Appendix J
Wetland Reports and Studies

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Appendix J1:
Cover Letter to USACE for Aquatic Resource Delineation Report

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Jamestown to Ellendale

December 11, 2024

Samantha Swanberg
USACE – North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504

Otter Tail Power Company (OTP) and Montana-Dakota Utilities Co. (MDU) jointly, (Owners) are partnering to develop, construct, and co-own a new 345-kilovolt (kV) transmission line (Project). The Project will run from an existing substation north of Jamestown, North Dakota to an existing substation northwest of Ellendale, North Dakota.

A request for preliminary jurisdictional determination (PJD) was submitted to the United States Army Corps of Engineers (USACE) North Dakota regulatory office in January of 2024 and the PJD was received from the USACE in August 2024.

The field aquatic resources delineation was completed between May and September 2024. The delineation resulted in the identification and mapping of a total of 368 aquatic resources, covering approximately 200.1acres. Three hundred twenty-five wetlands, totaling 165.7acres, were identified and mapped. Forty-three other waters were also mapped, with the James River and associated tributaries making up the majority of other waters identified during the delineation.

We respectfully submit this field aquatic resources delineation report for your review and request a pre-application meeting with your office. Additionally, there are 14 aquatic resources which were delineated in the field and have not been reviewed for a jurisdictional determination.

This information is being submitted to the USACE in anticipation of a nationwide permit (NWP 57) under Section 404 of the Clean Water Act and a Section 10 permit under the Rivers and Harbors Act of 1899. We request a jurisdictional determination on the 14 aquatic resources not yet reviewed in preparation for permit submittal.

If you have any questions or comments, please contact me directly at 701-353-6139 or jennifer.hanley@hdrinc.com.

Sincerely,

Jennifer Hanley

Jennifer Hanley, PE
Senior Environmental Project Manager
HDR Engineering, Inc.

Enclosures

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Appendix J2:
Aquatic Resource Delineation Report

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AQUATIC RESOURCE DELINEATION REPORT

Jamestown to Ellendale (JetX) Transmission Line

December 2024

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Jamestown to Ellendale (JETx) Transmission Line

DRAFT Aquatic Resource Delineation Report

Otter Tail Power Company &

Montana-Dakota Utilities Co.

December 10, 2024

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Executive Summary

The aquatic resources delineation was conducted in accordance with the United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE, 2010). The delineation report was completed in accordance with the USACE Revised Guidance Letter (Effective Date: November 1, 2019) and the USACE Minimum Standards for Aquatic Resource Delineation Reports.

For ordinary high-water mark (OHWM) delineations, the USACE Regulatory Guidance Letter (RGL, No. 05-05), Ordinary High Water Mark Identification, was used.

A complete desktop delineation was completed for the proposed route in December 2023. Additional aquatic resource delineations were completed for the proposed alternate routes and associated buffers in January 2024. Desktop delineation of aquatic resources was also completed as the Project developed and the route was refined.

A request for preliminary jurisdictional determination (PJD) was submitted to the USACE North Dakota regulatory office in January of 2024 and the PJD was received from the USACE in August 2024. This information is being submitted to the USACE in anticipation of a nationwide permit (NWP 57) under Section 404 and a Section 10 permit, both under the Clean Water Act.

The field aquatic resources delineation was completed for the Project Corridor by Alex Brazeal of HDR, Inc (HDR) between May and September 2024. A total of 368 aquatic resources covering approximately 200.1 acres (ac) were identified and mapped within the Project Corridor.

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List of Acronyms and Abbreviations

ac	Acres
APT	Antecedent Precipitation Tool
ft	Feet
GIS	Geographic Information System
GNSS	Global Navigation Satellite System
JETx	Jamestown to Ellendale Transmission Line
kV	Kilovolt
LiDAR	Light Detection and Ranging
LRTP	Long Range Transmission Planning
MDU	Montana-Dakota Utilities Company
mi	Miles
MISO	Midcontinent Independent System Operator
OHWM	Ordinary High-Water Mark
OTP	Otter Tail Power Company
PSC	Public Service Commission
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
WOUS	Waters of the United States

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Introduction

Project Background

Otter Tail Power Company (OTP) and Montana-Dakota Utilities Co. (MDU) jointly, (Owners) are partnering to develop, construct, and co-own a new 345-kilovolt (kV) transmission line (Project). The Jamestown to Ellendale transmission line (JETx) will run from an existing substation north of Jamestown, North Dakota to an existing substation northwest of Ellendale, North Dakota.

The Owners are responsible for the Certificate of Corridor Compatibility and Route Permit for the Project required by the ND Public Service Commission (PSC). As part of this application process, the Owners contracted HDR Engineering, Inc (HDR) to perform aquatic resource delineations along the proposed route and within the associated right-of-way (ROW). A request for preliminary jurisdictional determination (PJD) was submitted to the United States Army Corps of Engineers (USACE) North Dakota regulatory office in January of 2024 and the PJD was received from the USACE in August 2024. This information is being submitted to the USACE in anticipation of a nationwide permit (NWP 57) under Section 404 and a Section 10 permit.

Project Corridor and Location

The Project passes through Stutsman, LaMoure, and Dickey counties, North Dakota for approximately 95 miles (mi), spanning the James River east of Jamestown, ND approximately 1.2 mi south of Interstate 94 and crossing multiple aquatic resources. The Project is located in Townships 129-141, R63, across several sections (Appendix E).

The Project Corridor is defined as the proposed route and an associated 150-foot (ft) Right-of-Way (ROW) covering approximately 1,655.3 acres (ac) (Figure 1).

Figure 1. Location of the JETx Project Corridor in Stutsman, LaMoure, and Dickey counties, North Dakota.

Eco-Region Description

The Project is within the Northern Glaciated Plains Level III Ecoregion. The Northern Glaciated Plains ecoregion is characterized by a flat to gently rolling landscape composed of glacial drift. The subhumid conditions foster a grassland transitional between tall and shortgrass prairie. High concentrations of temporary and seasonal wetlands create favorable conditions for waterfowl nesting and migration. Because of the productive soil and level topography, this ecoregion is almost entirely cultivated, with many wetlands drained or tilled and planted. The prairie grasses have been largely replaced by fields of row crops and hay fields (USFS 1994).

Land Cover

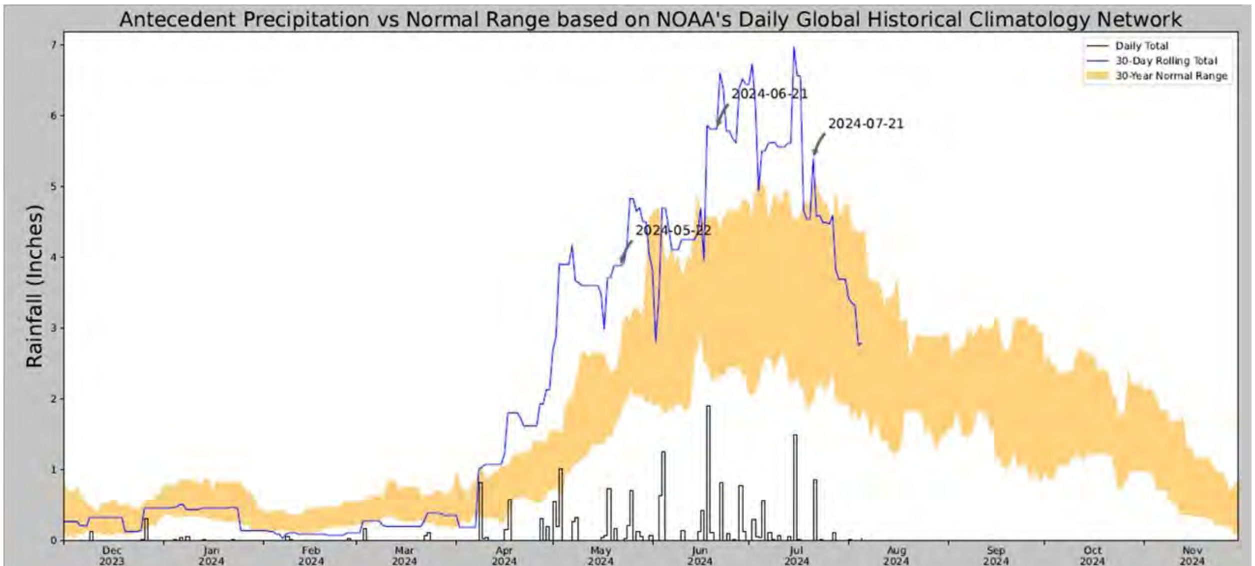
The Project Corridor primarily consists of cultivated crops (62.2%) followed by Hay/Pasture (20.2%), Herbaceous (10.1%), Emergent Herbaceous Wetlands (4.4%), Developed, Open Space (1.7%), and Open Water (1.0%). All other land cover types each account for less than (1%) of the Project Corridor [(Table 1; Appendix B); NLCD 2021].

Table 1. Land cover types in the JETx Project Corridor in Stutsman, LaMoure, and Dickey counties, North Dakota.

NLCD Land Cover Category	Acres	Percent in Corridor
Cultivated Crops	1,096.7	62.2%
Hay/Pasture	355.5	20.2%
Herbaceous	178.1	10.1%
Emergent Herbaceous Wetlands	77.2	4.4%
Developed, Open Space	29.2	1.7%
Open Water	17.1	1.0%
Deciduous Forest	2.8	0.2%
Developed, Medium Intensity	2.4	0.1%
Developed, Low Intensity	2.0	0.1%
Shrub/Scrub	1.5	0.1%
Barren Land	1.0	0.1%
Woody Wetlands	0.3	<0.1%
Developed, High Intensity	0.0	<0.1%
Total	**1,763.9**	**100.0%**

Site Precipitation

According to the USACE Antecedent Precipitation Tool, the site exhibited wetter than normal conditions for the three-month period prior to the wetland delineation, with the Palmer Drought Severity Index at incipient wetness and the Web-based Water Budget Interactive Modeling Program (WebWIMP) water balance noting it was in the dry season for that location. The area received exceptional rainfall above the 30-year normal range average during the weeks leading up to the delineation (Figure 2).



Coordinates	47.326709, -98.830544
Observation Date	2024-07-21
Elevation (ft)	1439.295
Drought Index (PDSI)	Moderate wetness (2024-06)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-07-21	2.004331	5.03937	5.397638	Wet	3	3	9
2024-06-21	2.329921	4.563386	5.811024	Wet	3	2	6
2024-05-22	1.791732	2.682284	3.88189	Wet	3	1	3
Result							Wetter than Normal - 18

US Army Corps of Engineers.

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
COURTENAY 1 NW	47.24, -98.5847	1523.95	12.987	84.655	6.944	10490	69
EDMUNDS ARROWWOOD REF	47.2653, -98.8578	1459.974	12.927	63.976	6.644	81	0
PINGREE 5.4 NW	47.2157, -98.9944	1549.869	19.296	25.919	9.183	52	21
JAMESTOWN MUNI AP	46.9258, -98.6703	1495.079	22.08	28.871	10.573	729	0

Figure 2. Results of the Antecedent Precipitation vs Normal Range

Methodology

The aquatic resources delineation was conducted in accordance with the USACE Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE, 2010). The delineation was conducted in accordance with the USACE Revised Guidance (Effective Date: November 1, 2019) and the USACE Minimum Standards for Aquatic Resource Delineation Reports.

For ordinary high-water mark (OHWM) delineations, the USACE Regulatory Guidance Letter (RGL, No. 05-05), Ordinary High-Water Mark Identification, was used.

Desktop Delineation

A complete desktop delineation was completed for the proposed route in December 2023. Additional aquatic resource delineations were completed for the proposed alternate routes and associated buffers in January 2024. Desktop delineation of aquatic resources was also completed as the Project developed and the route was refined.

Aquatic resources boundaries within the Project Corridor were determined by interpreting data from multiple sources. Aerial imagery from 2003, 2005, 2006, 2009, 2010, 2013, and 2016 was compared to currently available imagery (google earth).

Available spatial data from National Hydrography Dataset (NHD) and The National Wetland Inventory – Version 2 (NWI) were used to inform location and boundaries of historic aquatic resources [(U.S. Geological Survey, 2022); (USFWS, 2018); (Appendix B)].

Soils data from Web Soil Survey classifies soils by the percentage of components within the soil map unit which are identified as hydric. These five classifications are mapped as follows: Nonhydric soils containing <1% hydric soil components within the map unit, Predominantly Nonhydric (1%-25%), Partially Hydric (26%-50%), Predominantly Hydric (51%-95%), and Hydric soils containing (95%-100%) hydric soil components within the map unit. This data highlights areas with primarily hydric soil, indicating a potential aquatic resource for the field delineation (Soil Survey Staff, 2021; Appendix B).

Elevation mapping with 10 ft. and 2 ft. contours produced from publically available light detection and ranging (LiDAR) data aids in identifying areas with geomorphic position inidicating potential aquatic resources (USGS 2023; Appendix B).

Additionally, the Antecedent Precipitation Tool (APT) interpolated data from nearby weather stations which was referenced to compare the 3-month average precipitation at the site to normal conditions at the time of the field delineation (USGS 2020; Figure 2).

All available background resources were utilized, and 328 aquatic resources were identified within the Project Corridor. A Cowardin classification was assigned to aquatic resources delineated during the office delineation (Cowardin, 1979).

Field Delineation

Areas of the proposed ROW where right of entry has been granted were field delineated. During the field delineation, HDR wetland scientists evaluated all features identified during the desktop delineation as well as all other wetland features encountered within the ROW. Following coordination with USACE, HDR mapped wetland features which could be avoided by Project activities using a two-parameter approach based on a visual assessment of vegetation and hydrology.

If a feature met applicable tests for hydrophytic vegetation (rapid assessment, dominance test, or prevalence index) and hydrology indicators were present, hydric soils were assumed to be present as allowed in the [manual] and a wetland boundary was mapped. The desktop boundary was confirmed, or the current boundary was mapped following wetland/upland vegetation breaks, slope, and hydrology indicators (USACE 1987). Wetland indicators included obligate hydrophytic vegetation ([OBL]; e.g. cattails, rushes, and sedges) and standing water or saturation. If a site was dominated by obligate plant species, lacked upland (UPL) vegetation, and had hydrology indicators present, it was documented as a wetland and mapped accordingly. If a site had a mix of OBL, facultative wet (FACW), facultative (FAC), and UPL plant species, then a dominance test and prevalence index was calculated to determine if hydrophytic vegetation was dominant (greater than 50 percent coverage).

If the site did not meet applicable tests for hydrophytic vegetation, HDR wetland scientists documented the site with an upland sampling “No-Point”.

Wetland features which intersect or are located very near Project infrastructure (e.g. structure locations, access roads) and cannot feasibly be avoided by Project activities were delineated in accordance with the USACE Wetlands Delineation Manual (USACE, 1987) and the Regional Supplement to the USACE Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE, 2010). Wetland boundaries were determined through analysis of hydrophytic vegetation, hydric soils, and indicators of wetland hydrology at paired test hole sampling points.

Plant species within the Project Corridor that occurred at each wetland and upland sampling location were identified and assigned a wetland indicator status according to the North American Digital Flora: National Wetland Plant List, 2020. The wetland indicator status is provided to show the wetland affinity for each plant. Vegetation names are consistent with US Department of Agricultural Natural Resource Conservation Service (USDA NRCS) Plants Database naming protocols.

Hydric soil properties described follow *Field Indicators of Hydric Soils in the United States* (USDA-NRCS 2018). Soils were examined and characterized at each sample location.

The presence of wetland hydrology was determined through direct field observation of primary and/or secondary wetland hydrology indicators.

