



PU-08-932/PU-19-144

**Merricourt Wind Power Project
Reclamation Inspection Report**

File No. 227701305

July 2022

Prepared for:

North Dakota Public Service Commission
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1.0 EXECUTIVE SUMMARY

The North Dakota Public Service Commission (PSC) retained Stantec (formerly Wenck) to complete site inspections for the construction of the Merricourt Wind Power Project and energy conversion facility (the Project), constructed by EDF Renewable Development Corporation, Inc. (EDF) and Otter Tail Power Company (Otter Tail). The Project construction was comprised of 13,156 acres in Dickey and McIntosh counties, ND. Construction was conducted through Wanzek Construction (Wanzek). There was a total of 75 primary and 6 alternate turbine locations proposed with a production capacity of 150 MW, which interconnect into the Merricourt 231kV switch station owned by Montana Dakota Utilities. The purpose of the inspection was to ensure the Project was constructed in compliance with the siting laws and rules and the applicable PSC Orders for the Project.

A pre-construction conference call was held for the Project June 24, 2019. Stantec was not contracted by the PSC for inspection until August 6, 2019, thus was unable to attend the call. Stantec reviewed Project documents and plans to become familiar with applicable PSC Orders. Construction involving topsoil disturbance commenced August 8, 2019. The Project was stated to be 100% operational on September 28, 2021 with reclamation activities being initiated in May and being completed in mid-summer, 2021. Stantec conducted the as-built inspection on October 14, 2021. On-site reclamation inspections occurred on June 30, 2022. During the inspection, the issues recorded during the 2021 inspection remained unresolved, and Stantec was able to talk with the Otter Tail site supervisor, who stated Wanzek has not yet been able to revisit the areas of concern. This report includes documentation from the site inspection and the status of reclamation and revegetation efforts to date.

The predominant land uses of the Project are cropland and livestock pasture. There were minimal noxious weeds observed. As anticipated, overall vegetation establishment has improved from observations in 2021 as the region recovered from extremely dry climatic conditions, but the concerns outlined in the 2021 As-Built inspection (PU-19-144 Docket #94) remain unaddressed. The current trend suggests restoration to near as practicable to pre-existing conditions will be achieved, assuming the issues noted during the 2021 as-built report and verified during the 2022 inspection are properly addressed. Other inspected project components (turbine pads, surrounding access roads, and ditches) were commonly appropriately reclaimed throughout different land uses and restored to as practicable as possible.



2.0 BACKGROUND AND SCOPE

2.1 INTRODUCTION

The Project, located in Dickey and McIntosh Counties, ND, is under the jurisdiction of the North Dakota Public Service Commission (PSC), which issued its first Findings of Fact, Conclusions of Law, and Order in Case No. PU-08-932 on June 8, 2011, granting a Certificate of Energy Facility Site Compatibility No. 23 for the Project to EDF. A second, and final, amended Findings of Fact, Conclusions of Law, and Order was filed by the PSC on November 16, 2017, under PU-08-932. In 2016, EDF and Otter Tail executed an Asset Purchase Agreement, and the certificate was transferred to Otter Tail on May 3, 2019, under PU-19-144. Construction of the Project comprised of the 75 turbines, access roads, and 230kV substation, and was conducted by Constructed by Wanzek. The total Project area is 13,156 acres, and encompasses United States Fish and Wildlife Service wetland easements, wetlands, and occupied and unoccupied residences. The Project is in both:

- Dickey County
 - German Township, Sections 29-31
- McIntosh County:
 - Antelope Township, Range 67, Sections 21, 23, 25-30, 32-36
 - Beresina Township, Range 67, Sections 1-6, 8-15, 23
 - Iowa Township, Range 68, Sections 1

2.2 PURPOSE

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of the citizens of North Dakota. Post-construction inspections ensure that such projects are constructed in compliance with the siting laws (North Dakota Century Code Chapter 49-22) and rules (North Dakota Administrative Code Article 69-06) and the applicable PSC Findings of Facts, Conclusions of Law, and Order (Order). The PSC retained Stantec (formerly Wenck Associates, Inc.) to conduct post-construction reclamation and revegetation monitoring of the Project.

2.3 METHODS AND SCOPE OF INSPECTION

2.3.1 Project Scope Identification

Stantec's scope of work was to perform and document a reclamation and revegetation inspection after one full growing season no less than one year from the anniversary date of completion of fertilization and seeding. Seeding was conducted by Wanzek subcontractor Landstar, and is understood to have been completed during the month of July (PU-19-144 Docket #90). The reclamation and revegetation inspection includes a follow-up of areas of concern identified in the as-built construction inspection. This



**PU-08-932/PU-19-144 OTTER TAIL POWER COMPANY
MERRICOURT WIND POWER PROJECT RECLAMATION INSPECTION**

Background and Scope

July 2022

report includes, but is not limited to, documentation of site visit observations, and a summary of findings and issues that should be addressed for the Project to be considered complete and in compliance.

Stantec's intent was to ensure the Projects obligations of compliance with reclamation and restoration specifications found in the Findings of Fact, Conclusions of Law and Order, Certifications Relating to Order Provisions. These "Project Specifications" are listed in Table 1. Project Specifications originated mainly from the Certification Relating to Order Provisions.

Table 1 Project Specification Scope Table

Order Provision 21	<i>Company agrees that it shall, as soon as practicable upon the completion of the construction of the energy conversion facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.</i>
Order Provision 22	<i>Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the energy conversion facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.</i>
Order Provision 23	<i>Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.</i>
Order Provision 24	<i>Company will fulfil its obligation for reclamation and maintenance of the approved site continuing throughout the life of the energy conversion facility.</i>
Order Provision 25	<i>Company will repair all fences and gates removed or damaged during all phases of construction and operation of the proposed energy conversion facility.</i>
Order Provision 26	<i>Company will repair or replace all drainage tile broken or damaged as a result of construction and operation of the proposed energy conversion facility.</i>
Order Provision 27	<i>Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.</i>
Order Provision 29	<i>Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.</i>

2.3.2 On-Site Inspection.

Zachary Bartsch, Stantec Soil Scientist, inspected the Merricourt Wind Power Project on June 30, 2022. The site was inspected by systematically driving through access roads and visually inspecting the areas of concern from the As-Built inspection, as well as other project components. Geographic coordinates were recorded at observation points and potential problem areas using ESRI ArcGIS Collector and Survey123 software applications on a tablet utilizing internal satellite triangulation software or paired with a Trimble Global Positioning System (GPS) (**Appendix A**). Digital photographs were taken with the tablet utilizing the Survey123 application to geotag photo locations and associate all collected data from each Observation Point (Figures 1-8). Photographs were taken showing representative portions of the route, aboveground Project infrastructure, and problem areas (**Appendix B**).



3.0 RESULTS OF SITE INSPECTION

The following subsections outline findings from the inspection pertaining to the land uses of the Project.

3.1 CROPLAND

The Project components cross numerous acres of cropland via access roads, turbine pads, meteorological evaluation towers (MET), and transmission lines. Cropland was observed to be under soybean and corn production or were recently sprayed and not planted. No visual yield estimate or stand height comparisons were made, however, the stand density and physical characteristics were consistent to the surrounding, undisturbed cropland (**Appendix B; Observation Points 2, 4, 5, 7, 17, 27, 30, 35, 37, 38, 47, 50, 51, 52, 53, 55, 56**). Soybeans that were seeded directly adjacent to reclaimed areas were observed to be stressed compared to undisturbed cropland (**Appendix B; Observation Points 3, 8, 14, 40, 41**), and may warrant additional Best Management Practices (BMP's) or action. Most visible impacts were at **Observation Point 40**, where the T-46 access road was constructed along a cut slope which was observed to be severely eroding into crops. Lastly, the fields observed to be void of any cultivated species in the undisturbed and reclaimed areas appear to be sprayed out by producers and were unrelated to the reclamation (**Observation Points 17, 39**).

Red-root pigweed (*Amaranthus retroflexus*) and Lambsquarter (*Chenopodium album*) was observed in some farmed areas, but were also observed near or in undisturbed cropped areas. No noxious weeds were observed in the restored croplands.

3.2 HAY AND PASTURELAND

The Project area encompasses numerous parcels of land under active rotational grazing and land used for cutting and baling hay. These areas were predominantly covered by perennial and annual vegetation and are assumed to not typically be subjected to cultivation. Stantec was unable to locate a revegetation plan or seed list on the docket and could not verify seeded species in the hay and pasture areas. Revegetation quality of hay and pastureland was appropriate, where there was a predominance of volunteer and seeded grasses (**Appendix B; Observation Points 1, 10, 19, 26, 29, 46, 48, 54**). Other areas were observed to contain a predominance of weedy species (**Appendix B; Observation Points 8, 11, 13, 14, 16**). In addition to seeded grass too small for identification, observed perennial grasses include, but are not limited to, crested wheatgrass (*Agropyron cristatum*), quackgrass (*Elymus repens*), foxtail barley (*Hordeum jubatum*), and smooth brome (*Bromus inermis*). Late-successional species such as western snowberry (*Symphoricarpos occidentalis*) were observed in the undisturbed pastureland and not the restored areas, but is expected due to relatively recently restoration and revegetation activities. Any deviations from NRCS seeding recommendations, typically at landowner requests, is unknown.

Absinthe wormwood (*Artemisia absinthium*) and Canada thistle (*Cirsium arvense*) are ND noxious weeds, and were observed in the reclaimed hay and pastureland areas (**Observation Points 10 and 11**).



Stantec recommends mechanical, chemical, or biological control measures be taken place to control these populations.

3.3 ACCESS ROADS AND PADS

Permanent project components that were not within cropland or hay/pastureland were inspected. This includes turbine pads, road ditches, access roads, or utility boxes. Less than 50% of the observation points in these areas contained similar stand density as surrounding areas (**Observation Points 42, 46, 56**). Plant cover was not indicative of similar vegetative communities between disturbed and undisturbed areas. For example, **Observation Points 24 and 49** were dominated weedy species that were not seeded and not similar to undisturbed areas despite having appropriate overall ground cover.

