ownership was transferred to the Program in 2010.
- The two transects of 4 monitoring wells in the NW corner of the project site (recharge Cell 3) were installed by NPPD in the late 1990s and have not been actively monitored or maintained in many years.
- **EDO Recommendations: Decommission well near SE corner of Cell 8 and the 8 NPPD monitoring wells in the NW ¼. Leave production wells and the 4 monitoring wells south of Peterson Drain as is.**

Leihs



- Cornfield wetlands test project.
- Wells 501-506 outfitted with data loggers.
- Unnamed well is an irrigation well used to fill the wetlands.
- **EDO Recommendations: Remove instruments and decommission 501-504 at the corners and 506 in the middle of the wetlands. Keep and maintain 505 to monitor groundwater levels near the house.**

Lakeside/Stall/Edlund



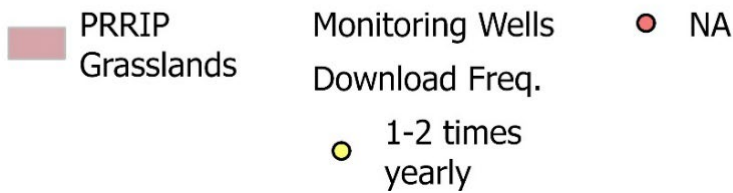
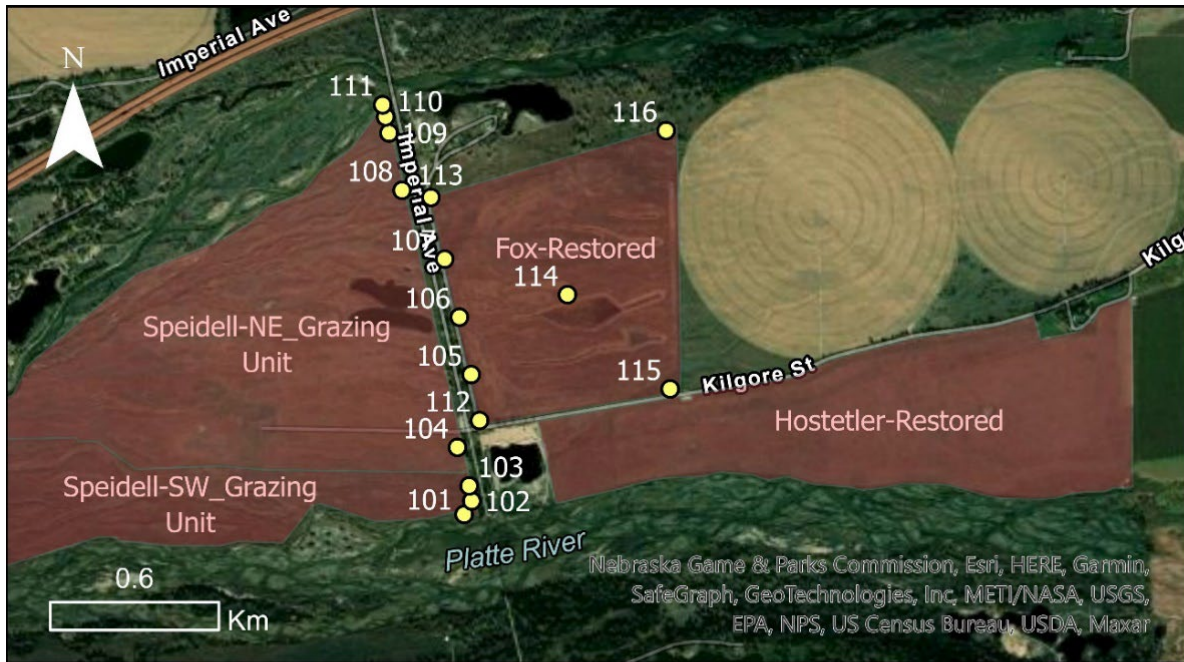
- 4 unnamed wells around gravel pit installed during slurry wall design. No known instrumentation.
- Unnamed NW well has unknown history and purpose. No known instrumentation.
- NE well is an irrigation well, ownership transferred to sand and gravel mining operation in 2017 land swap.
- **EDO Recommendations: Decommission all 5 monitoring wells (no known instruments).**