Wetland boundaries were mapped in the field using the FieldMaps application from ArcGIS, paired with an EOS ArrowLite 100 receiver producing sub-meter accuracy.

Results

Wetlands

During the field delineation, 325 wetlands totaling 165.7 ac were identified and mapped (Appendix A; Appendix G). Most of the wetlands identified during the desktop delineation are isolated wetlands consistent with the prairie pothole region, with fewer amounts of slope wetlands associated with drainages of the James River.

Other Waters

The field delineation resulted in 43 mapped other waters, totaling approximately 34.4 ac of the Project Corridor (Appendix A; Appendix G). The James River and several associated tributaries make up a majority of the other waters identified during the delineation.

Aquatic Resource Classifications

PEM1C Wetlands

There are 183 aquatic resources within the Project Corridor which are classified as PEM1C. This subclass of wetlands is seasonally flooded with nontidal surface water that is present for extended periods, especially early in the growing season, but if absent by the end of the growing season in most years.

PEM1A Wetlands

There are 144 aquatic resources classified as PEM1A within the Project Corridor. PEM1A wetlands are temporarily flooded with nontidal surface water that is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for most of the season.

PABF Wetlands

Nine wetlands fall within the classification of PABF wetlands, which are semi-permanently flooded where surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

R4SBC Waters

There are 18 aquatic resources within the Project Corridor which fall within the classification of R4SBC streams. R4SBC streams are classified as riverine systems that includes all wetlands and deepwater habitats contained within a channel. This Cowardin classification represents intermittent channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent. Typically, this class of stream is seasonally flooded with nontidal surface water for extended periods, especially early in the growing season but is absent by the end of the growing season in most years.

R5UBH Waters

Two aquatic resources within the Project Corridor are classified as R5UBH streams. R5UBH streams are classified as riverine systems that include all wetlands and deepwater habitats contained within a channel. This Cowardin classification represents lower-perennial channels that contain flowing water year-round, except during years of extreme drought. This Cowardin class is characterized by a low gradient with substrate consisting mainly of sand and mud. Oxygen deficits may sometimes occur in these streams. R5UBH streams contain an unconsolidated bottom with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Upland Sampling Locations

A total of eight upland sampling points were collected in areas that presented potential wetland indicators based on aerial imagery and available background data utilized during the desktop delineation. Upland sampling locations were taken along the location of a mapped NWI feature, however these upland sampling locations lacked hydrophytic vegetation, hydric soil, and no hydrology indicators were present.

Conclusion

325 wetlands and 43 other waters totaling approximately 200.1 ac have been delineated within the Project Corridor based on the desktop and field delineation. The aquatic resources within the Project Corridor primarily consist of depressional “pothole” wetlands within or adjacent to

cultivated crop fields (Appendix C). If USACE desires to access property to complete or confirm a jurisdictional determination, HDR requests to coordinate that on behalf of the Owners (Appendix F).

The purpose of this report is to support an anticipated nationwide permit (NWP 57) under Section 404 and Section 10 permitting under the Clean Water Act. The geographic information system (GIS) spatial files will be used during route refinement to mitigate impacts to wetlands including avoidance and minimization strategies as part of future development plans.

References

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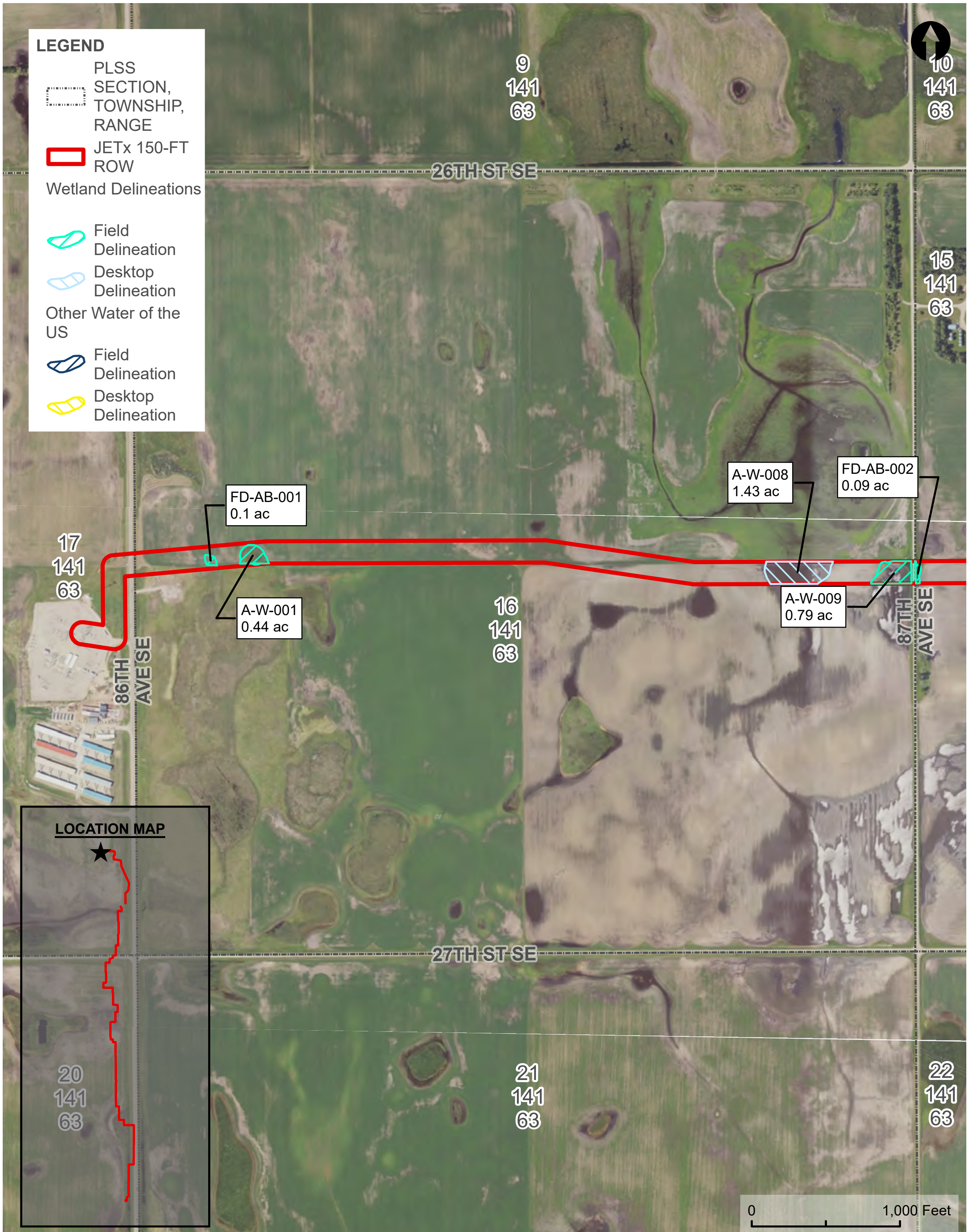
Appendix A. Aquatic Resources Delineation Map



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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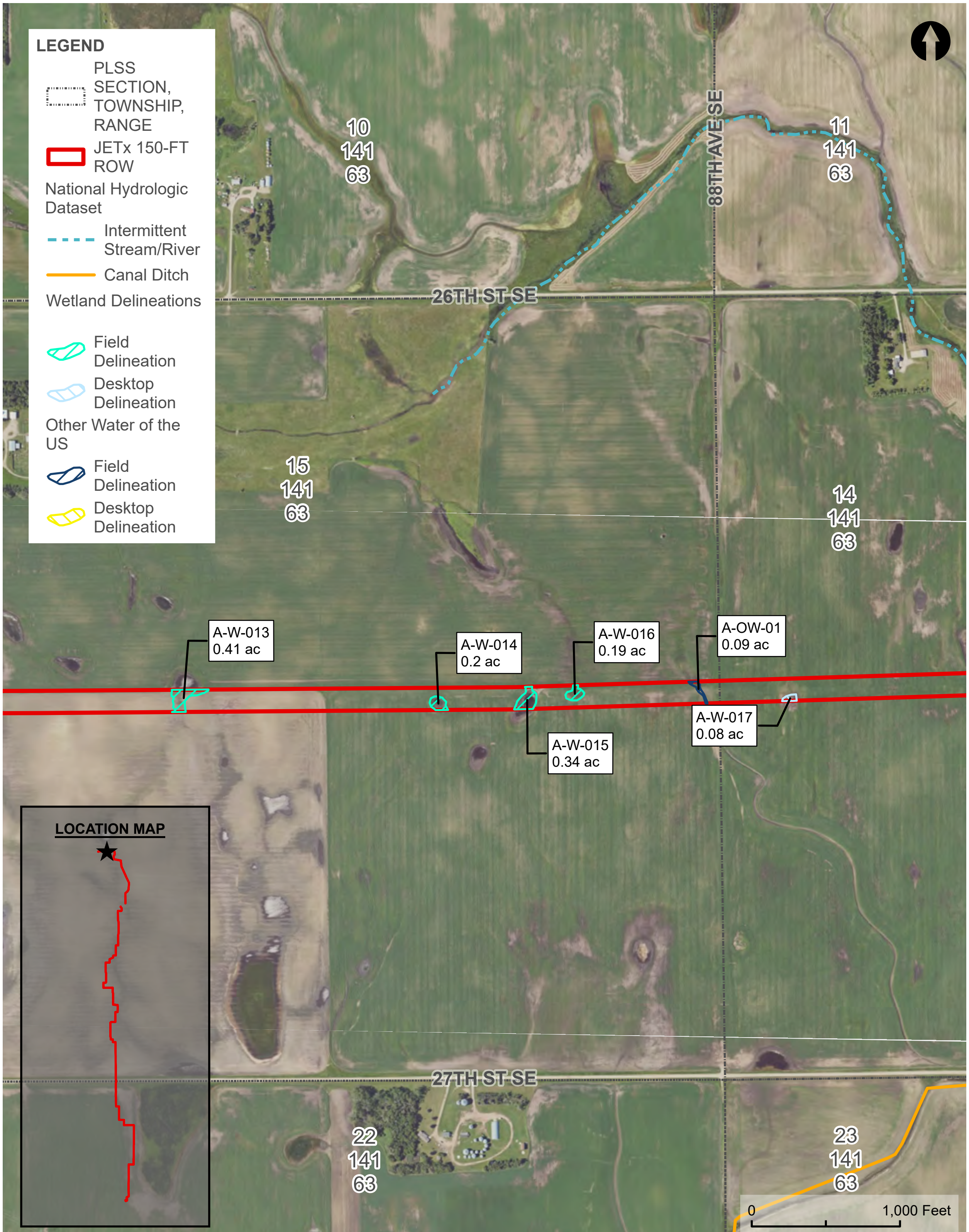
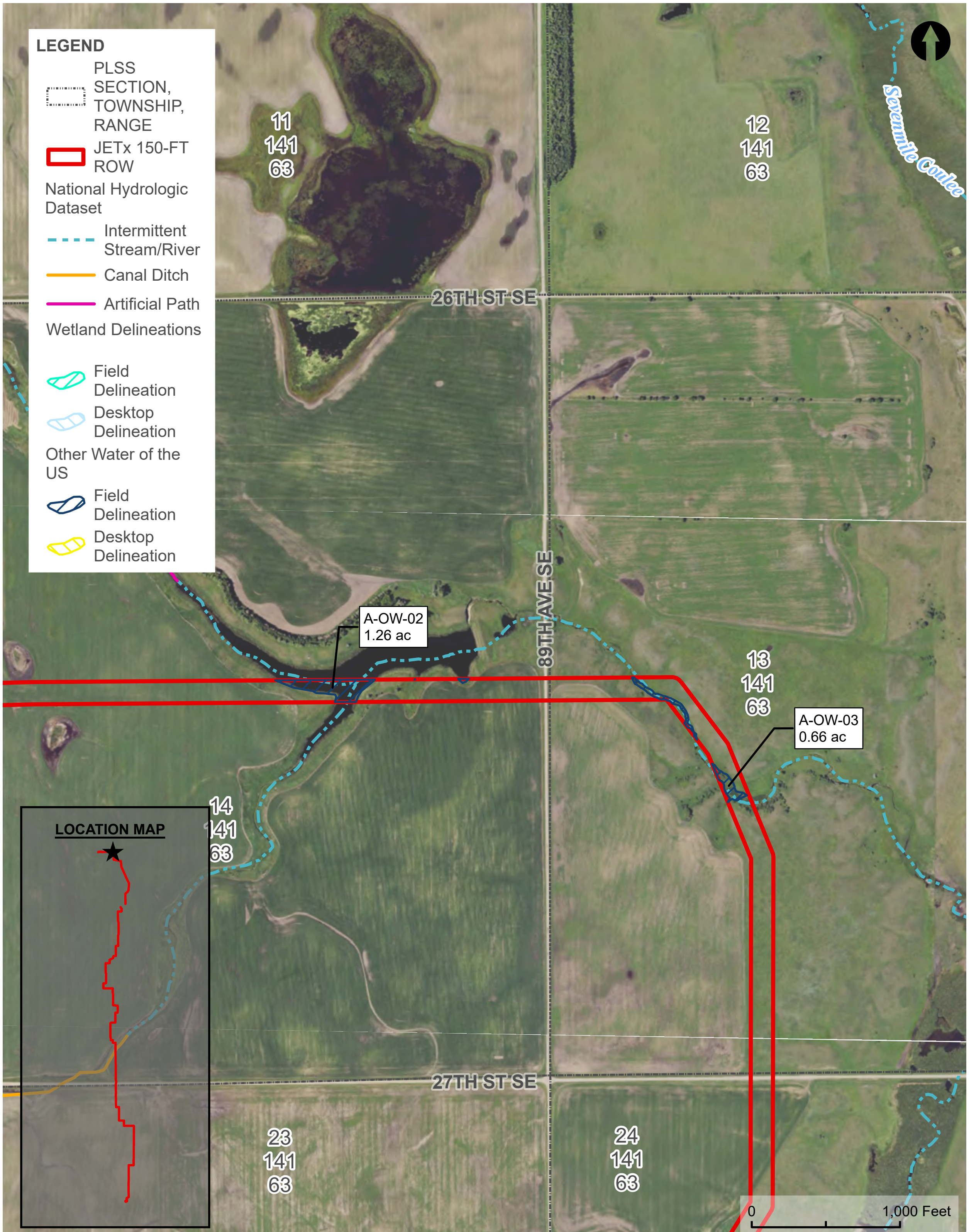
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