Over 50% of the observation points are areas that need improvement and reclamation efforts to reduce erosion and gravel wash out. For example, the lack of vegetation has resulted in severe gullies across access roads which are impacting adjacent undisturbed land with sediments (**Observation Points 16, 18, 23; this does not include all areas of road gullies**). Other areas that need additional reclamation include areas of erosion/washout, culverts filled with sediment, and bare/unvegetated areas (**Observation Points 12, 18, 20, 22, 25, 28, 38, 43, 45**). Stantec recommends addressing reseeding and improved reclamation efforts in areas with runoff accumulation such as road drainages and ditches.

Observation points near access road ditch areas commonly contained quackgrass, smooth brome, Lambsquarter, sweet clover (*Melilotus sp.*), field bindweed (*Convolvulus arvensis*), and common milkweed (*Asclepias syriaca*). These species comprise a vegetative community that was also observed in nearby undisturbed areas.

Lastly, the ND noxious weed Canada thistle was observed at **Observation Point 49**.

3.4 NOXIOUS AND ANNUAL WEEDS

Absinthe wormwood (**Observation Points 10 and 15**) and Canada thistle (**Observation Points 11,15, 24, 49**) were the only noxious weed observed (**Appendix B**).



Table 2 Species¹ Observed in Reclaimed Project Area

Land Use	Vegetative Class					
	Grasses		Forbs		Weeds	
	Native	Non-Native	Native	Non-Native	Native	Non-Native
Cropland (non-crops)	NA	NA	NA	Lambsquarter	NA	Red root pigweed
Hay/Pastureland	Foxtail barley	Crested wheatgrass Smooth brome Quackgrass	Wild mustard Western snowberry (Shrub)	Alfalfa Sweet clover	Common ragweed	Absinthe wormwood Canada thistle
Access Roads and Road Ditches	Foxtail barley	Smooth brome Quackgrass	Common milkweed	Alfalfa Sweet clover	Common ragweed Field bindweed	Canada thistle

¹Noxious weeds in bold red.



3.5 STREAM/WETLAND CROSSINGS

One reclaimed area near a wetland was examined. The final topography matched surrounding areas and the seeded vegetation was established (**Appendix B; Observation Point 14**). There was also appropriate BMP's around the reclamation area to prevent adverse impacts to the wetland.

3.6 ROADS AND MAINTENANCE

Overall, the public roadways were maintained in good condition. No trash or equipment was observed. Stantec concludes compliance with Commission Order 22.

3.7 AS-BUILT INSPECTION CONCERNS

The results of the October 2021 as-built inspection showed numerous areas of non-stabilized areas of topsoil, eroding access roads and access road drains washing into surrounding landscapes (see, PU-19-144 Docket #94). Observation areas were revisited in 2022 but remained unchanged or more severe throughout the project area. Revisited areas were documented and recorded as **Observation Points 5, 15, 21, 31, 34, 36, 44**. Otter Tail site supervisor provided a tentative timeline of mid-to-late July as the earliest reclamation and reseeding would begin.

Proposed re-seeding activities shall be conducted to NRCS recommendations, however it is unknown if any deviations were made upon the request of landowners.



4.0 ISSUES RESULTIONS AND RECOMMENDATIONS

4.1 RECLAMATION RECOMMENDATIONS

It is understood Otter Tail is coordinating with its contractor to address the areas of concern presented in the 2021 as-built inspection. Stantec recommends Otter Tail address these known issues to comply with Order Provision 21. Stantec also recommends protecting topsoil stockpiles in the Project Area for future use. Stockpile protection can be accomplished by ensuring long-term, year-round perennial vegetative cover to prevent erosion and runoff of topsoil resources.

Desired grass species did not comprise a majority of absolute cover in most of the inspected Project components. Native species can be slow to colonize recently disturbed land since competition for available nutrients in the reclaimed soil with annual weed species is high. Another source for delay in native species establishment may be due to the 2021 drought in Dickey and McIntosh Counties, as seeds can lay dormant for significant amounts of time in dry conditions. Despite the lack of precipitation in the 2021 growing season, the spring of 2022 has provided improved moisture conditions. Future monitoring could be conducted to ascertain if absolute cover of desired species increases over time. Stantec recommends, if absolute cover does not increase during a climatically normal season in the next year or two, reseeding may be necessary.

4.2 WEED MANAGEMENT

Stantec recommends weed management where ND noxious weeds were observed, and for wherever they are identified. The prevalence of other weeds were moderate to low. Canada thistle and absinthe wormwood have seed viability of ≤ 20 and 3 years, respectively. Therefore, effective management is needed to significantly reduce weed presence in following years. For Canada thistle control, Stantec recommends areas with weedy species be treated immediately and in the growing season of 2023. Canada thistle is best controlled by repeated mowing to prevent plants from producing seeds, or by applying correct herbicides at the “rosette” vegetative stage, when the herbicide has the greatest chance at killing the plant (Lym, 2013). Absinthe wormwood can be controlled in a similar fashion of mowing, or chemical treatment in its growing stage (at least 12 in tall; Meehan et al., 2017).




5.0 SIGNATURES

The conclusions in this Report are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from the ND PSC and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

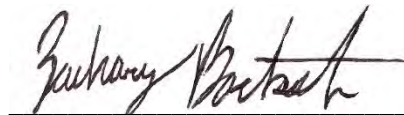
This Report is intended solely for use by the ND PSC in accordance with Stantec's contract with the ND PSC. While the Report may be provided to applicable authorities having jurisdiction and others for whom the ND PSC is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.



Matt Retka
Project Manager
Environmental Scientist

July 27, 2022

Date



Zachary Bartsch
Natural Resources Scientist

July 27, 2022

Date



6.0 REFERENCES

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FIGURES

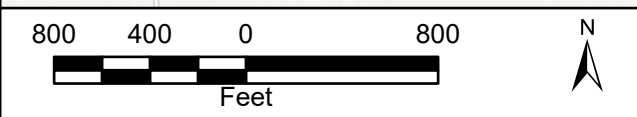
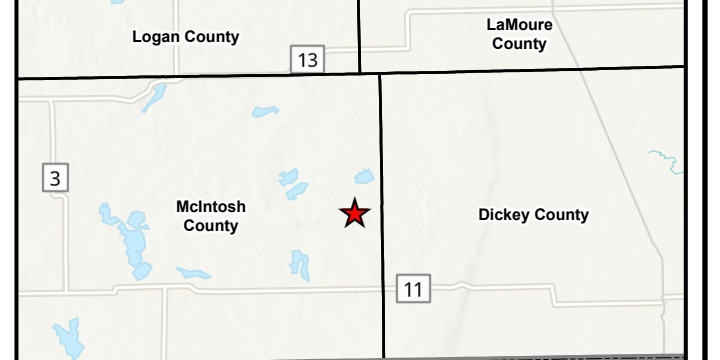
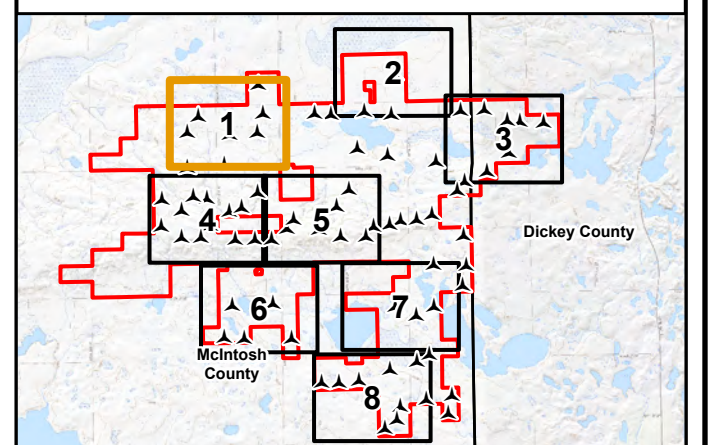
**Figure 1-8: Reclamation/Revegetation Observation
Locations Map**



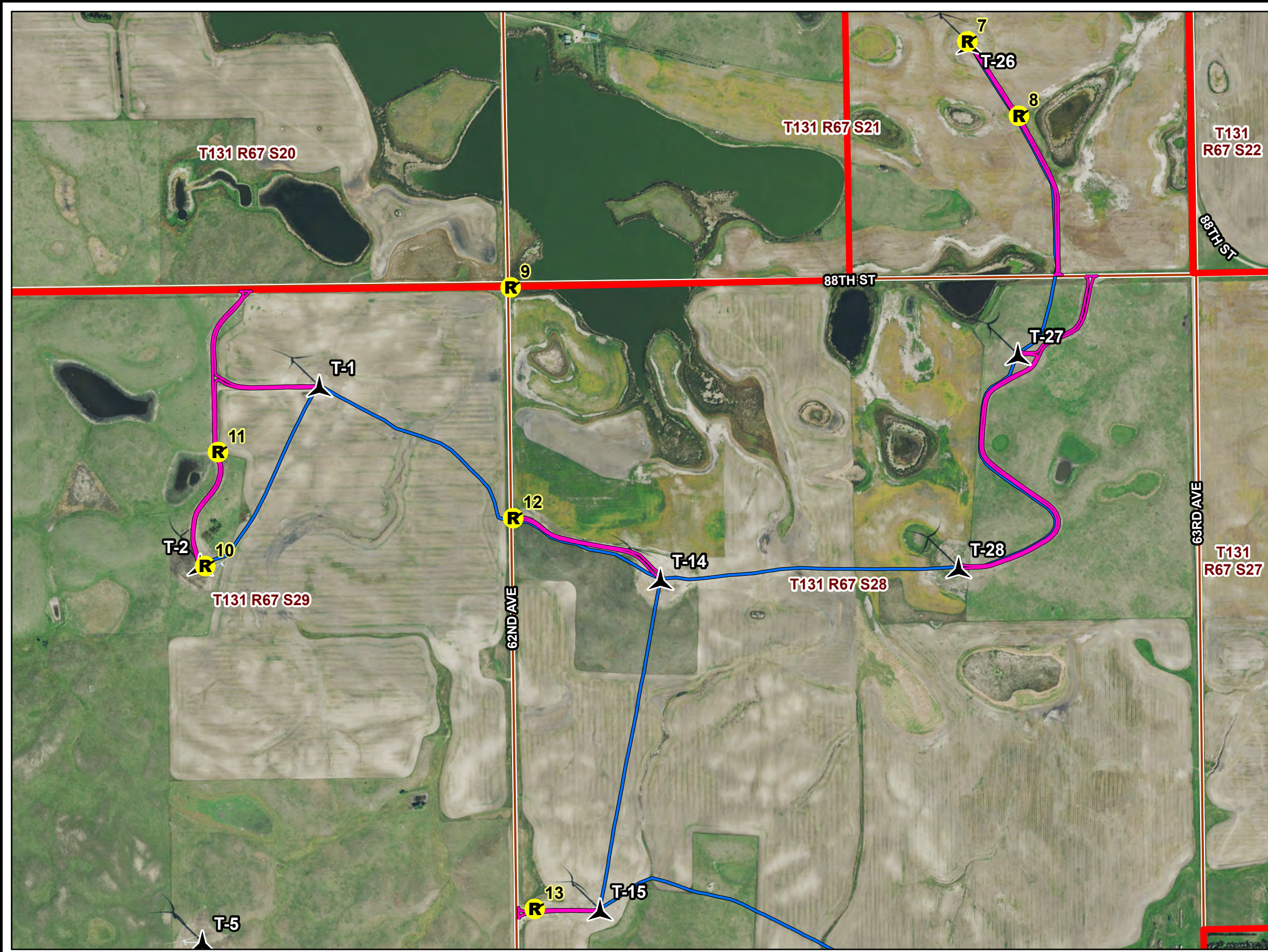
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**Merricourt Wind Farm
Figure 1**

- Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



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PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations



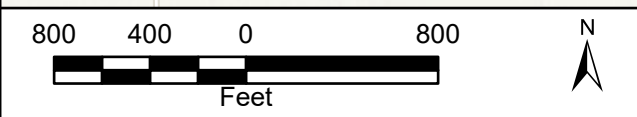
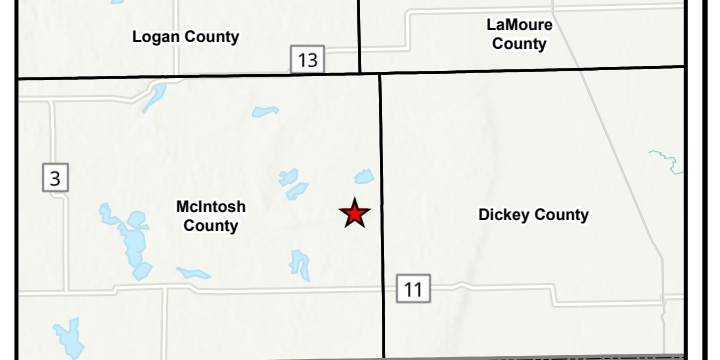
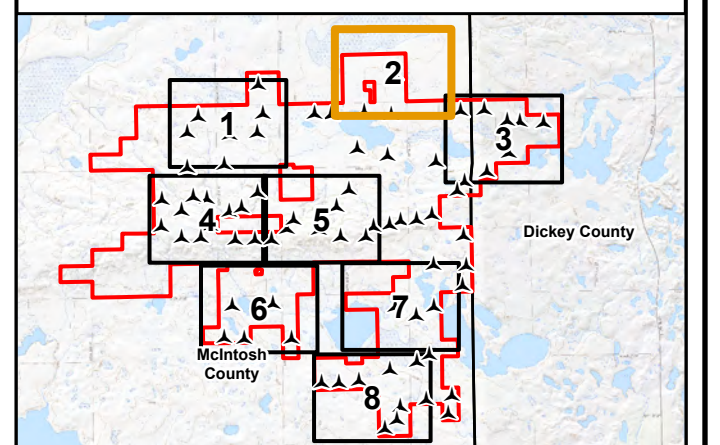
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Map 1 of 8

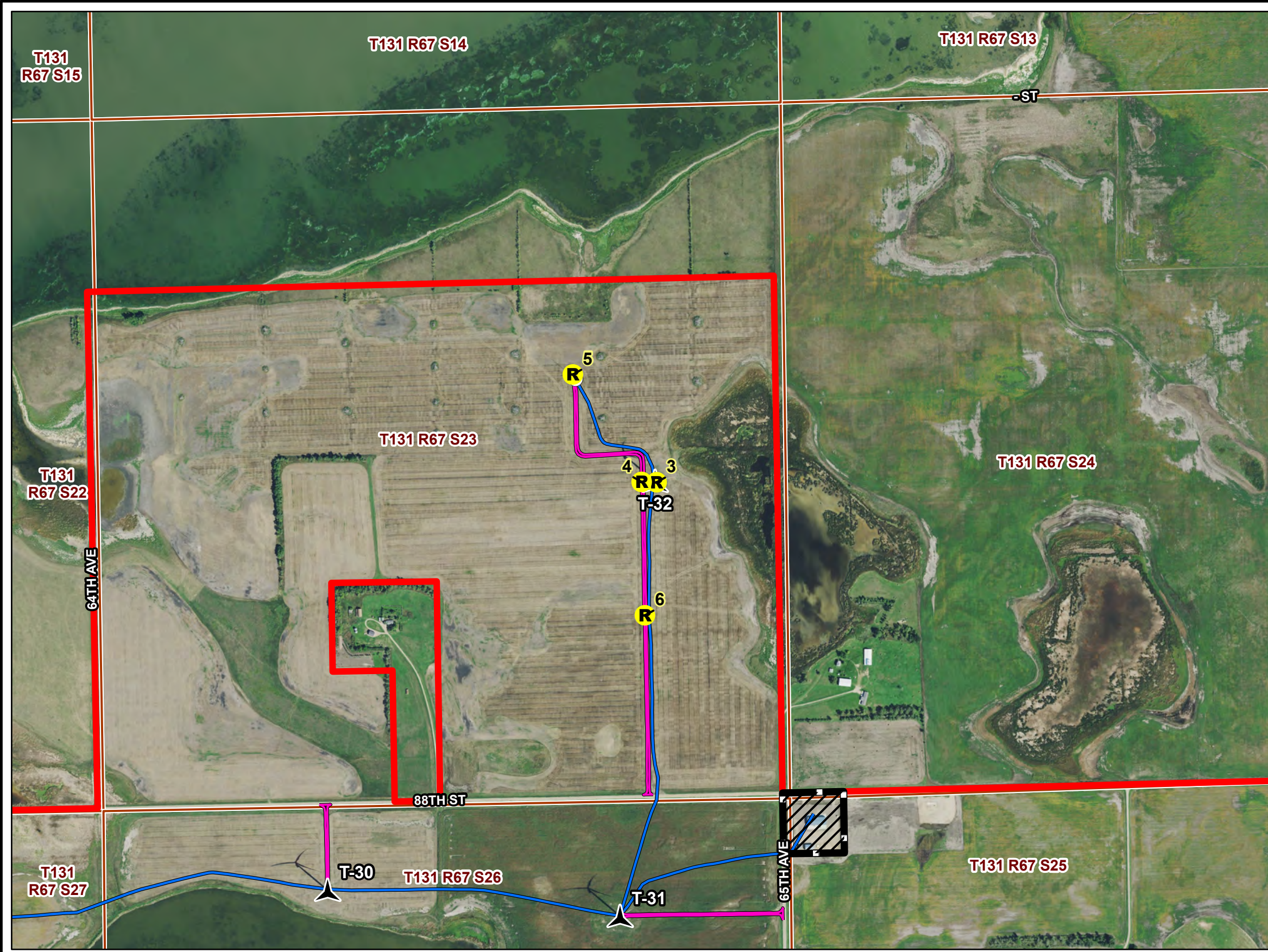
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**Merricourt Wind Farm
Figure 2**

- Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



2021 Aerial Photograph (Source: NAIP)
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PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations



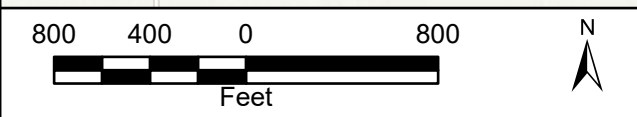
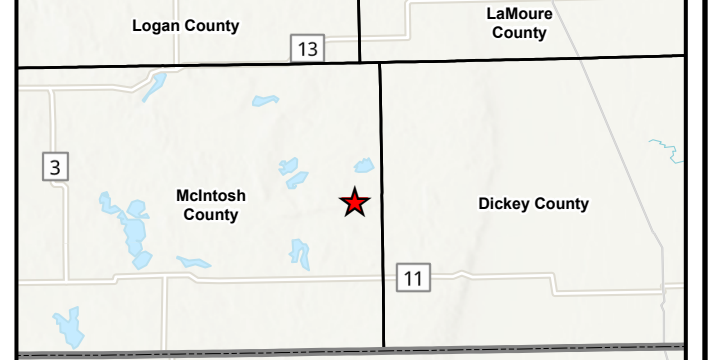
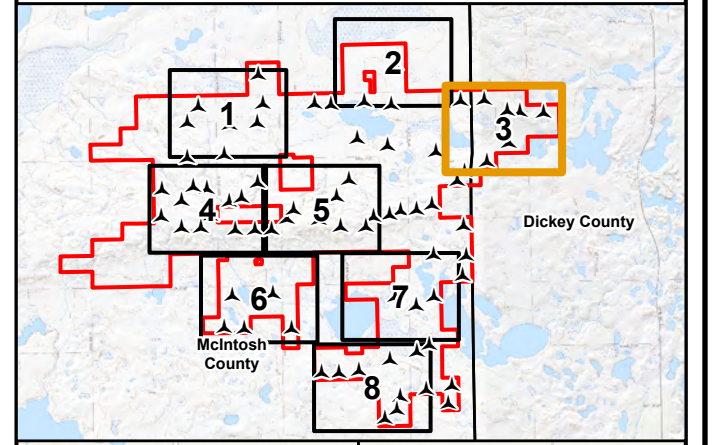
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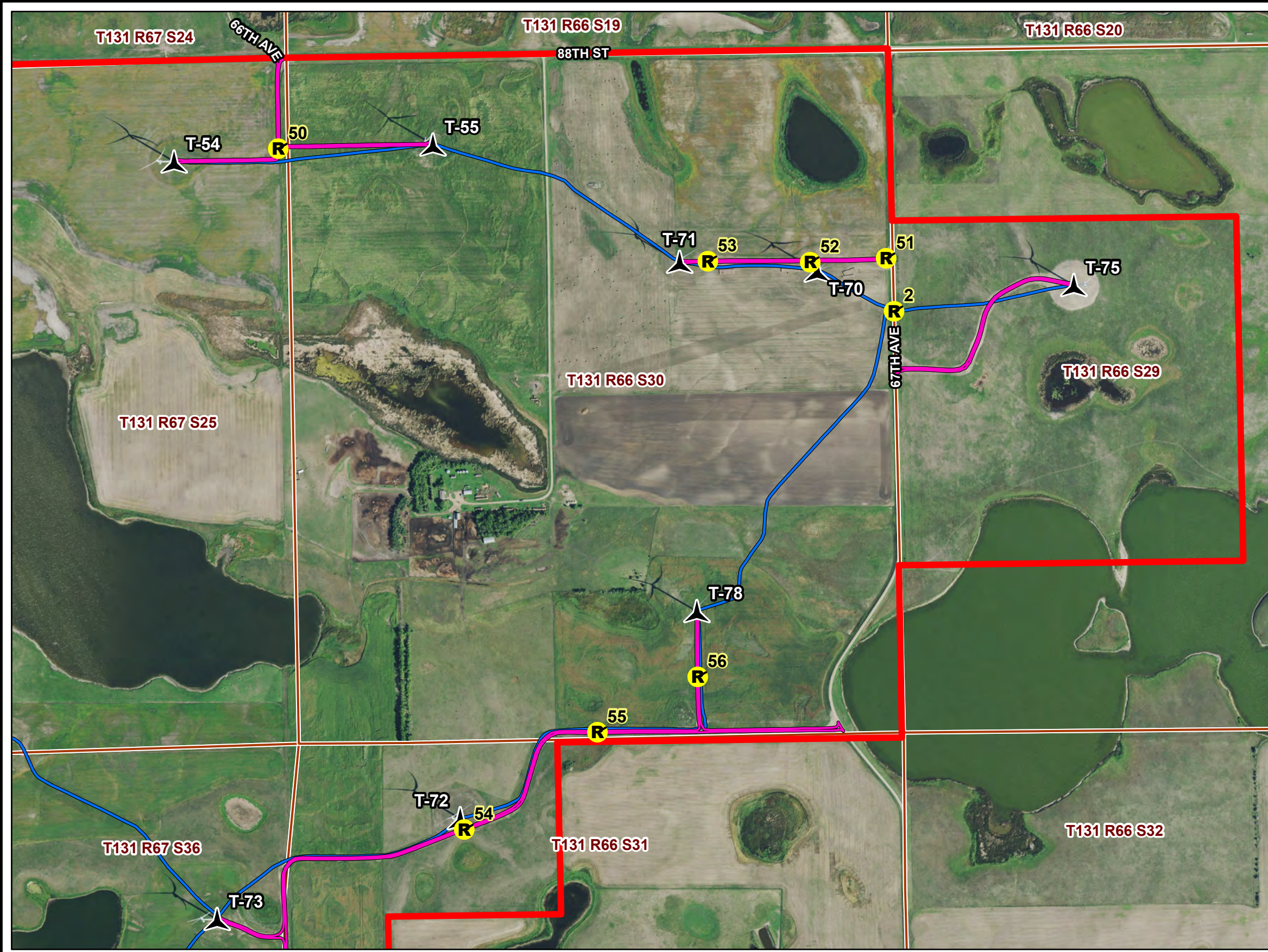
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Merricourt Wind Farm Figure 3

- Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



2021 Aerial Photograph (Source: NAIP)
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Reclamation Observation Locations



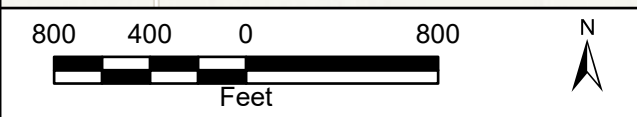
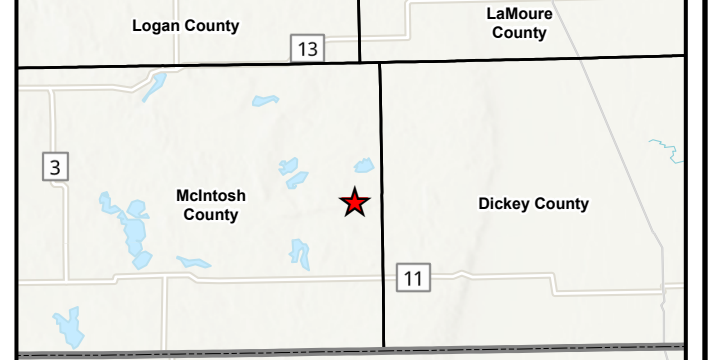
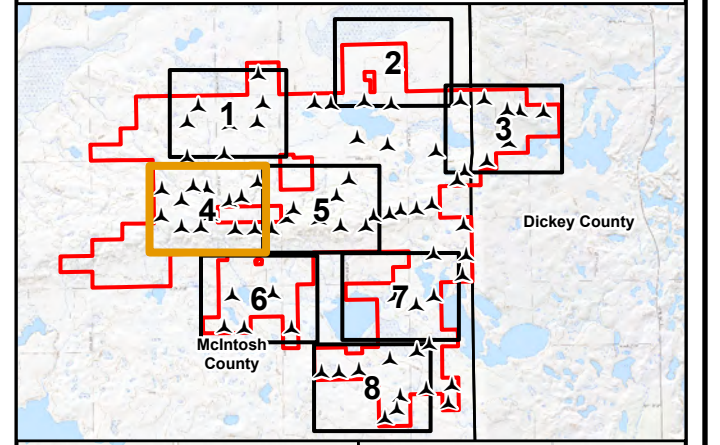
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Map 3 of 8

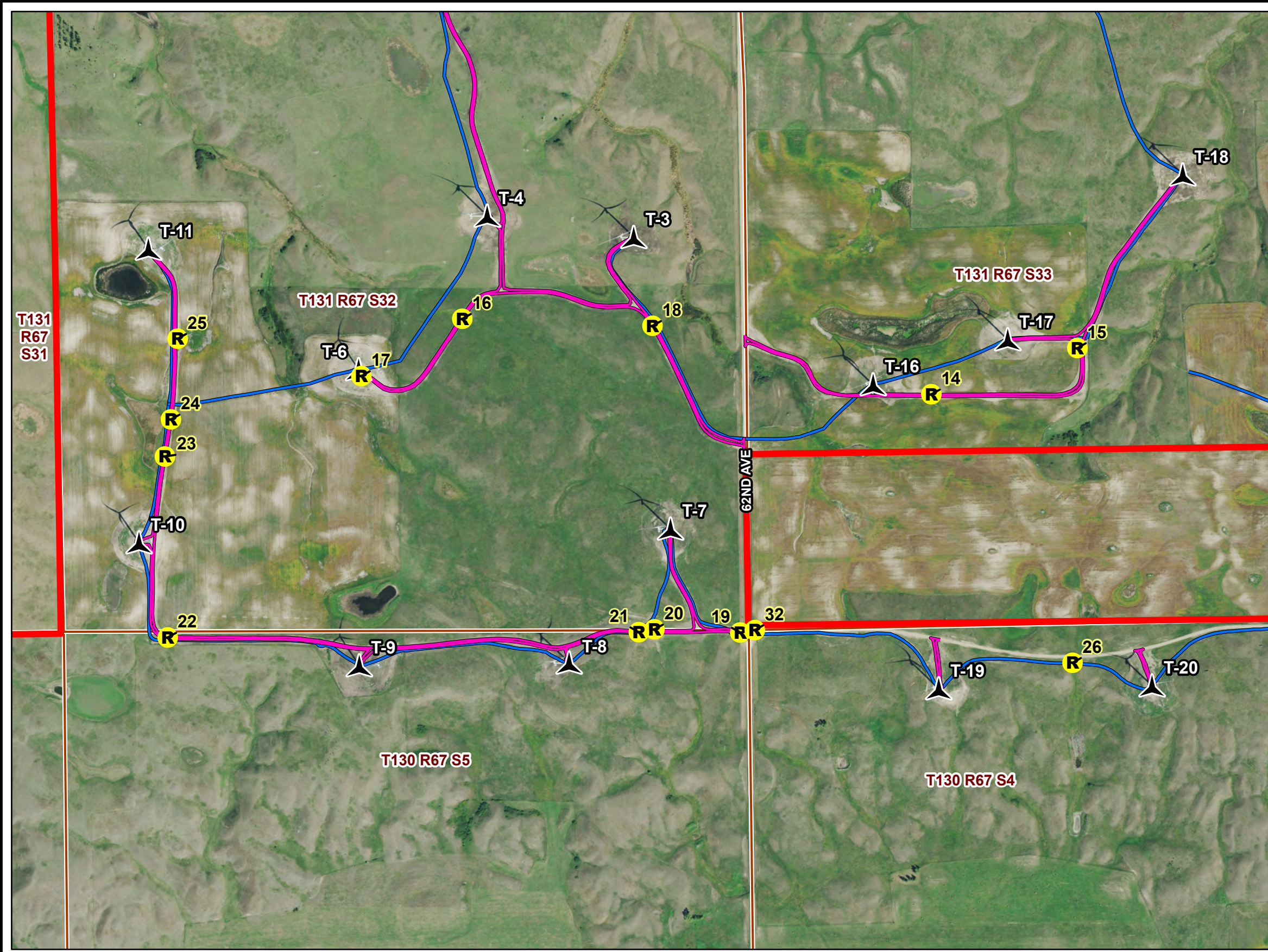
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**Merricourt Wind Farm
Figure 4**

- R Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



2021 Aerial Photograph (Source: NAIP)
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PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations



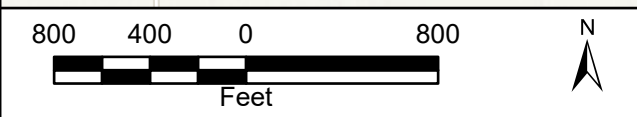
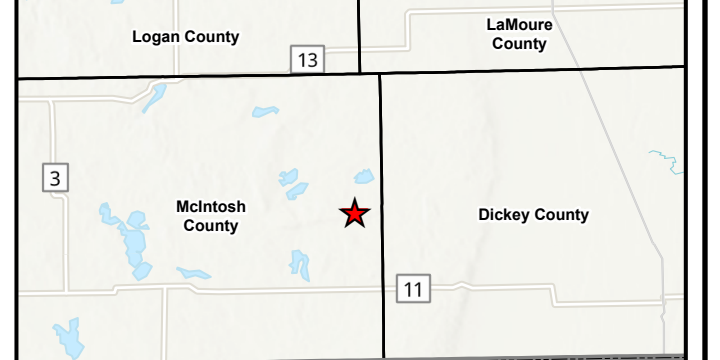
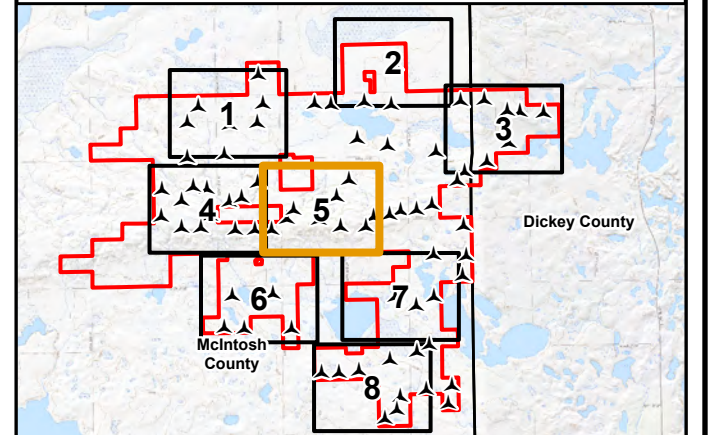
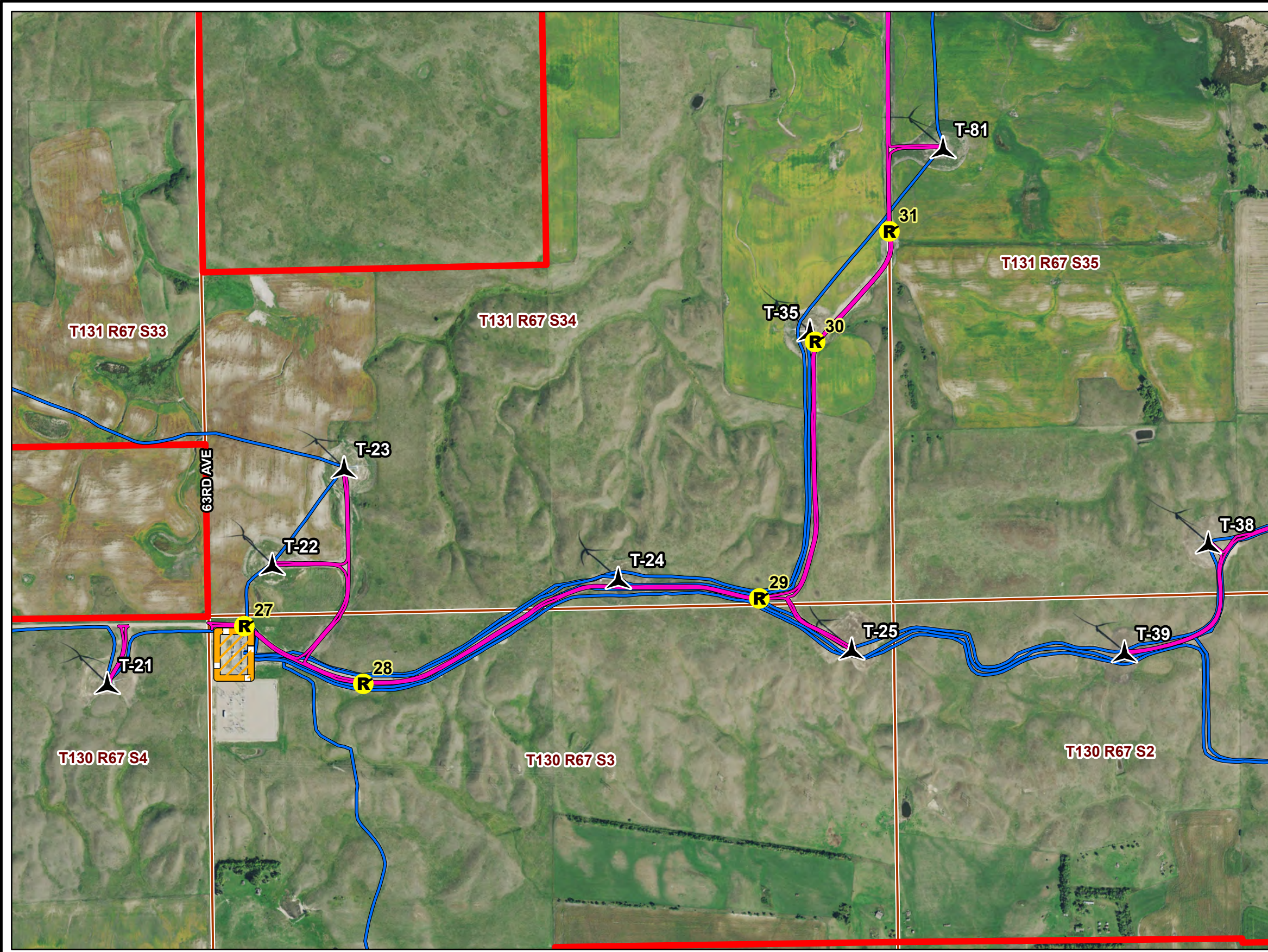
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**Merricourt Wind Farm
Figure 5**

- Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



2021 Aerial Photograph (Source: NAIP)
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PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations



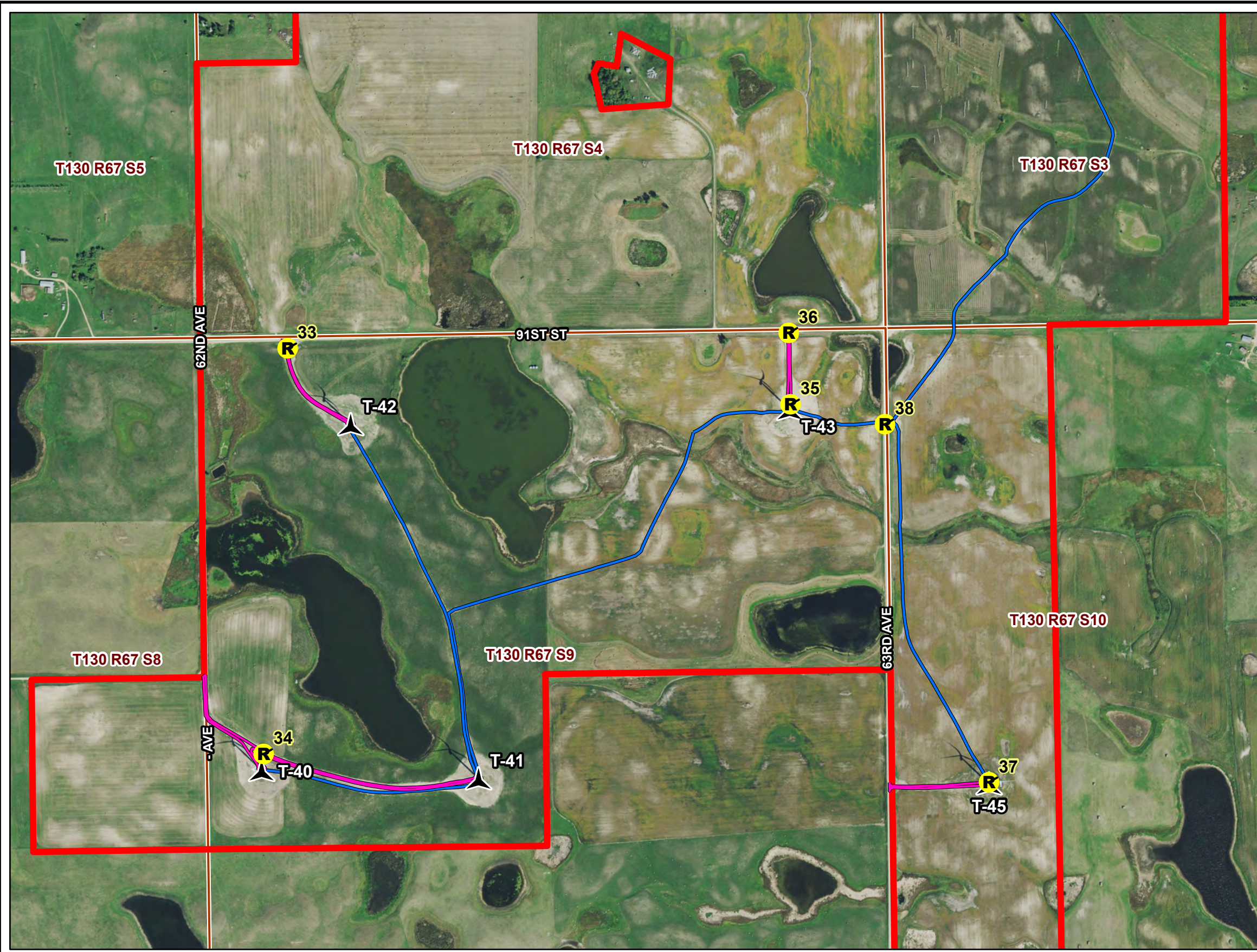
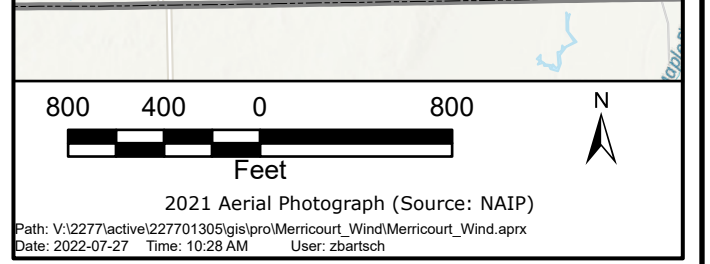
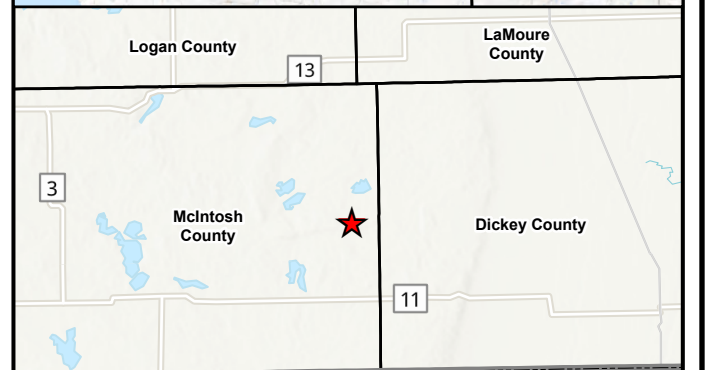
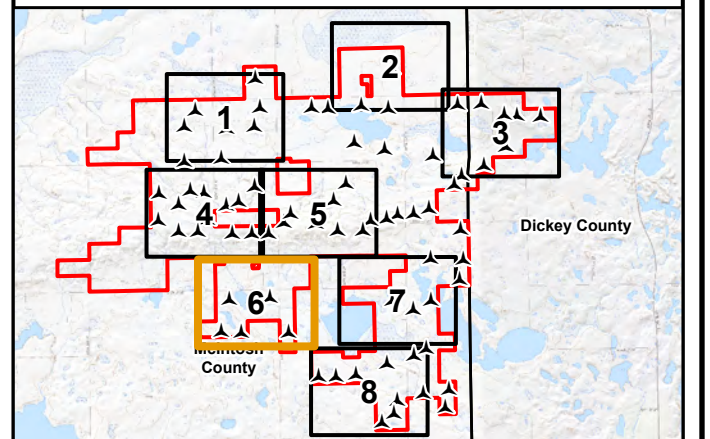
JUN 2022