John



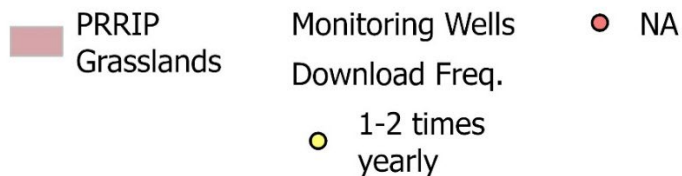
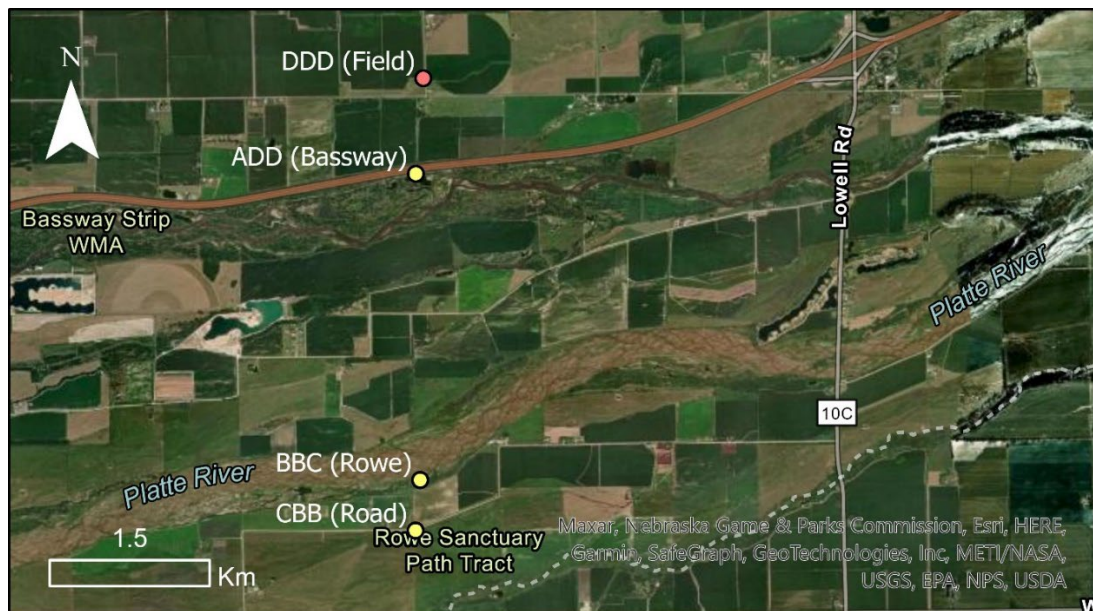
- Wet meadows project site
- Only the 2 monitoring wells on the John-North wet meadow are on Program property.
- No known instrumentation or analytical purposes.
- **EDO Recommendations: Decommission both monitoring wells.**

Fox



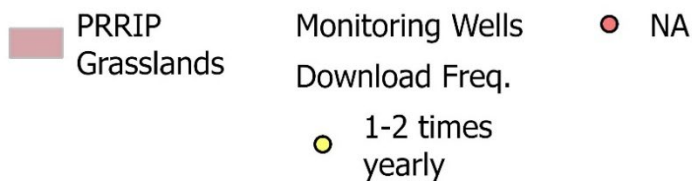
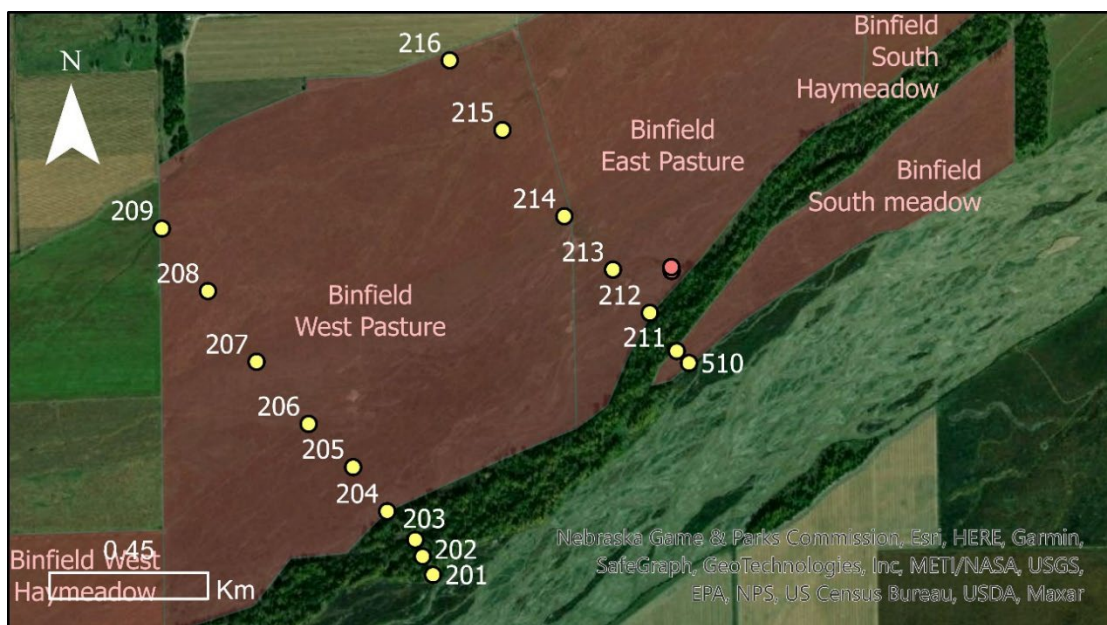
- Wet meadows project site.
- Wells 101-116 are owned by the Program and all instrumented with data loggers.
- **EDO Recommendations: If no plans for further wet meadows analysis, download and remove all existing loggers and decommission wells.**