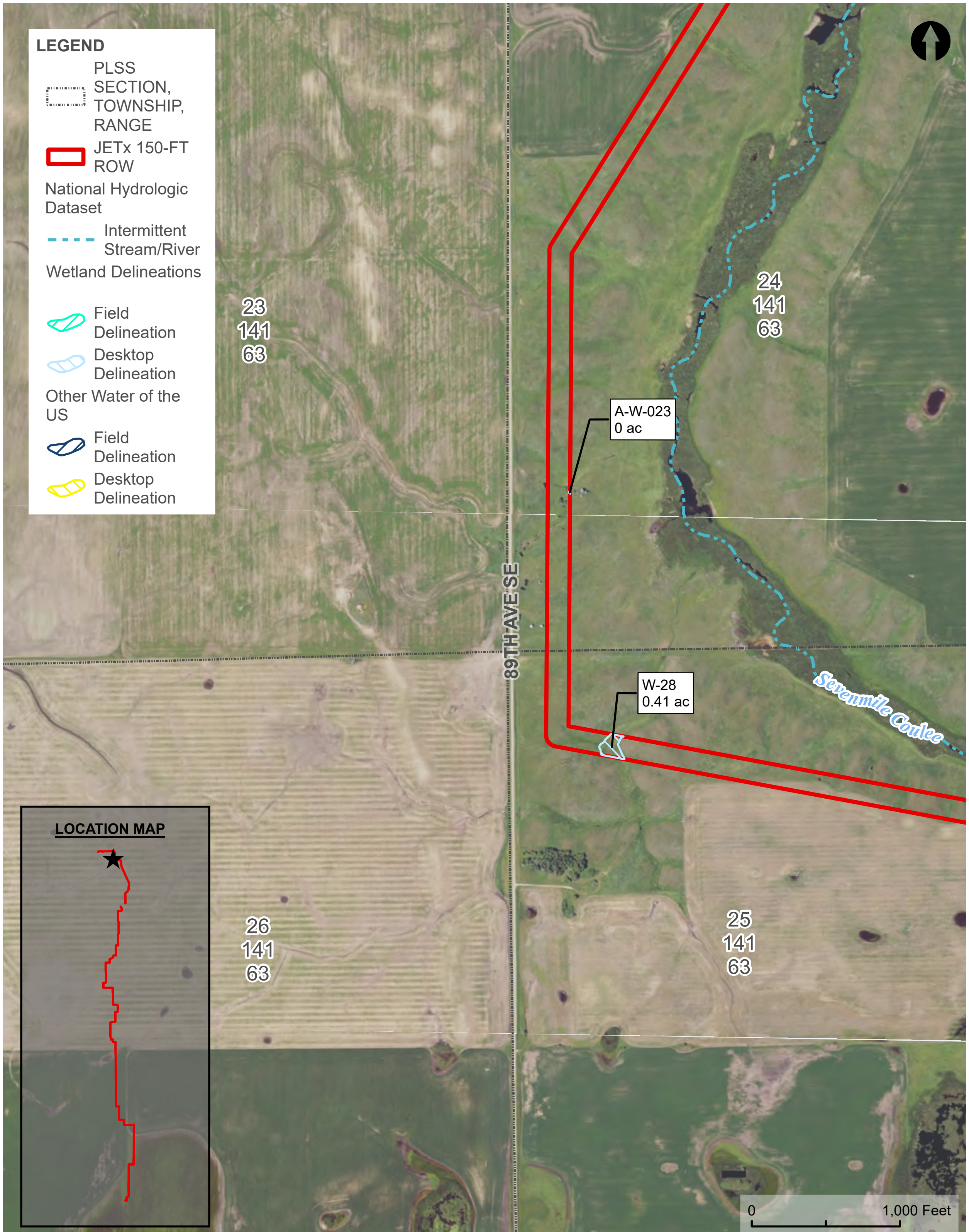
FIGURE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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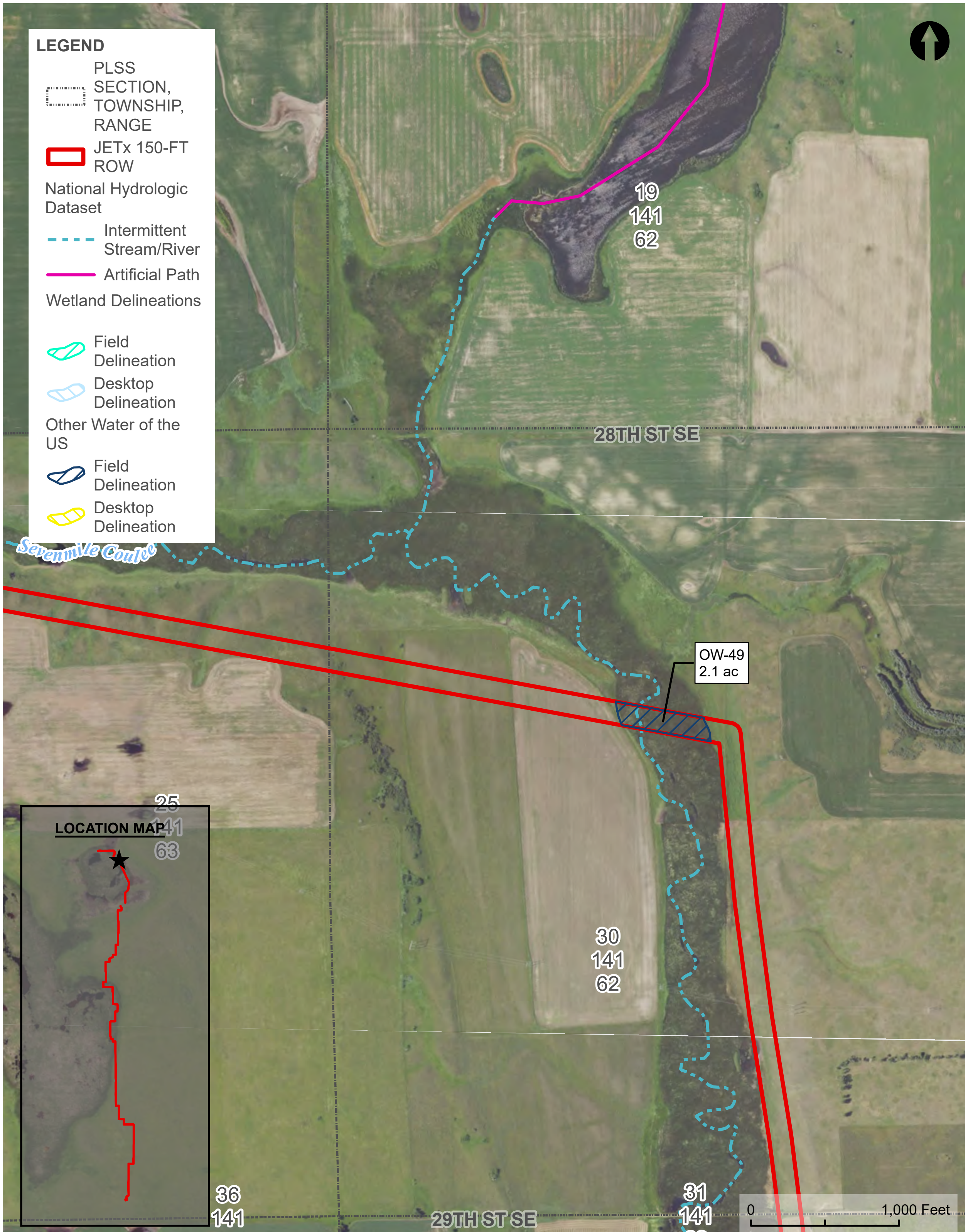
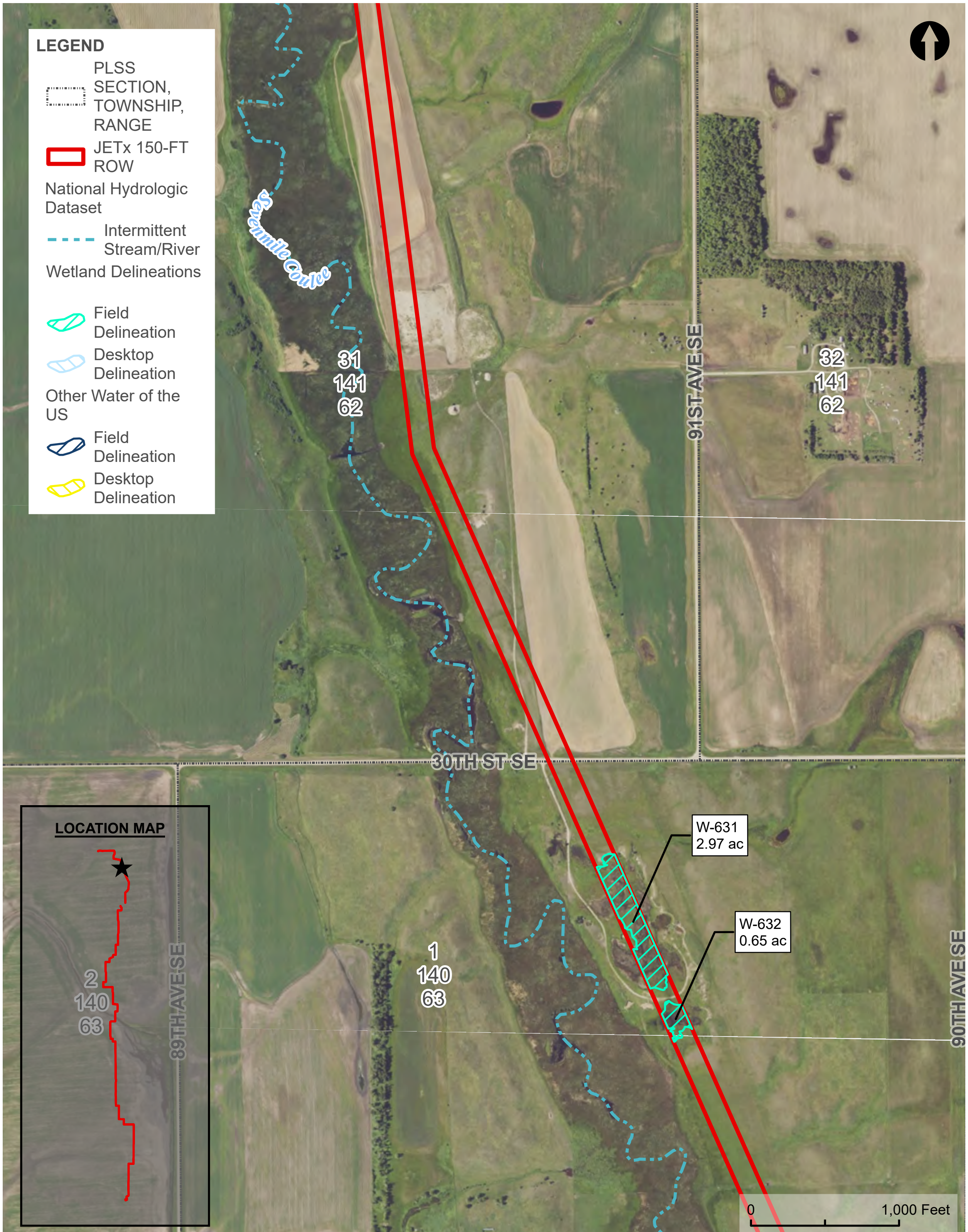


DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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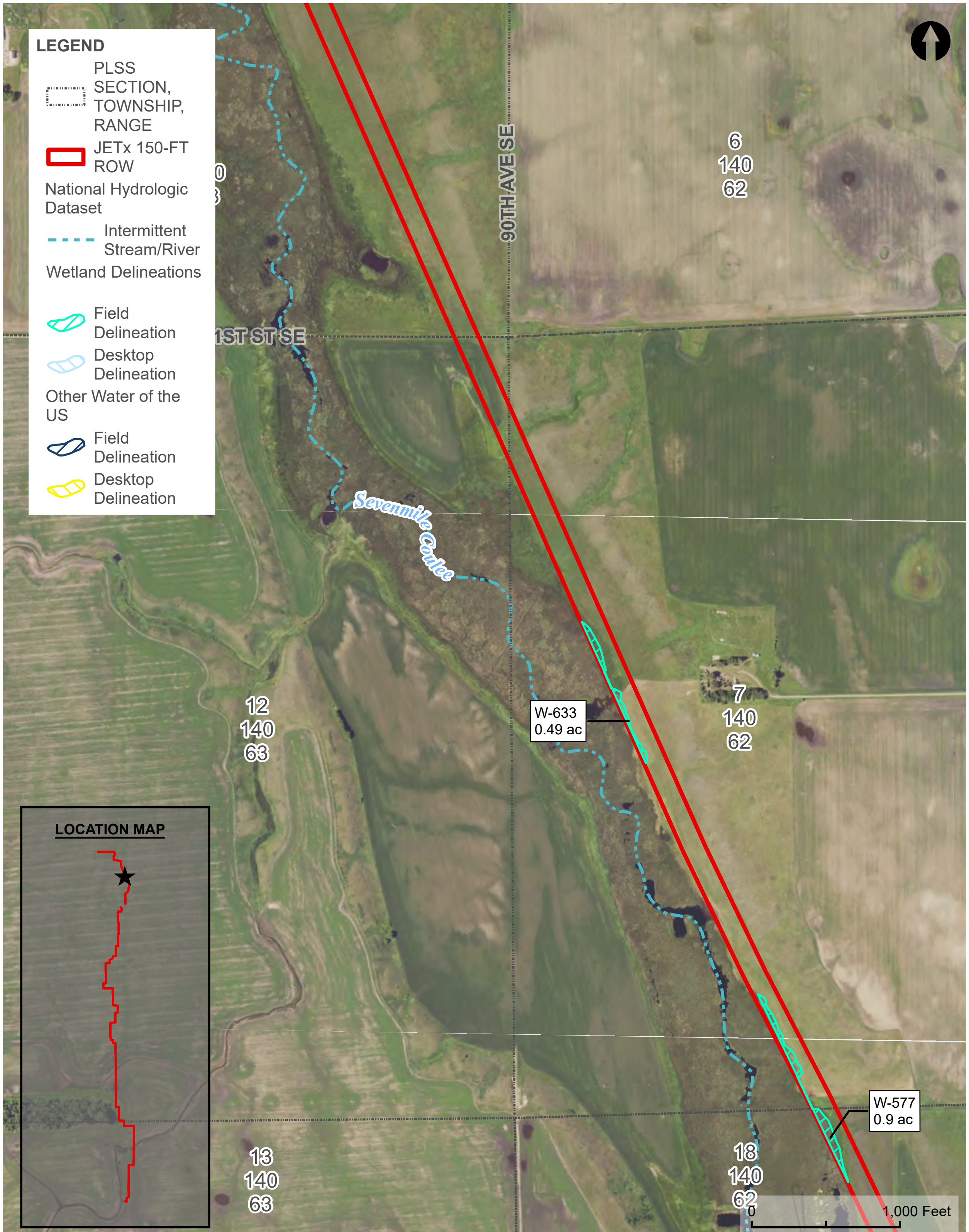

JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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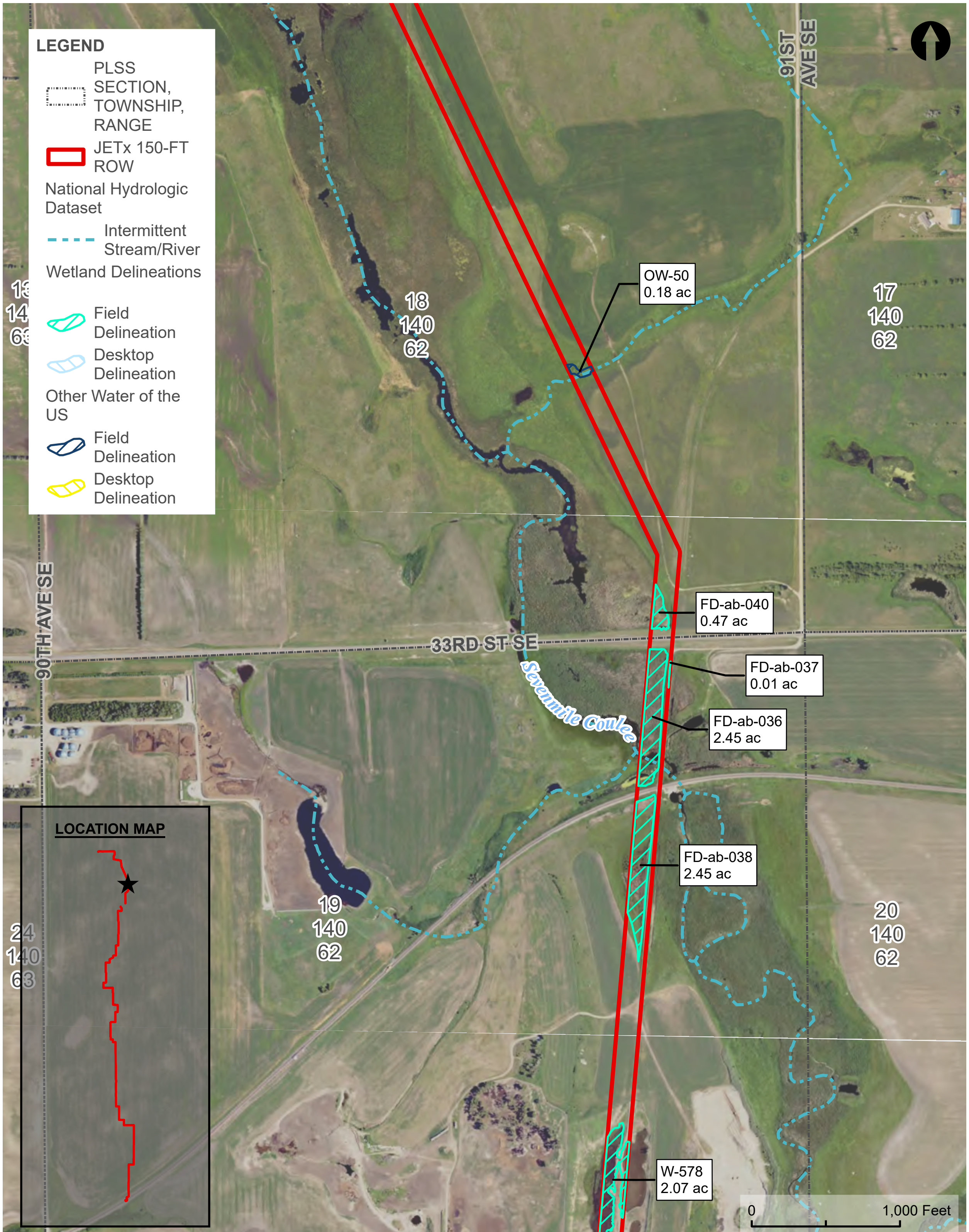

JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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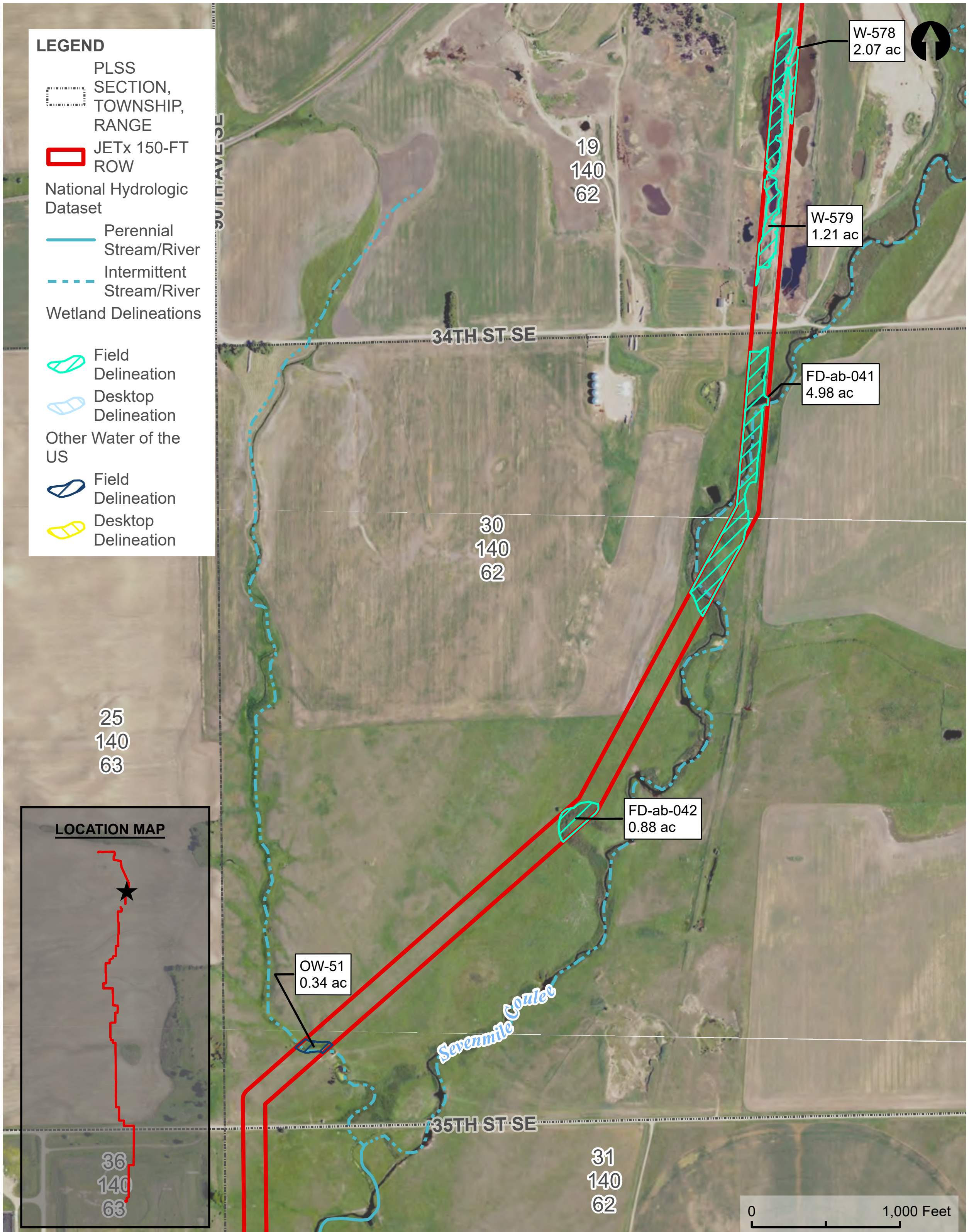
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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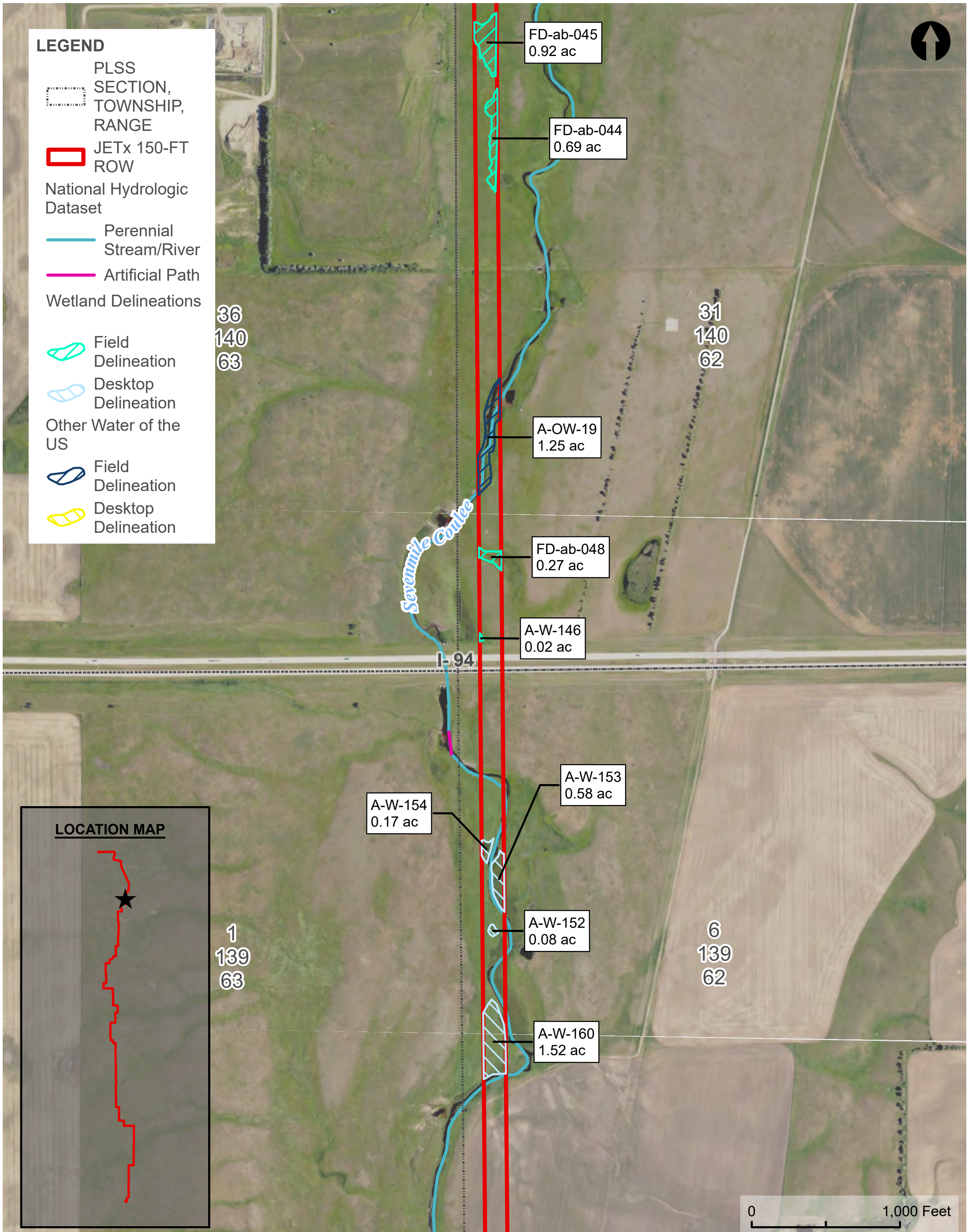
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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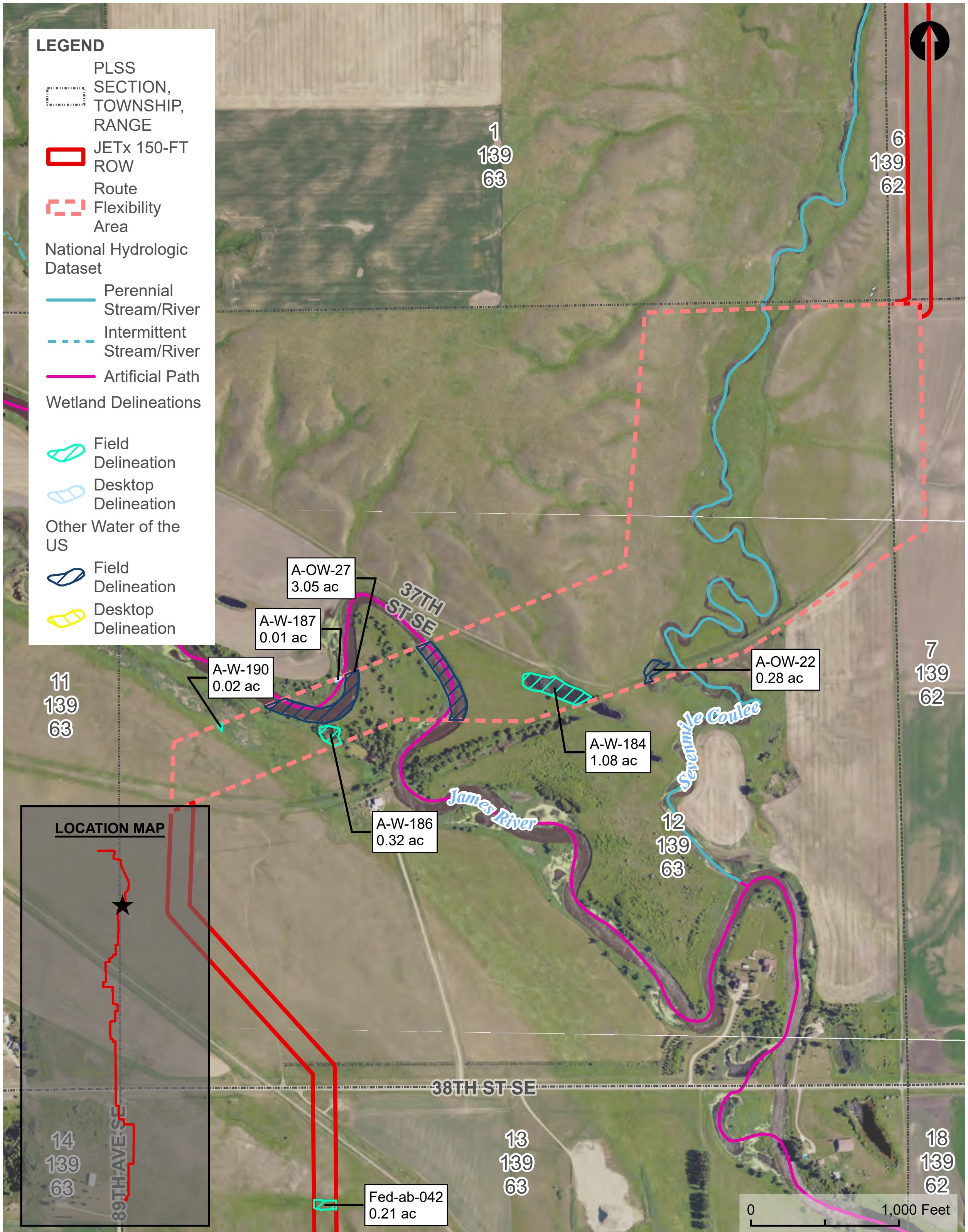

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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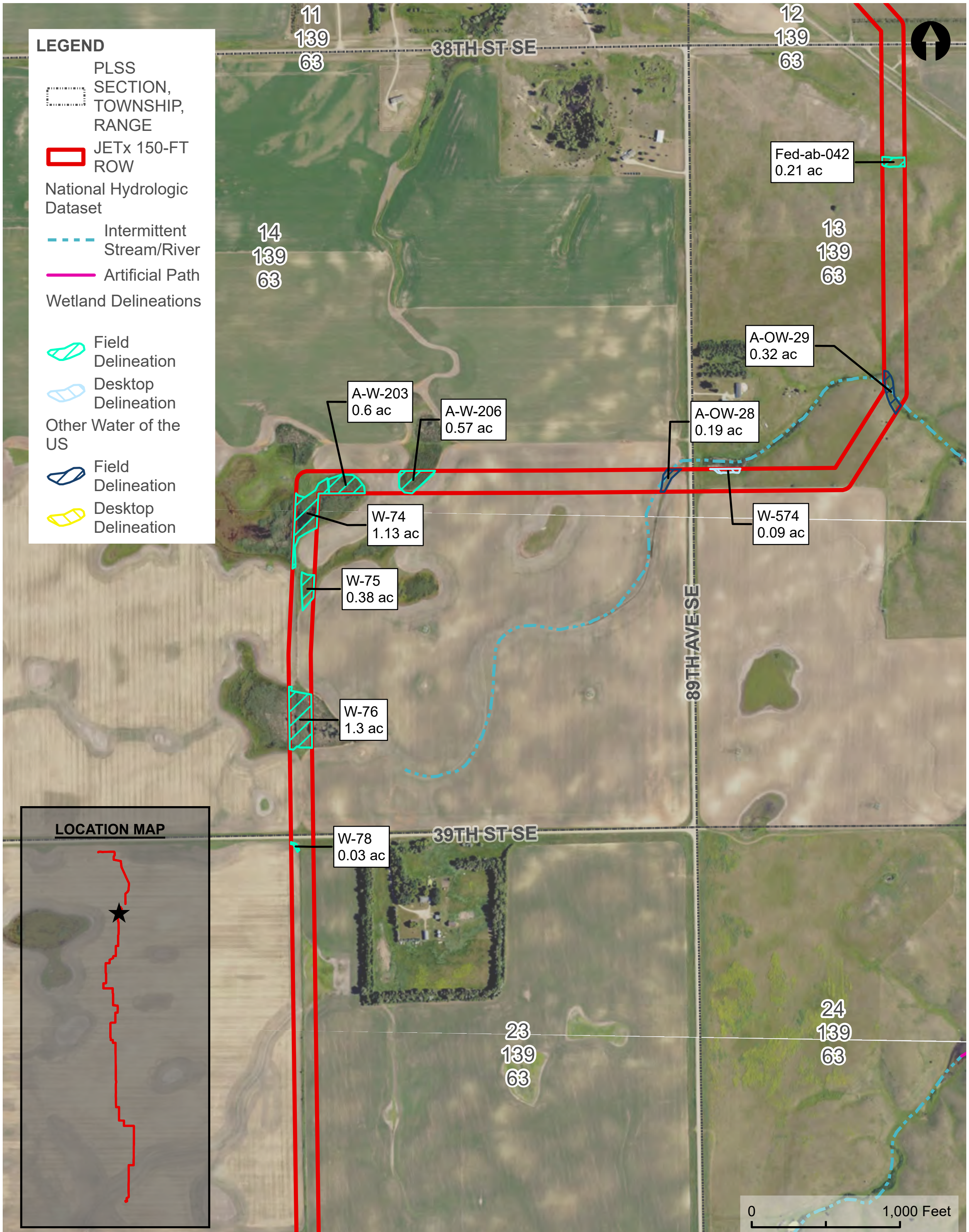
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