Map 5 of 8

**North Dakota
Public Service Commission**

**Merricourt Wind Farm
Figure 6**

- R Reclamation Observation Point Location
- ▲ As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- Project Boundary



PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations











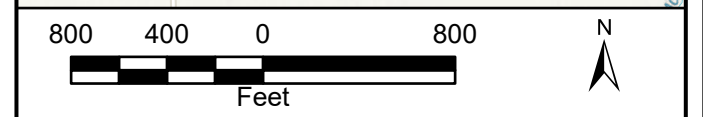
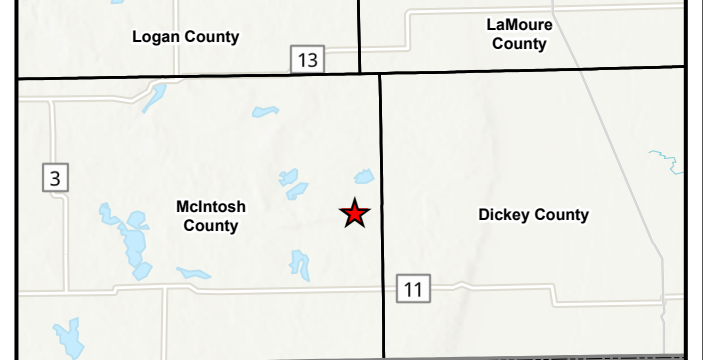
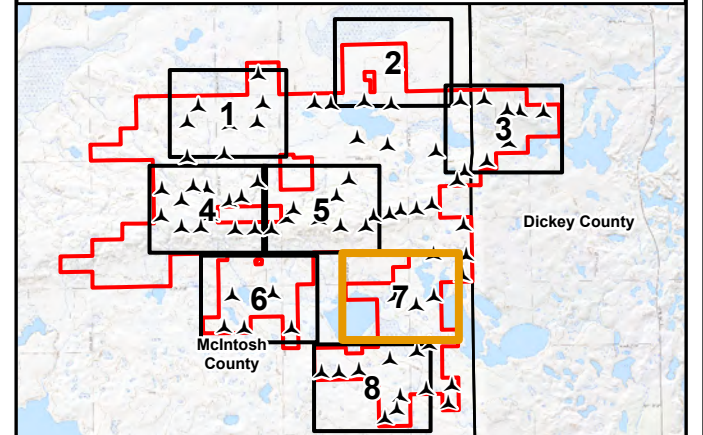
JUN 2022

Map 6 of 8

**North Dakota
Public Service Commission**

**Merricourt Wind Farm
Figure 7**

-  Reclamation Observation Point Location
-  As-Built Turbine Location
-  Met Tower Location
-  Substation
-  O&M Area
-  As-Built Access Road
-  As-Built Collection Line
-  Project Boundary



2021 Aerial Photograph (Source: NAIP)
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 Date: 2022-07-27 Time: 10:28 AM User: zbarsch



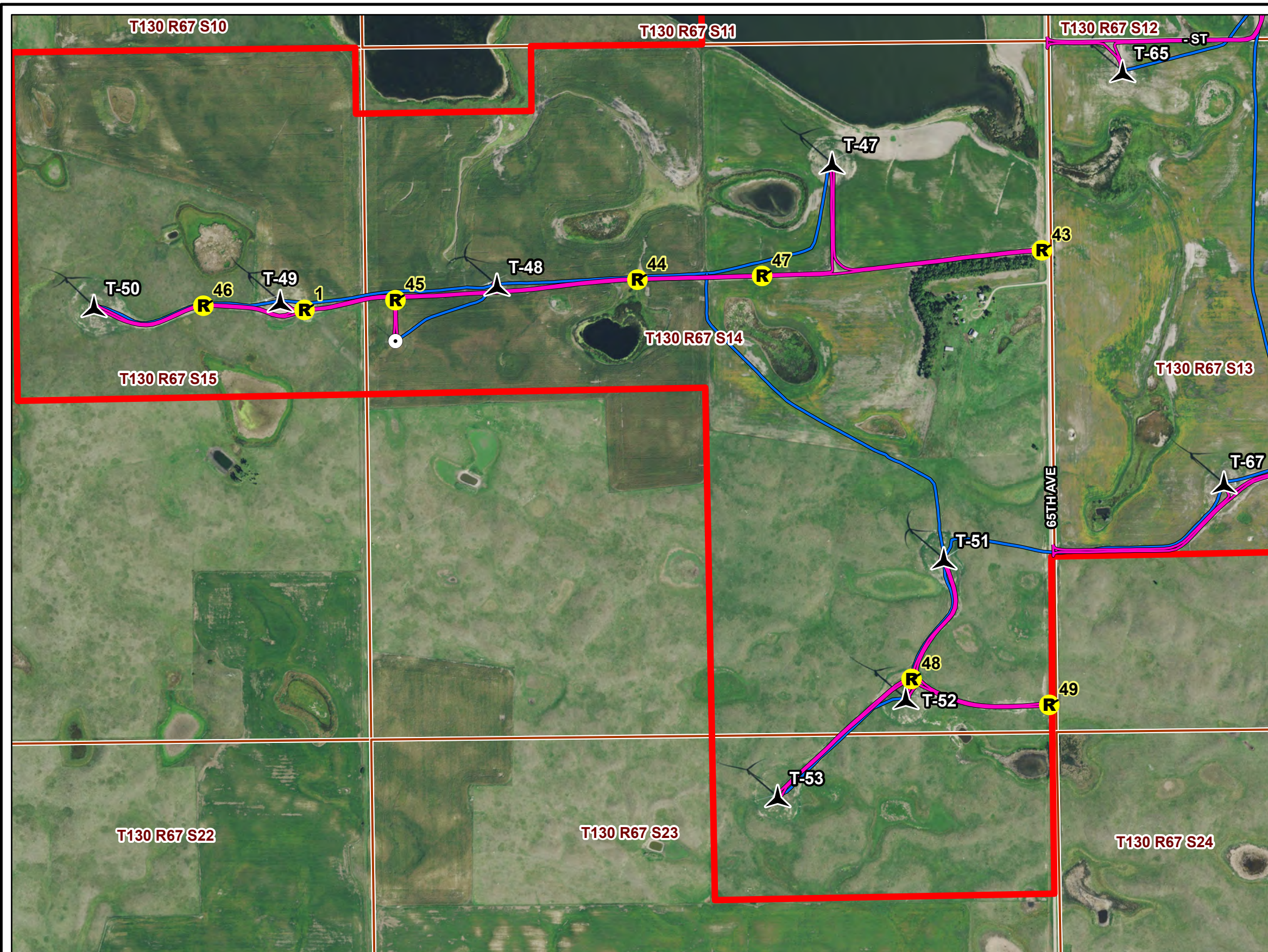
PU-08-932/PU-19-144 MERRICOURT WIND POWER PROJECT