Minden



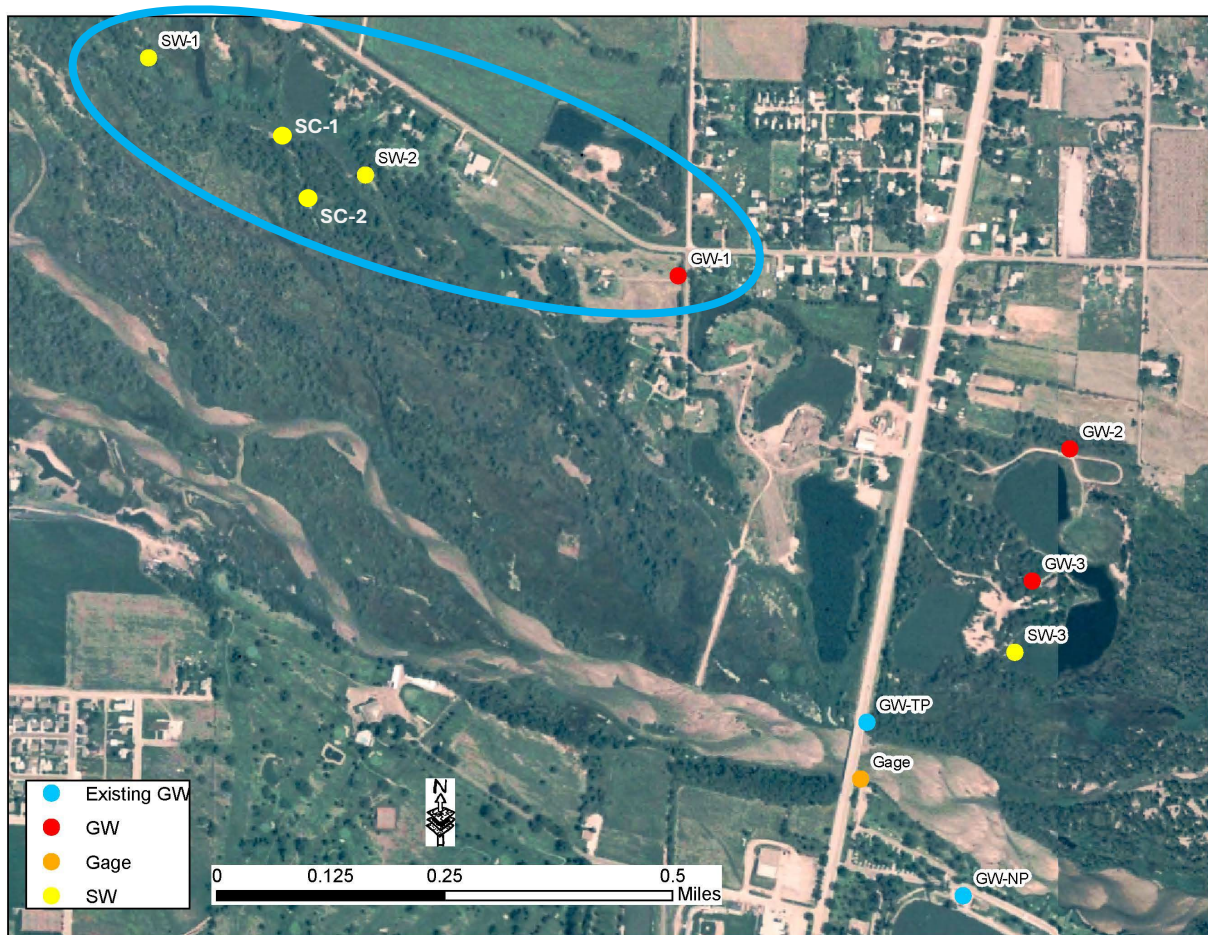
- Minden transect wells
- North wells (DDD and ADD) known to be damaged and non-functional.
- South wells (BBC and CBB) have no ongoing analytical purpose.
- **EDO Recommendations: Remove remaining instruments and decommission all wells.**

Binfield



- Wet meadows project site.
- Wells 201-216 and 510 are owned by the Program and all instrumented with data loggers.
- Two co-located and unnamed wells not owned by the Program.
- **EDO Recommendations: If no plans for further wet meadows analysis, download and remove all existing loggers and decommission wells.**

North Platte Chokepoint



- North Platte Chokepoint
- 1 groundwater monitoring well (GW-1) and 4 surface water monitoring wells (SW-1, SW-2, SC-1, and SC-2)
- SC-1 and SC-2 were instrumented for the July 2020 chokepoint flow test. GW-1 and SW-2 have longer records. Potentially not downloaded since July 2020.
- Status of SW-1 unknown.
- **EDO Recommendations: Confirm status of SW-1. Download other 4 data loggers and assess condition. Surface water loggers may no longer be needed. Ask if Twin Platte NRD is interested in continuing to monitor GW-1.**