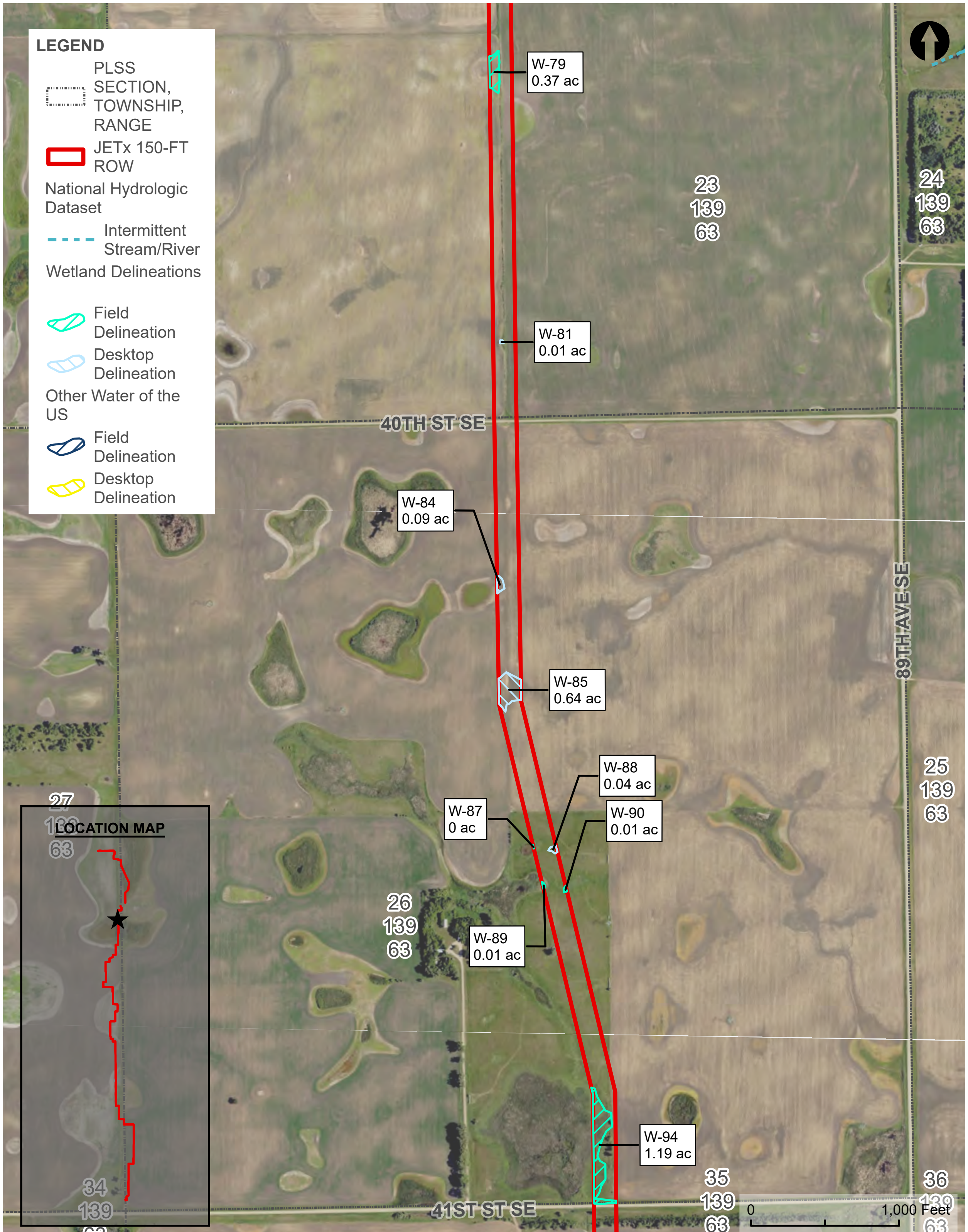


DELINEATED AQUATIC RESOURCES MAP

FIGURE

PAGE 12 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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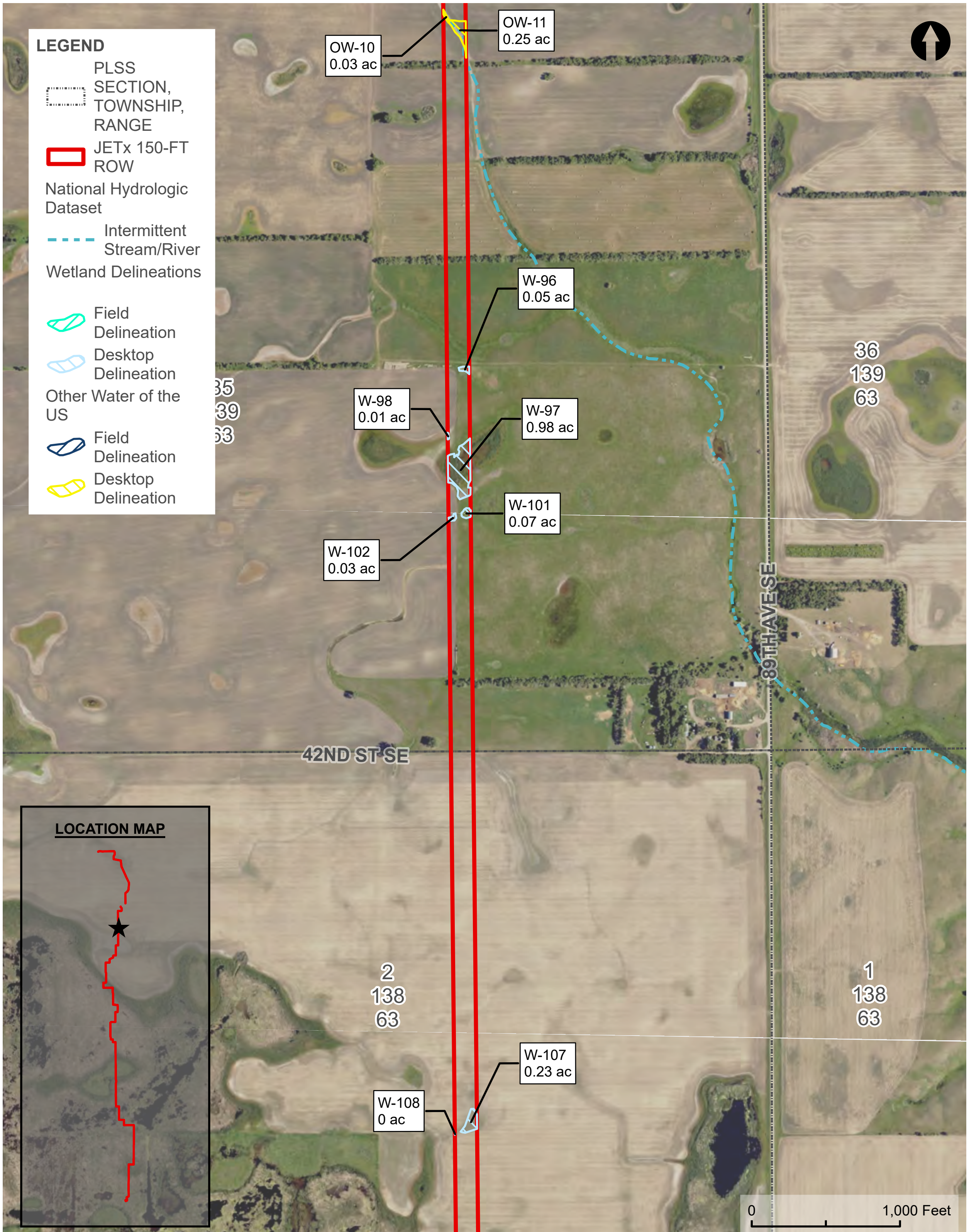
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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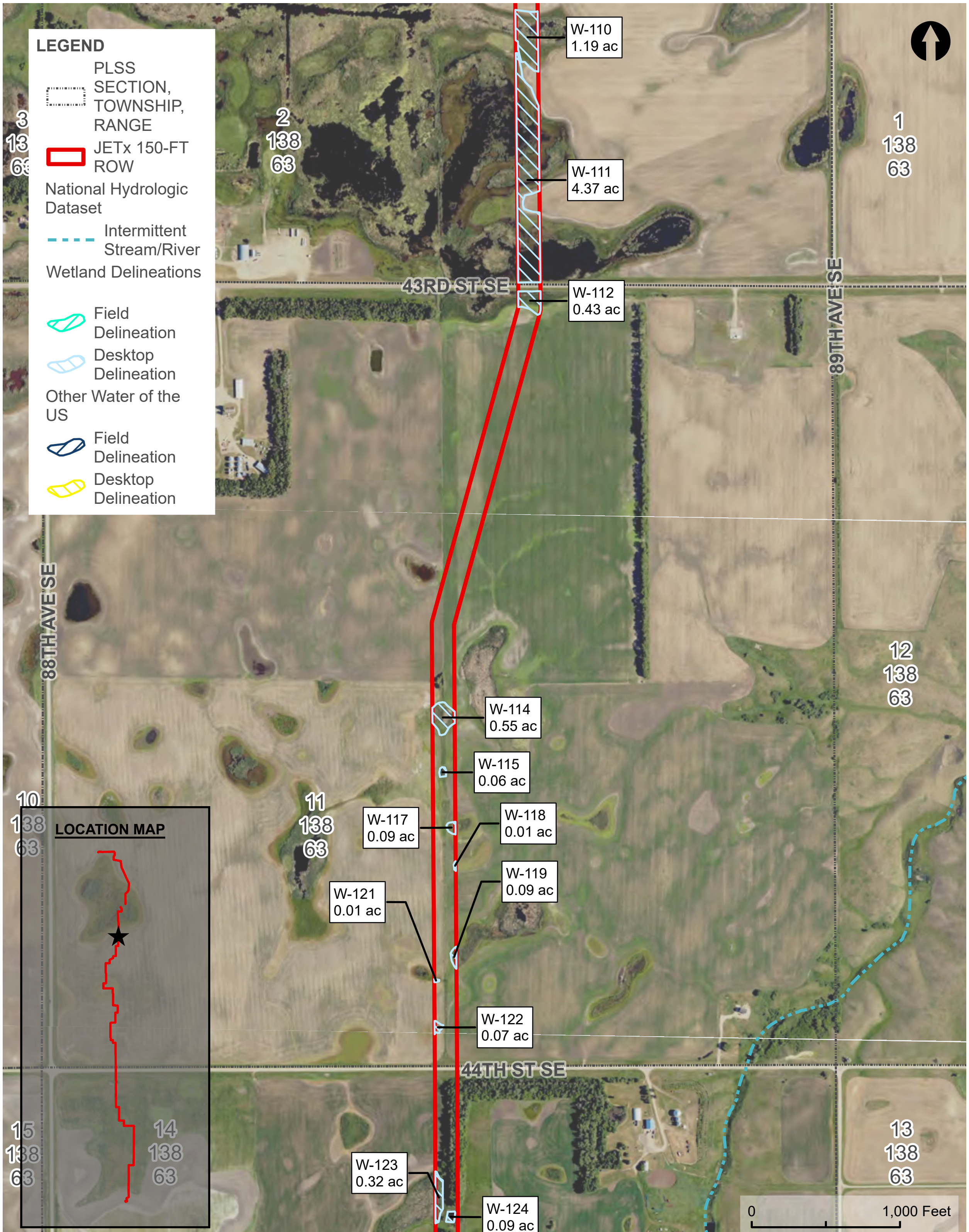
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



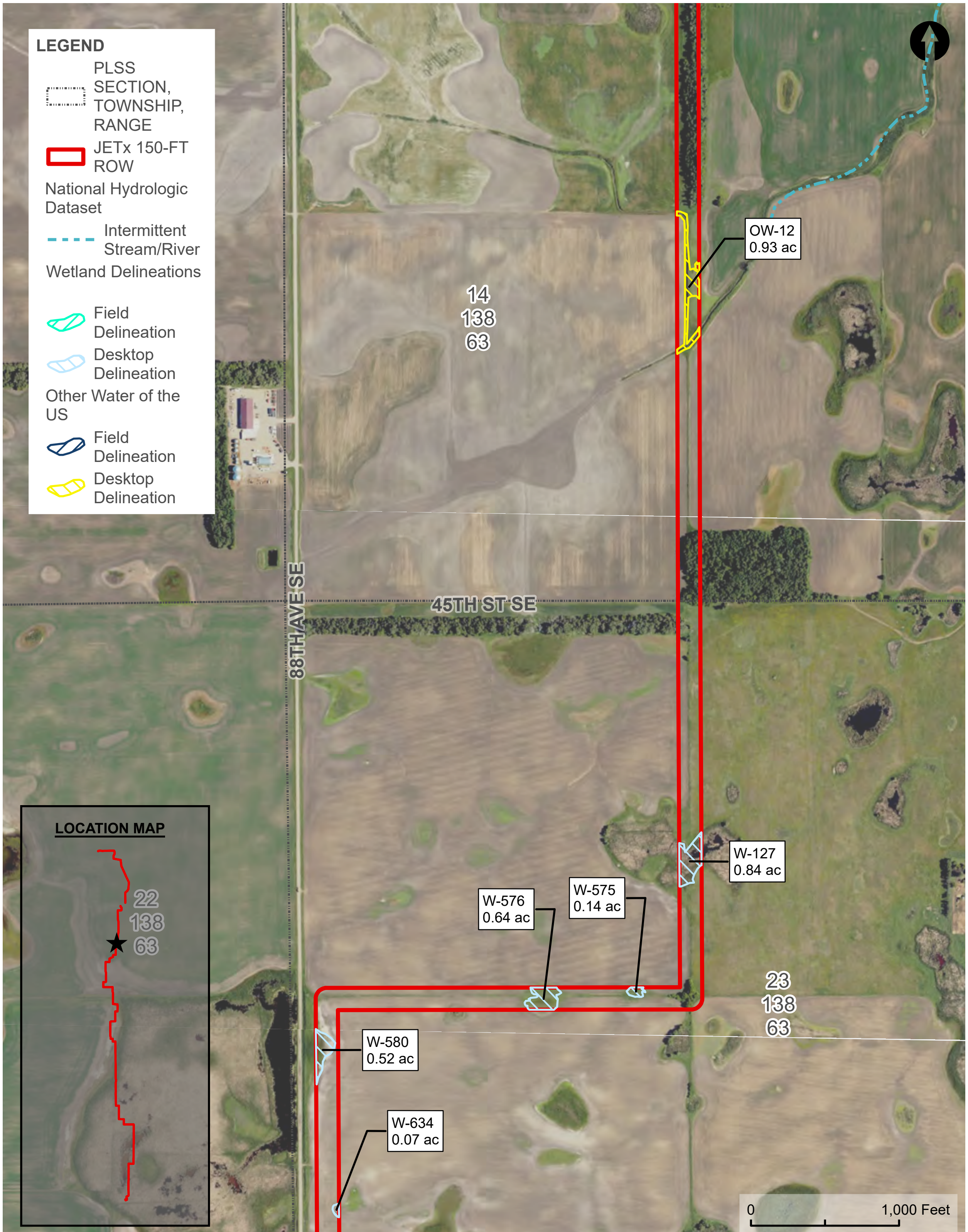
JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