Reclamation Observation Locations



JUN 2022

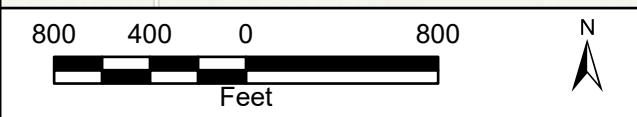
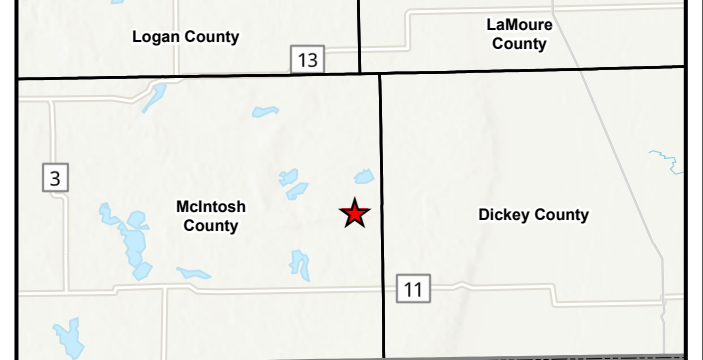
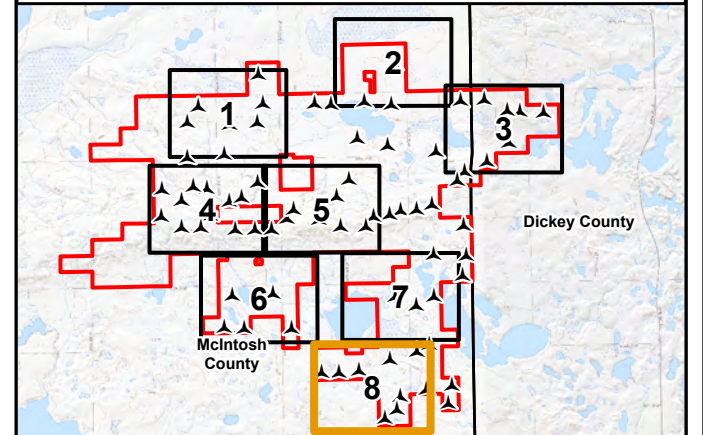
Map 7 of 8



**North Dakota
Public Service Commission**

**Merricourt Wind Farm
Figure 8**

- R Reclamation Observation Point Location
- As-Built Turbine Location
- Met Tower Location
- Substation
- O&M Area
- As-Built Access Road
- As-Built Collection Line
- ▭ Project Boundary



2021 Aerial Photograph (Source: NAIP)
 Path: V:\2277\active\227701305\gis\pro\Merricourt_Wind\Merricourt_Wind.aprx
 Date: 2022-07-27 Time: 10:28 AM User: zbarsch

APPENDIX A

Field Observation Coordinates



Field Observation Points

Observation Point #	Latitude	Longitude
1	46.07924923	-99.04759244
2	46.13716227	-98.98519434
3	46.14924723	-99.02821023
4	46.14926052	-99.02866197
5	46.15154821	-99.03068366
6	46.14645177	-99.02863848
7	46.14753509	-99.07288315
8	46.1459506	-99.07136142
9	46.14253363	-99.08683921
10	46.13678282	-99.09623591
11	46.139177	-99.09578593
12	46.13767465	-99.08688756
13	46.12944201	-99.08644947
14	46.11844405	-99.08138733
15	46.11936127	-99.07694673
16	46.12020924	-99.09553704
17	46.11904273	-99.09862081
18	46.1199907	-99.08978638
19	46.11350166	-99.08729943
20	46.1136017	-99.0898914
21	46.11354722	-99.0903664
22	46.11361289	-99.1046194
23	46.11742246	-99.1046061
24	46.11820127	-99.10440437
25	46.1198972	-99.10415763
26	46.11273807	-99.07726449
27	46.11335752	-99.06519997
28	46.11209791	-99.06163389
29	46.11374144	-99.04960743
30	46.11911887	-99.04777402
31	46.1214167	-99.04546668
32	46.1135472	-99.08685657
33	46.09904329	-99.0845038
34	46.09050556	-99.08545245
35	46.0976721	-99.06930171
36	46.09917846	-99.06931472
37	46.08963188	-99.06349715
38	46.0972162	-99.06644874
39	46.09678756	-99.02948043
40	46.09813757	-99.02938229
41	46.09438583	-99.02462287
42	46.09435722	-99.02466167
43	46.08021327	-99.02526716
44	46.07975412	-99.03751103
45	46.07941857	-99.04483677
46	46.0793754	-99.05064515
47	46.07978415	-99.0337407



PU-08-932/PU-19-144

MERRICOURT WIND POWER PROJECT RECLAMATION INSPECTION

APPENDIX A - Field Observation Coordinates

July 2022

Observation Point #	Latitude	Longitude
48	46.07124759	-99.02944959
49	46.07064783	-99.02530281
50	46.14083247	-99.00373532
51	46.13828106	-98.98540388
52	46.13822907	-98.98770277
53	46.13829107	-98.99079893
54	46.12642827	-98.99850052
55	46.12842253	-98.99441365
56	46.12954719	-98.99134791



APPENDIX B

Observation Point Photolog

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 1

Date Taken: June 30, 2022
Direction Photo is Taken: West

Photo Description: Minor washout near T-49

Latitude: 46.07924923
Longitude: -99.04759244



Observation Point: 2

Date Taken: June 30, 2022 4:42 PM
Direction Photo is Taken: West

Photo Description: Topography matches surrounding land around utility box

Latitude: 46.13716227
Longitude: -98.98519434



Observation Point: 3

Date Taken: June 30, 2022 11:19 AM
Direction Photo is Taken: Northeast

Photo Description: Soybeans are planted around T-32. Minimal erosion visible, but soybeans around pad are stunted/stressed.

Latitude: 46.14924723
Longitude: -99.02821023

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 4

Date Taken: June 30, 2022 11:23 AM
Direction Photo is Taken: South

Photo Description: Reclamation along access road is appropriate and matches surrounding field.

Latitude: 46.14926052
Longitude: -99.02866197



Observation Point: 5

Date Taken: June 30, 2022 11:26 AM
Direction Photo is Taken: Southeast

Photo Description: Healthy soybeans, With no noxious weeds on MET tower pad.

Latitude: 46.15154821
Longitude: -99.03068366



Observation Point: 6

Date Taken: June 30, 2022 11:33 AM
Direction Photo is Taken: North

Photo Description: Wet area in farm field around road. Not an issue but may impact road.

Latitude: 46.14645177
Longitude: -99.02863848

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 7

Date Taken: June 30, 2022 11:46 AM
Direction Photo is Taken: Southeast

Photo Description: Minimal erosion on T-27 pad. Corn growth is consistent across reclaimed and undisturbed area.

Latitude: 46.14753509
Longitude: -99.07288315



Observation Point: 8

Date Taken: June 30, 2022
Direction Photo is Taken: North

Photo Description: Erosion is removing gravel revealing subgrade fabric, and washing into farmland.

Latitude: 46.1459506
Longitude: -99.07136142

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 9

Date Taken: June 30, 2022 11:55 AM
Direction Photo is Taken: Southeast

Photo Description: After conversations with Otter Tail Site Supervisor, this road improvement project along 88th St. is not related to Merricourt Reclamation.

Latitude: 46.14253363
Longitude: -99.08683921



Observation Point: 10

Date Taken: June 30, 2022 12:02 PM
Direction Photo is Taken: South

Photo Description: Landscape adequately reclaimed. Vegetation cover matches surrounding areas, and contains quack grass, absinthe wormwood, foxtail barley, smooth brome, and mustard.

Latitude: 46.13678282
Longitude: -99.09623591

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 11
Date Taken: June 30, 2022 12:07 PM
Direction Photo is Taken: Northeast

Photo Description: Seeded vegetation is coming in. Crested wheatgrass, quackgrass, foxtail barley. Canada thistle population off road, and is going to seed.

Latitude: 46.139177
Longitude: -99.09578593



Observation Point: 12
Date Taken: June 30, 2022 12:42 PM
Direction Photo is Taken: East

Photo Description: Overall well reclaimed. Seeded vegetation coming in.

Latitude: 46.13767465
Longitude: -99.08688756



Observation Point: 13
Date Taken: June 30, 2022 12:45 PM
Direction Photo is Taken: East

Photo Description: No BMPs along ditch. Culverts are free of sediment. Reseeding recommended. Disturbance currently is from communication utility installation that was observed nearby.

Latitude: 46.12944201
Longitude: -99.08644947

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 14

Date Taken: June 30, 2022 12:53 PM
Direction Photo is Taken: West

Photo Description: Address erosion and reseed. BMP's may be necessary. Wattles on nearby culverts are appropriate.

Latitude: 46.11844405
Longitude: -99.08138733



Observation Point: 15

Date Taken: June 30, 2022
Direction Photo is Taken: Northeast

Photo Description: Washout extends to T-17. Ditch has bare areas from slope wash. Vegetation along crops not coming in. Veg seen is wheatgrass, Canada thistle, foxtail barley, and absinthe wormwood.

Latitude: 46.11936127
Longitude: -99.07694673

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 16

Date Taken: June 30, 2022

Direction Photo is Taken:

Photo Description: Road washing out, deep towards turbine. Vegetation cover is overall appropriate. Species observed: field bindweed, lambsquarter, foxtail barley, smooth brome, quack, sweet clover

Latitude: 46.12020924

Longitude: -99.09553704



Observation Point: 17

Date Taken: June 30, 2022 1:08 PM

Direction Photo is Taken: Southwest

Photo Description: Unplanted cropfield, matches surrounding field. The whole field was recently sprayed.

Latitude: 46.11904273

Longitude: -99.09862081



Observation Point: 18

Date Taken: June 30, 2022 1:13 PM

Direction Photo is Taken: North

Photo Description: Gully has eroded on access road transporting gravel to seeded ROW and pasture near T-3.

Latitude: 46.1199907

Longitude: -99.08978638

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 19

Date Taken: June 30, 2022 1:17 PM

Direction Photo is Taken: East

Photo Description: Adequate seeding and reclamation of access road and approach near T-7.

Latitude: 46.11350166

Longitude: -99.08729943



Observation Point: 20

Date Taken: June 30, 2022 1:21 PM

Direction Photo is Taken: Ground

Photo Description: Culvert is filled in with sediment. Appears to have original seeded plants. Straw blankets, wattles, or other BMP's are needed.

Latitude: 46.1136017

Longitude: -99.0898914



Observation Point: 21

Date Taken: June 30, 2022

Direction Photo is Taken: Ground

Photo Description: Area of erosion not addressed, and gully has grown.

Latitude: 46.11354722

Longitude: -99.0903664

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 22

Date Taken: June 30, 2022 1:28 PM

Direction Photo is Taken: West

Photo Description: Washout on access road is moving sediment into seeded portion of the Project area. Vegetation is dominated by quackgrass and brome

Latitude: 46.11361289

Longitude: -99.1046194



Observation Point: 23

Date Taken: June 30, 2022 1:31 PM

Direction Photo is Taken: South

Photo Description: Road north of T-10 severely eroded and is impacting surrounding land, lack of vegetation may be deliberate by the farmer.