PAGE 15 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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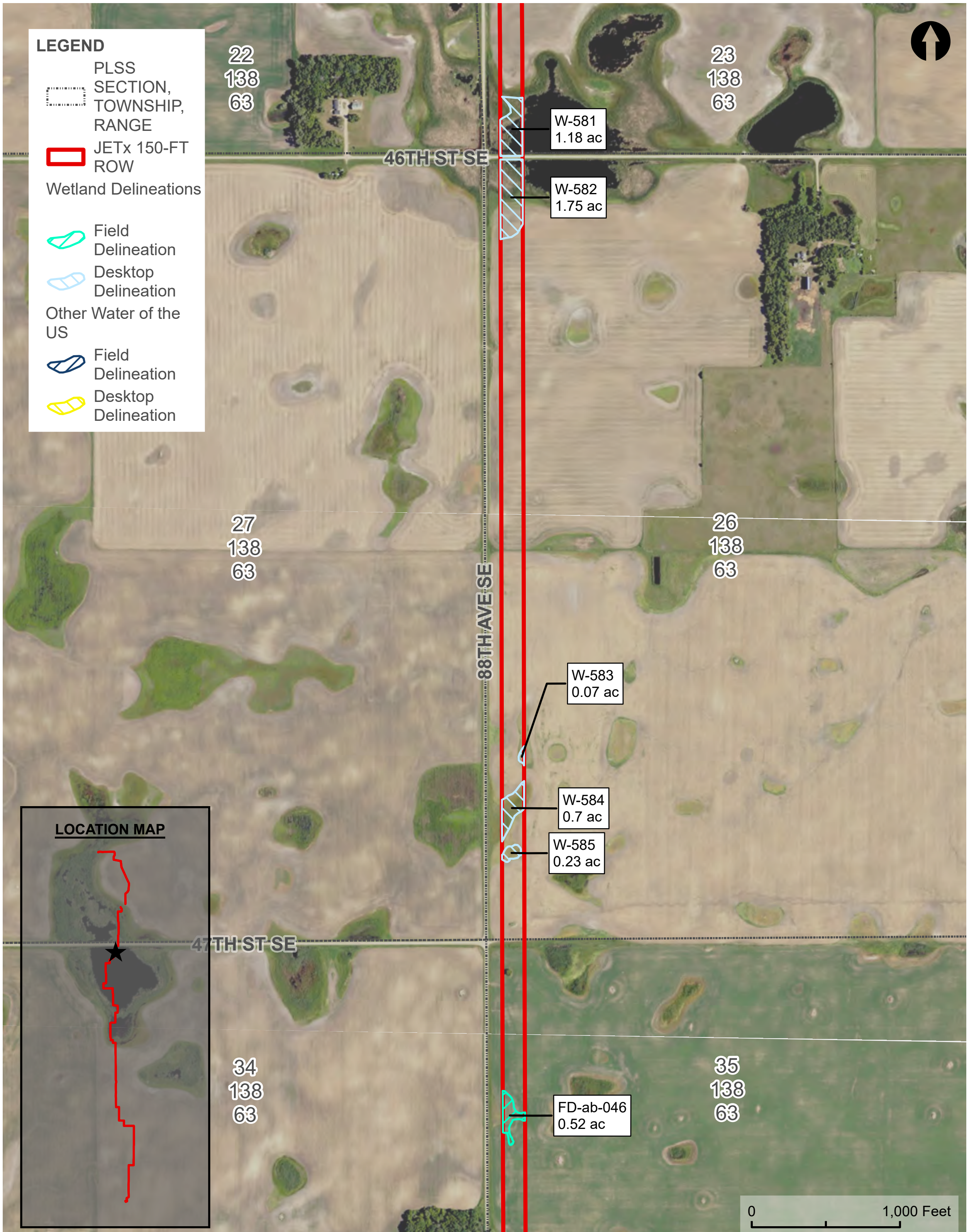
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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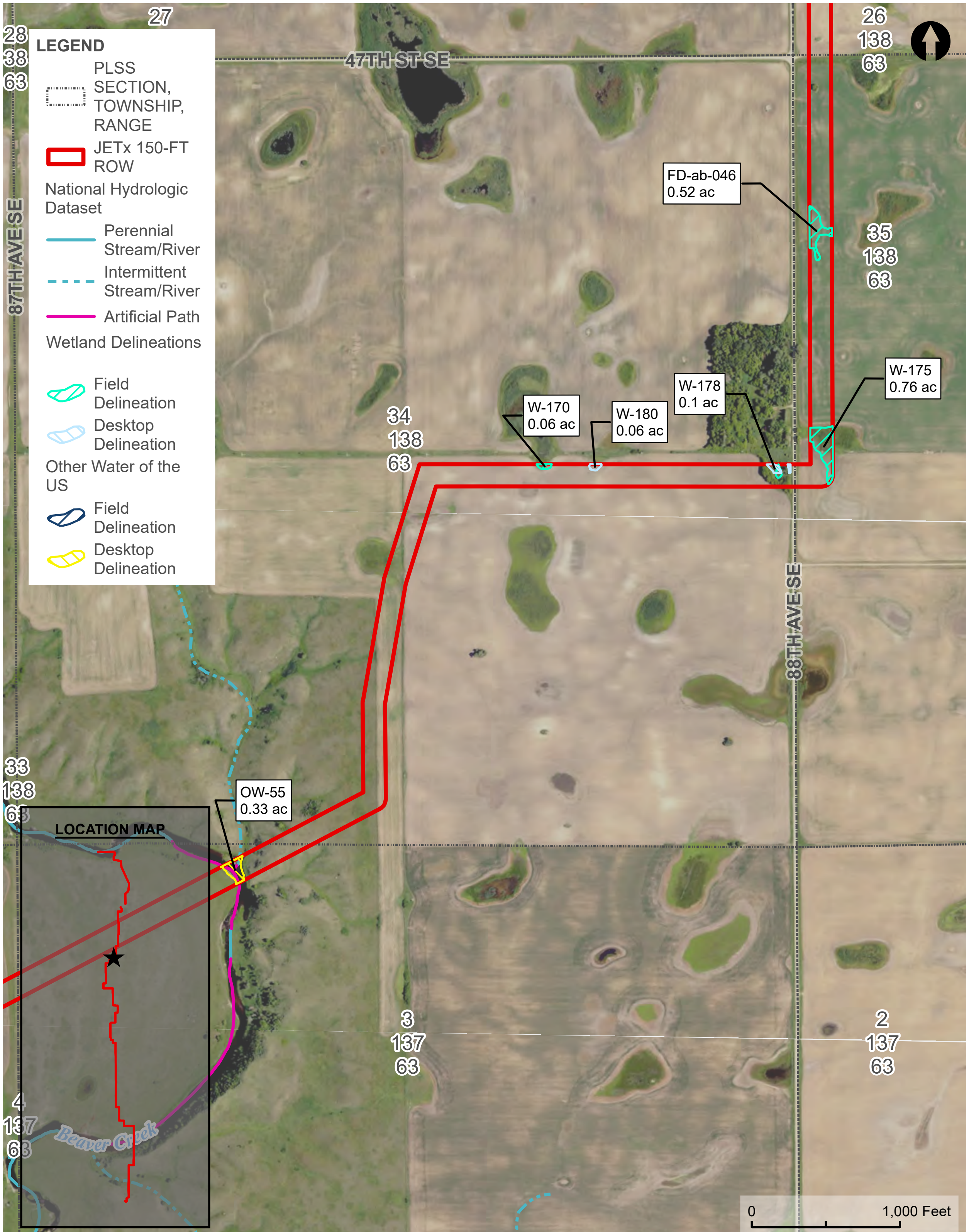
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

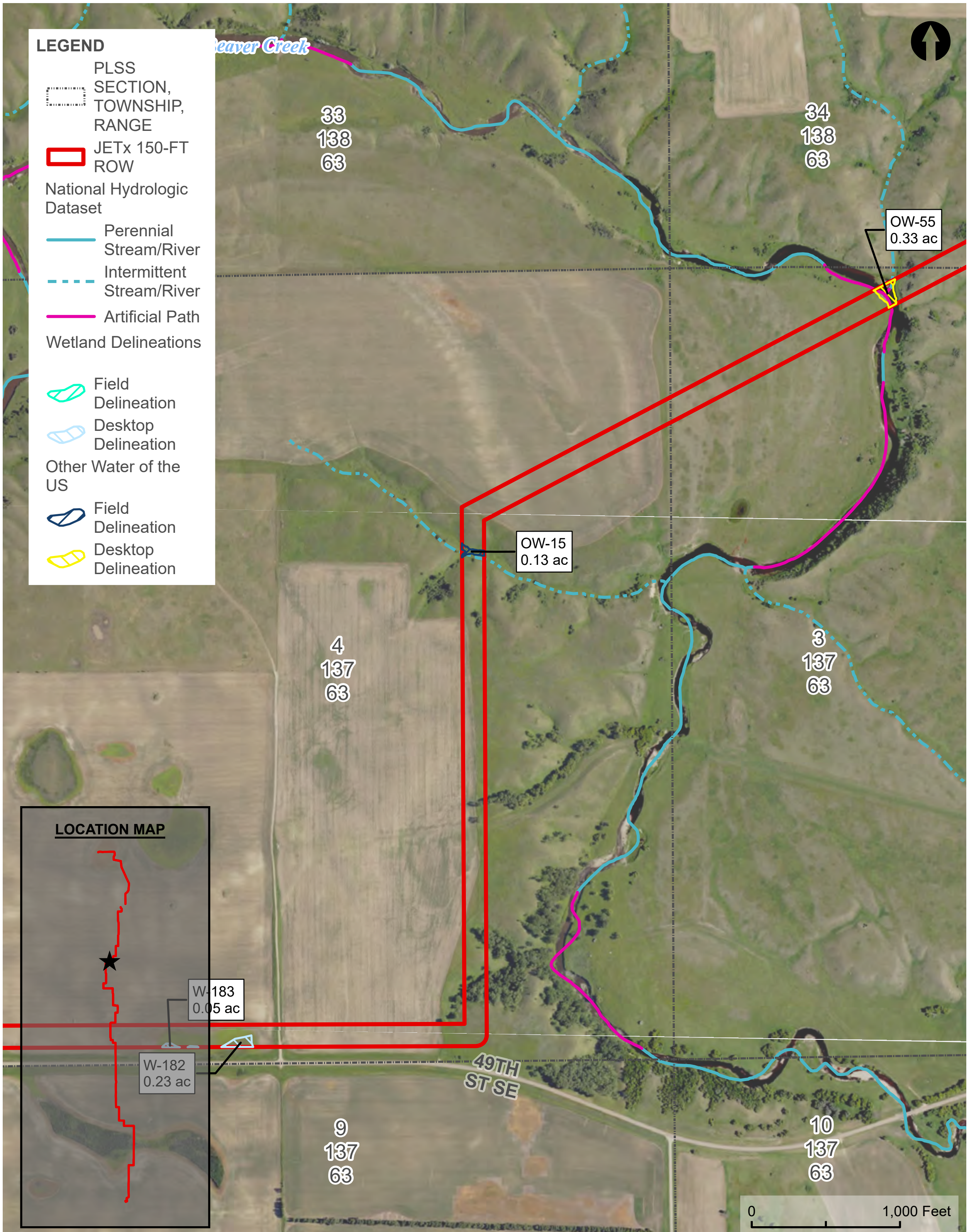


JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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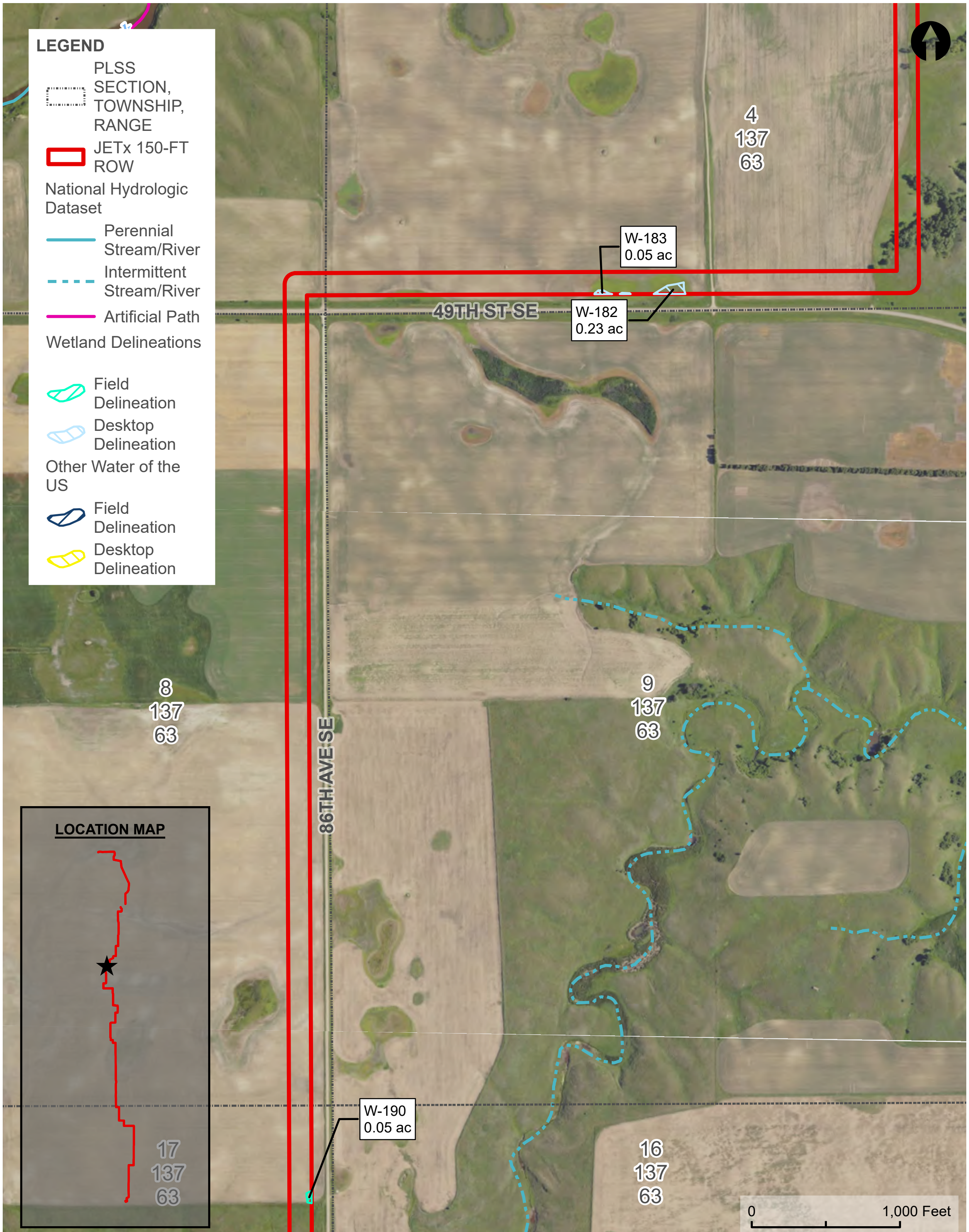

JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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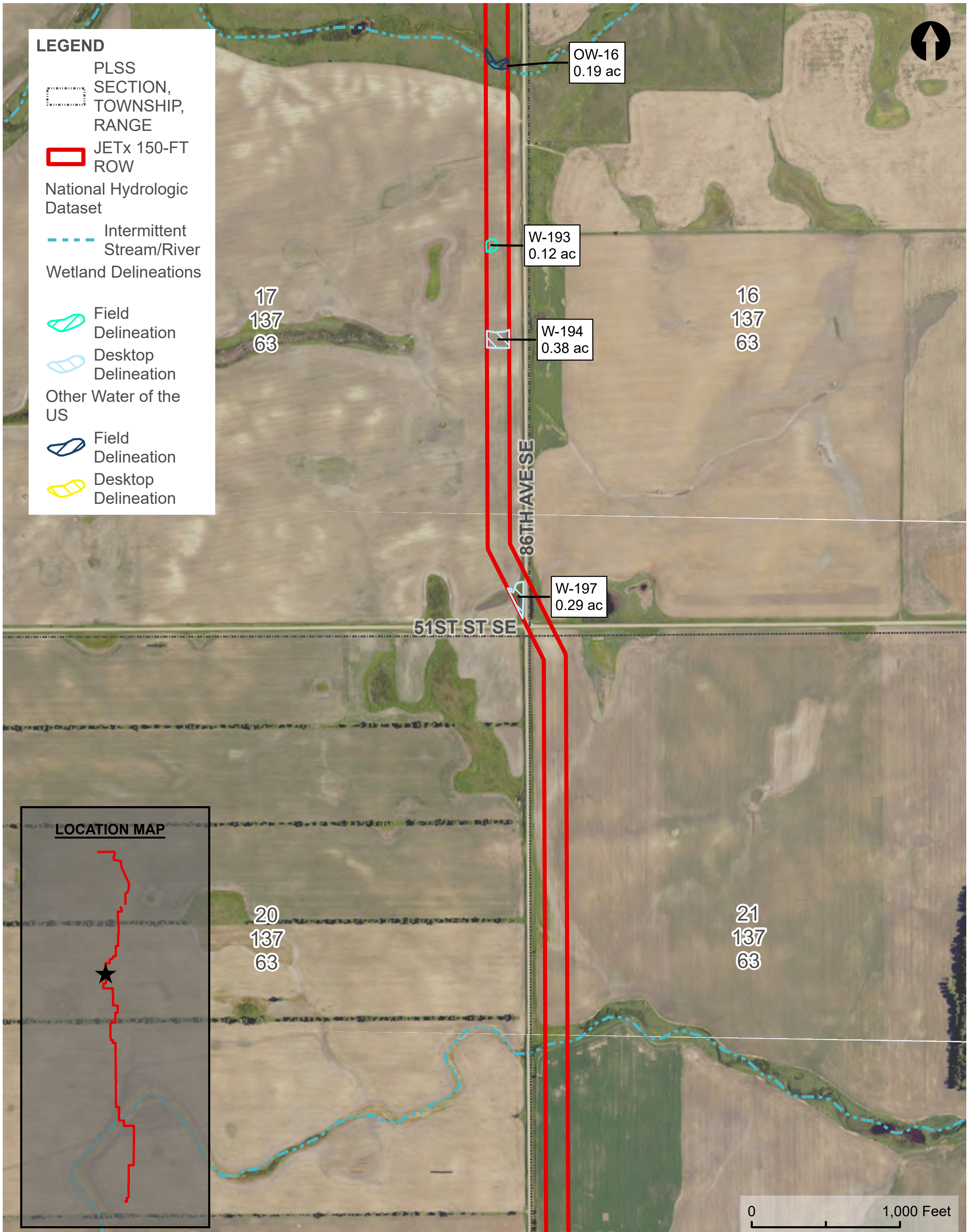
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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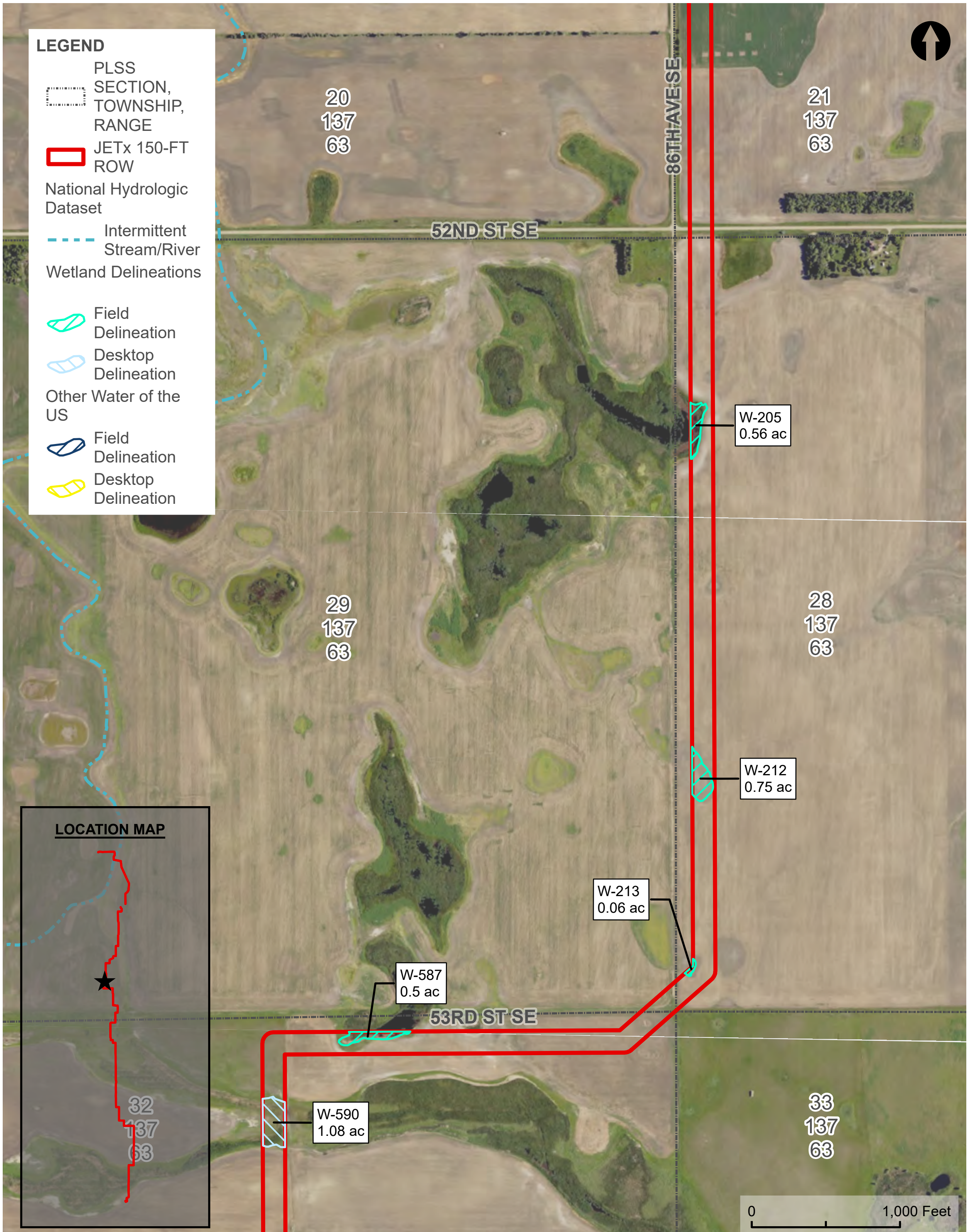
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