Latitude: 46.11742246

Longitude: -99.1046061

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 24

Date Taken: June 30, 2022

Direction Photo is Taken: Ground

Photo Description: Appropriate BMPs around Culvert draining to wetland. Canada Thistle appears to have been sprayed.

Latitude: 46.11820127

Longitude: -99.10440437



Observation Point: 25

Date Taken: June 30, 2022 1:31 PM

Direction Photo is Taken:

Photo Description: Road north of T-10 severely eroded and washing into field. Cropland is unplanted.

Latitude: 46.1198972

Longitude: -99.10415763



Observation Point: 26

Date Taken: June 30, 2022

Direction Photo is Taken: East

Photo Description: Collection line adequately reclaimed, and vegetation cover matches surrounding areas. Noxious weeds present.

Latitude: 46.11273807

Longitude: -99.07726449

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 27

Date Taken: June 30, 2022
Direction Photo is Taken: North

Photo Description: Crop growth around T-22 matches surrounding field.

Latitude: 46.11335752
Longitude: -99.06519997



Observation Point: 28

Date Taken: June 30, 2022 1:51 PM
Direction Photo is Taken: Ground

Photo Description: Reseeding slope recommended. Road to east eroding. Other areas road right-of-way has acceptable vegetative cover.

Latitude: 46.11209791
Longitude: -99.06163389



Observation Point: 29

Date Taken: June 30, 2022
Direction Photo is Taken: North East

Photo Description: Road wash out impacting pasture and seeded vegetation. Overall plant cover is appropriate and matches surrounding areas. Unclear if seeded.

Latitude: 46.11374144
Longitude: -99.04960743

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 30

Date Taken: June 30, 2022

Direction Photo is Taken: South

Photo Description: T-35 pad reclamation is adequate. Overall seeded crops are consistent in adjacent reclaimed areas.

Latitude: 46.11911887

Longitude: -99.04777402



Observation Point: 31

Date Taken: June 30, 2022 2:05 PM

Direction Photo is Taken: Southwest

Photo Description: Crops are planted and similar to undisturbed areas, but there is washed out road areas that have not been addressed since the as built inspection.

Latitude: 46.1214167

Longitude: -99.04546668



Observation Point: 32

Date Taken:

Direction Photo is Taken: South

Photo Description: Adequate vegetation growing in right-of-way.

Latitude: 46.1135472

Longitude: -99.08685657

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 33

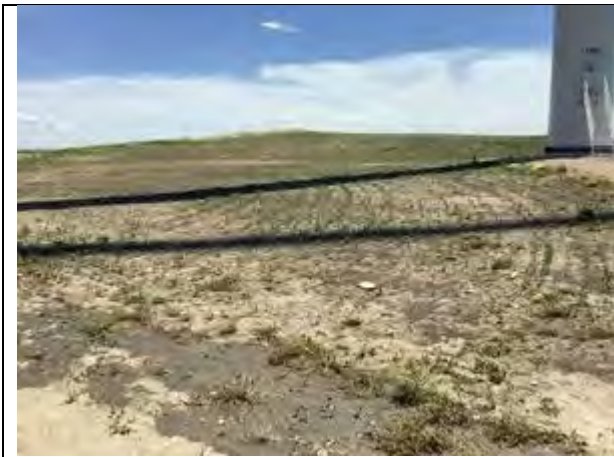
Date Taken: June 30, 2022

Direction Photo is Taken: Northeast

Photo Description: Seeded veg is providing appropriate cover. Species include: milkweed, smooth brome, sweet clover, alfalfa.

Latitude: 46.09904329

Longitude: -99.0845038



Observation Point: 34

Date Taken: June 30, 2022

Direction Photo is Taken: Southeast

Photo Description: Erosion has yet to be addressed. Planted soybeans are growing well and are similar to the surrounding crops.

Latitude: 46.09050556

Longitude: -99.08545245



Observation Point: 35

Date Taken: June 30, 2022

Direction Photo is Taken: North

Photo Description: Planted soybeans appear similar to surrounding area crops. Minimal erosion to east of access road.

Latitude: 46.0976721

Longitude: -99.06930171

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 36

Date Taken: June 30, 2022
Direction Photo is Taken: East

Photo Description: Unaddressed area of soil erosion.

Latitude: 46.09917846
Longitude: -99.06931472



Observation Point: 37

Date Taken: June 30, 2022 3:06 PM
Direction Photo is Taken: North

Photo Description: Collection line and planted crops are comparable to undisturbed area around T-45.

Latitude: 46.08963188
Longitude: -99.06349715



Observation Point: 38

Date Taken: June 30, 2022 3:11 PM
Direction Photo is Taken: Ground

Photo Description: Cornfield growth is comparable to undisturbed area and acceptable. Ditch remains unvegetated.

Latitude: 46.0972162
Longitude: -99.06644874

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 39

Date Taken: June 30, 2022 3:16 PM
Direction Photo is Taken: North

Photo Description: Cropland unseeded. Grading is adequate with minimal erosion around T-46.

Latitude: 46.09678756
Longitude: -99.02948043



Observation Point: 40

Date Taken: June 30, 2022
Direction Photo is Taken: Northeast

Photo Description: Hill cut for road is eroding. It appears to be a cut for access road, but Stantec cannot determine if it existed prior to construction. This could be verified with landowner.

Latitude: 46.09813757
Longitude: -99.02938229

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 41

Date Taken: June 30, 2022
Direction Photo is Taken: Ground

Photo Description: Planted soybeans are growing well. Closest rows to access road are slightly stressed.

Latitude: 46.09438583
Longitude: -99.02462287



Observation Point: 42

Date Taken: June 30, 2022
Direction Photo is Taken: North

Photo Description: Ditch is well vegetated and graded.

Latitude: 46.09435722
Longitude: -99.02466167



Observation Point: 43

Date Taken: June 30, 2022 2:01 PM
Direction Photo is Taken: North

Photo Description: Lack of vegetation and erosion of road material into ditch. The rock enforcement has also washed out. Recommend addressing.

Latitude: 46.08021327
Longitude: -99.02526716

PU-08-932 (Merricourt Wind): Observation Point Photolog

<p>Missing Image.</p>	<p>Observation Point: 44 Date Taken: June 30, 2022 3:28 PM Direction Photo is Taken: West Photo Description: Drain #81 Needs addressing. Latitude: 46.07975412 Longitude: -99.03751103</p>
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	<p>Observation Point: 45 Date Taken: June 30, 2022 3:31 PM Direction Photo is Taken: North Photo Description: Gravel washing into road and depositing in unplanted field. Latitude: 46.07941857 Longitude: -99.04483677</p>
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	<p>Observation Point: 46 Date Taken: June 30, 2022 3:33 PM Direction Photo is Taken: East Photo Description: Adequate revegetation cover. Ragweed and small seeded grasses are dominant. Latitude: 46.0793754 Longitude: -99.05064515</p>
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PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 47

Date Taken: June 30, 2022 3:46 PM

Direction Photo is Taken: North

Photo Description: Appropriate BMP use on road crossing with healthy soybeans.

Latitude: 46.07978415

Longitude: -99.0337407



Observation Point: 48

Date Taken: June 30, 2022 3:57 PM

Direction Photo is Taken: Northeast

Photo Description: Adequate vegetation cover. Seeded grass, too small to confidently identify. Observed common species are ragweed, brome, and quackgrass.

Latitude: 46.07124759

Longitude: -99.02944959



Observation Point: 49

Date Taken: June 30, 2022 3:59 PM

Direction Photo is Taken: North

Photo Description: Noxious weed (Canada thistle) present. Overall appropriate vegetive cover but a lack of seeded species as ragweed and sweet clover was observed.

Latitude: 46.07064783

Longitude: -99.02530281

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 50

Date Taken: June 30, 2022 4:12 PM

Direction Photo is Taken: East

Photo Description: Minimal erosion and healthy crops along roads to T-54 and T-55.

Latitude: 46.14083247

Longitude: -99.00373532



Observation Point: 51

Date Taken: June 30, 2022

Direction Photo is Taken: Northeast

Photo Description: Crop growth is adequate along this section of road. Ditch has some erosion from last year but adequate plant coverage from sweet clover, red root pigweed in 2022. Seeded Grasses are visibly growing in.

Latitude: 46.13828106

Longitude: -98.98540388



Observation Point: 52.1

Date Taken: June 30, 2022

Direction Photo is Taken: Northwest

Photo Description: Excellent crop growth along access road. No visible signs of stress. Soybeans were planted through T-70 pad.

Latitude: 46.13822907

Longitude: -98.98770277

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 52.2
Date Taken: June 30, 2022
Direction Photo is Taken: North

Photo Description: Excellent crop growth along access road. No visible signs of stress. Soybeans were planted through T-70 pad.

Latitude: 46.13822907
Longitude: -98.98770277



Observation Point: 53
Date Taken: June 30, 2022 4:24 PM
Direction Photo is Taken: Ground

Photo Description: Erosion of access road downslope unaddressed, but adequate crop growth along access road.

Latitude: 46.13829107
Longitude: -98.99079893



Observation Point: 54
Date Taken: June 30, 2022 4:33 PM
Direction Photo is Taken: South

Photo Description: Unvegetated area from last visit is now under 60% vegetation cover (of non-seeded vegetation), recovering to surrounding area.

Latitude: 46.12642827
Longitude: -98.99850052

PU-08-932 (Merricourt Wind): Observation Point Photolog



Observation Point: 55

Date Taken: June 30, 2022

Direction Photo is Taken:

Photo Description: Appropriate plant growth in ditch and field. Difficult to ascertain what species were seeded.

Latitude: 46.12842253

Longitude: -98.99441365



Observation Point: 56

Date Taken: June 30, 2022 4:37 PM

Direction Photo is Taken: North

Photo Description: T-78 pad and access road well reclaimed and graded. Minimal erosion along margins and planted corn is growing healthily up to the gravel

Latitude: 46.12954719

Longitude: -98.99134791