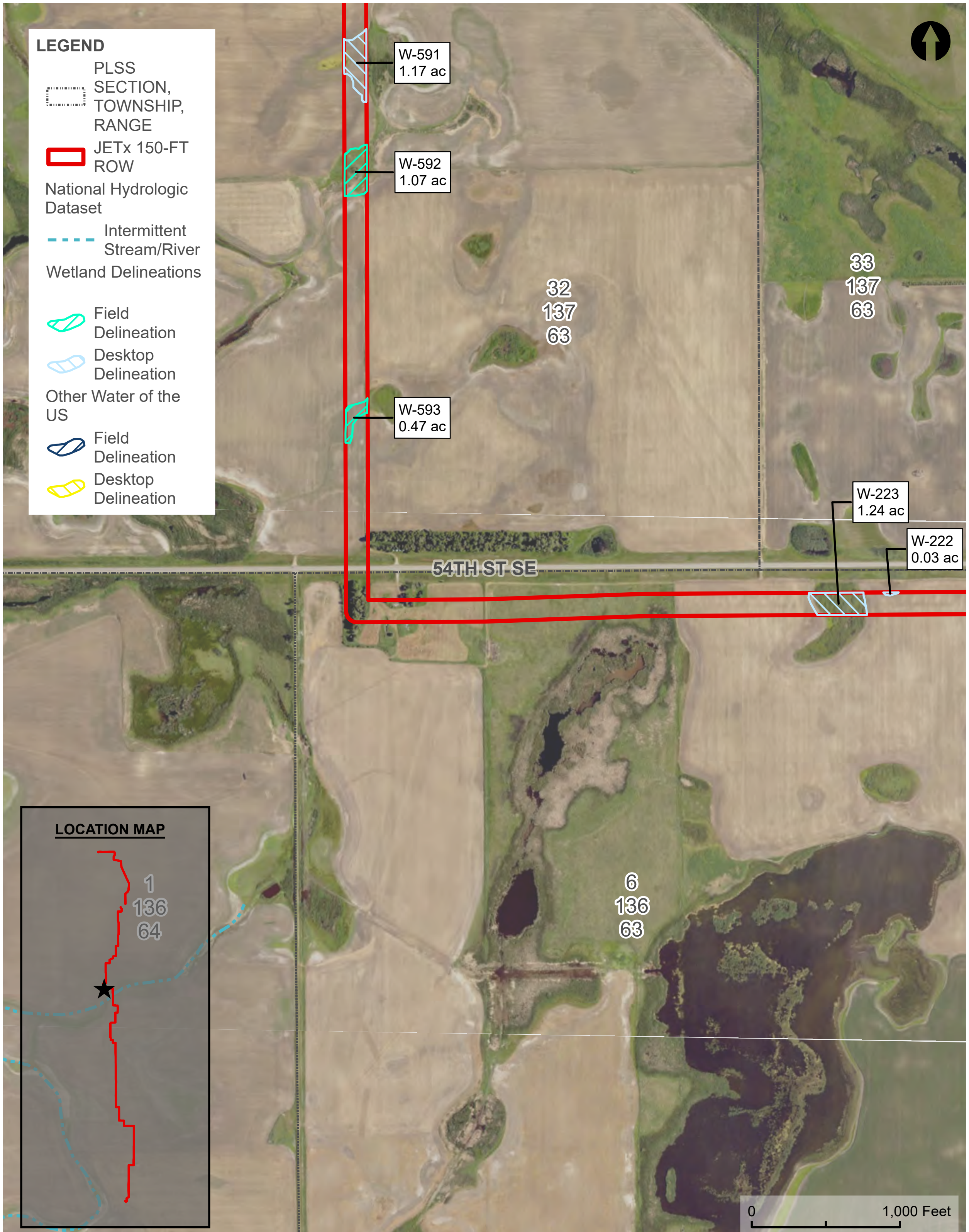


JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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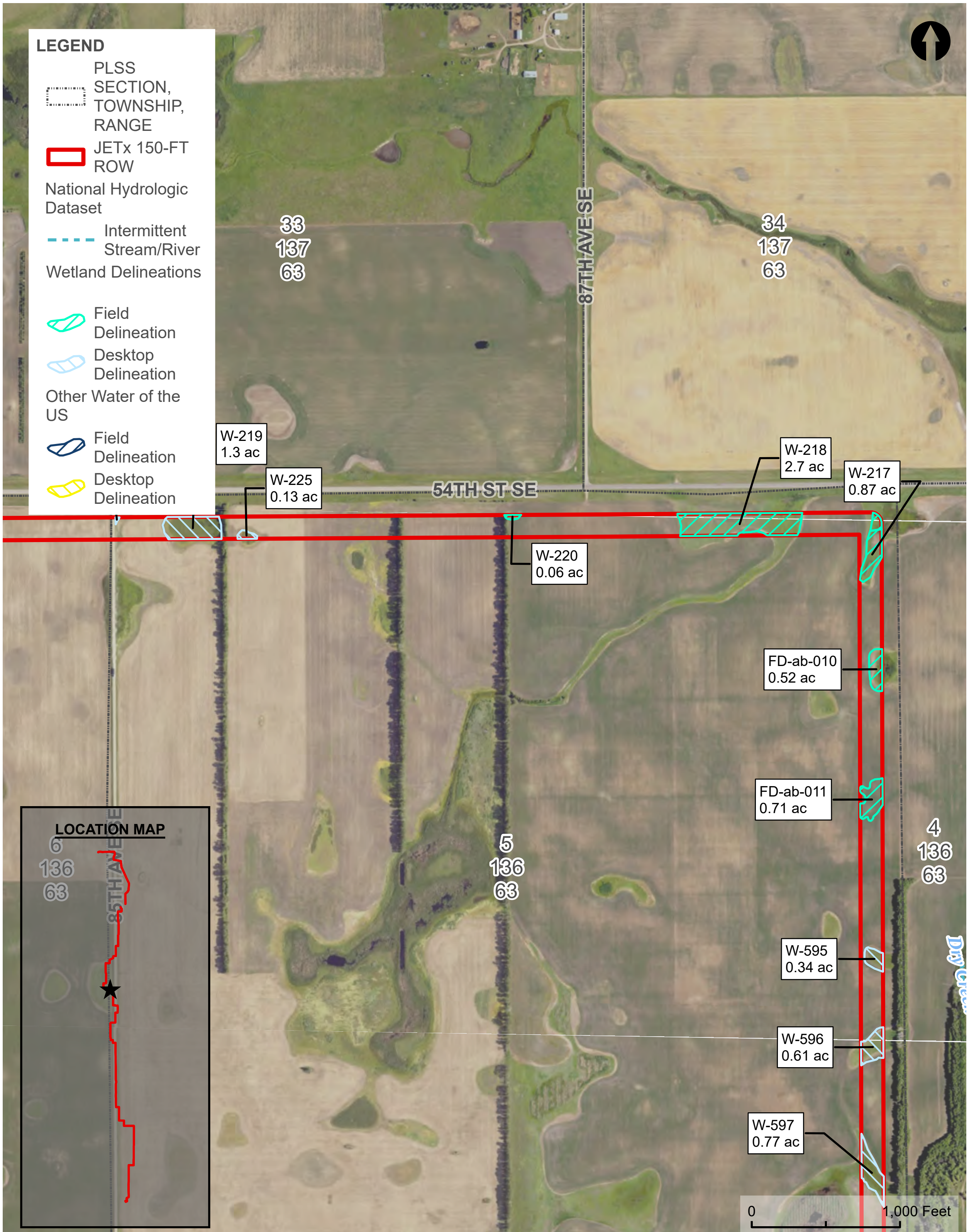
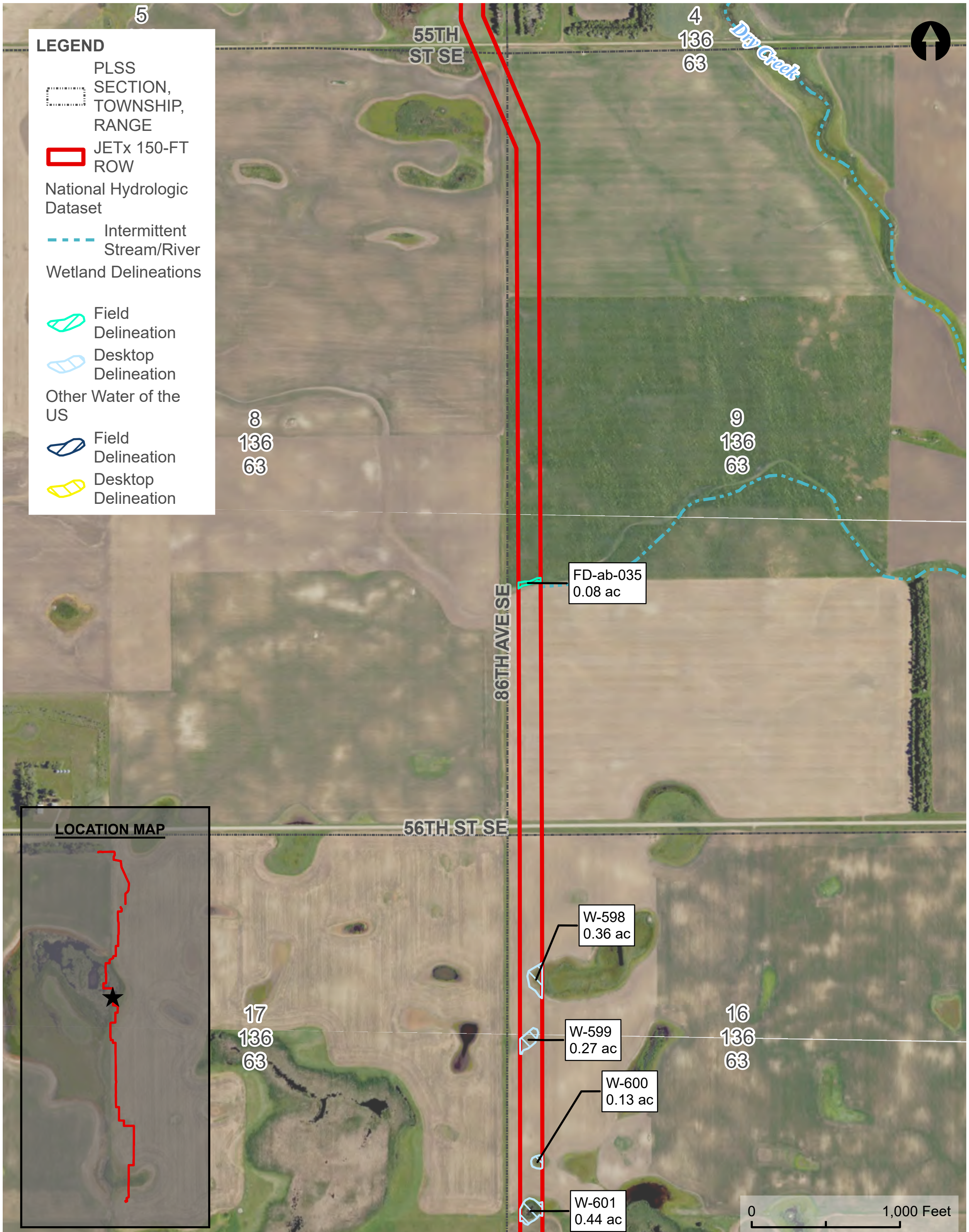
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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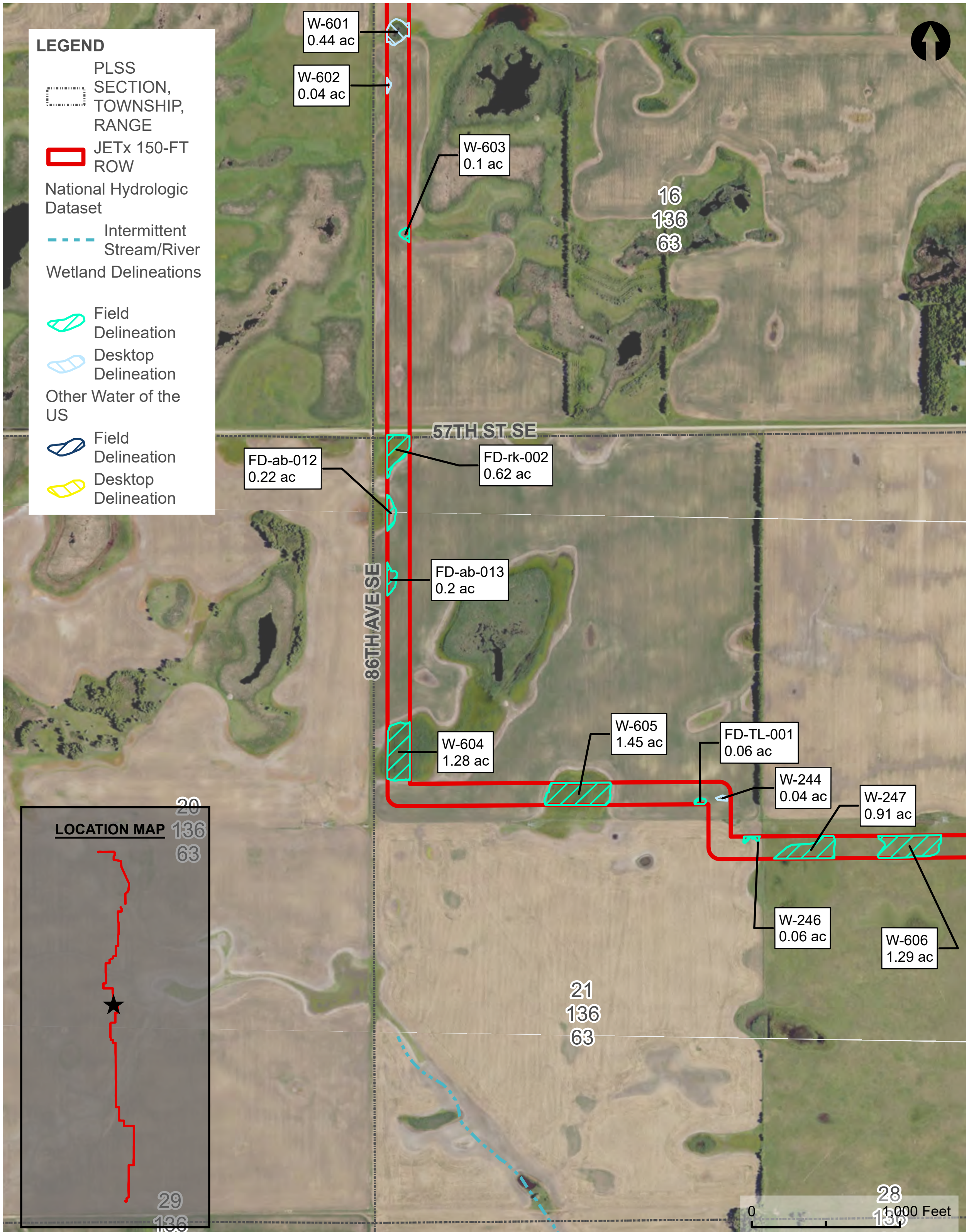
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

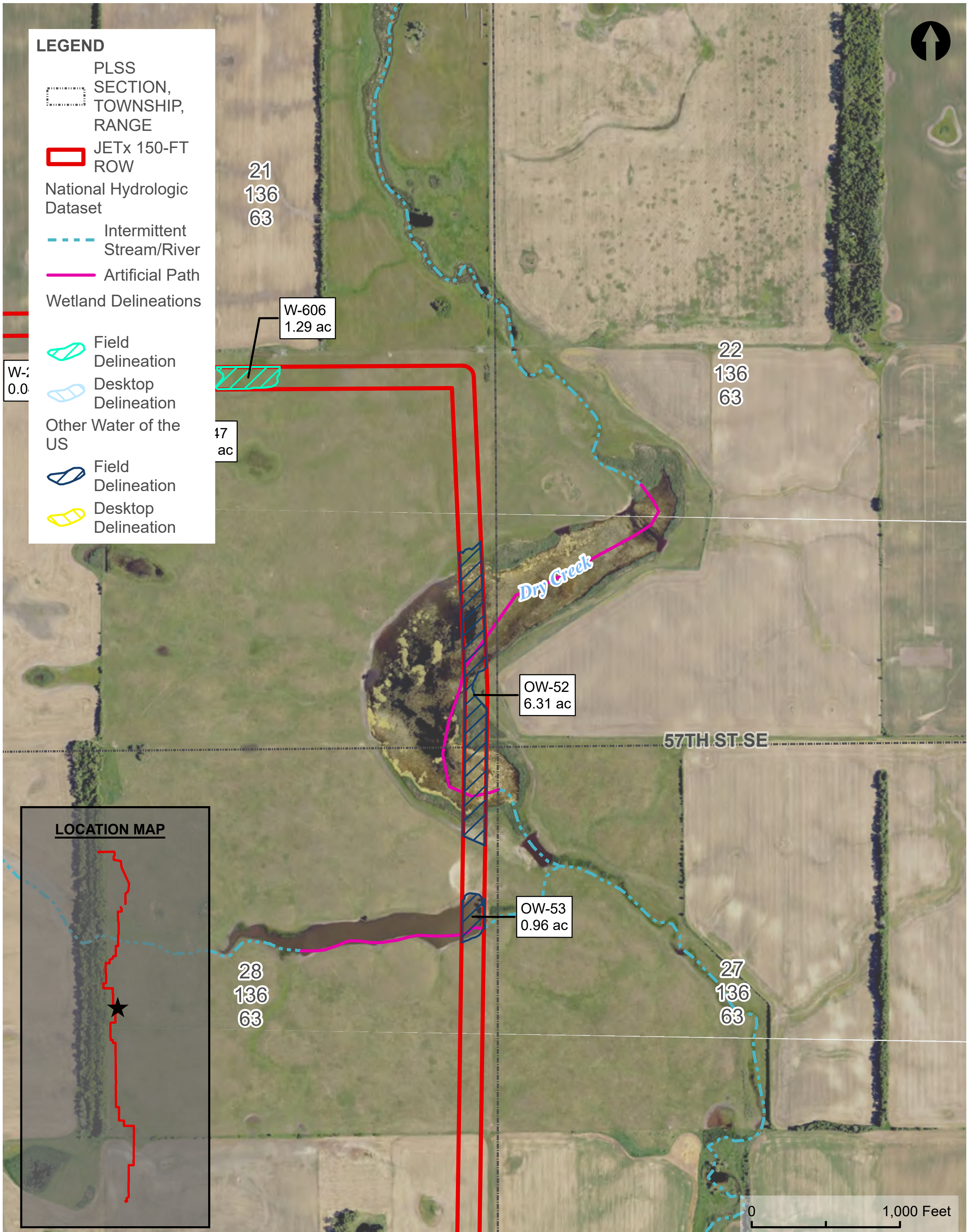


JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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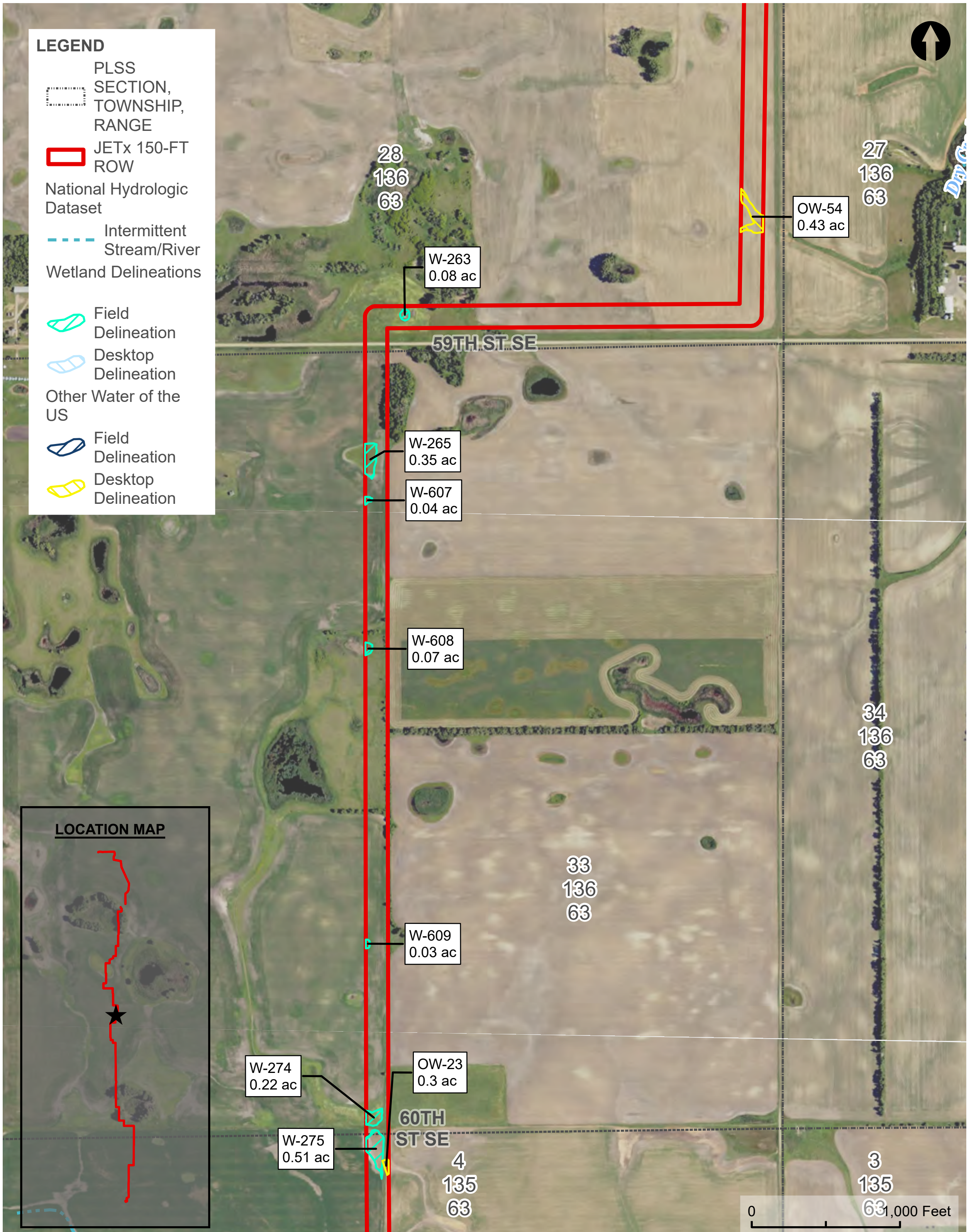
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP
FIGURE
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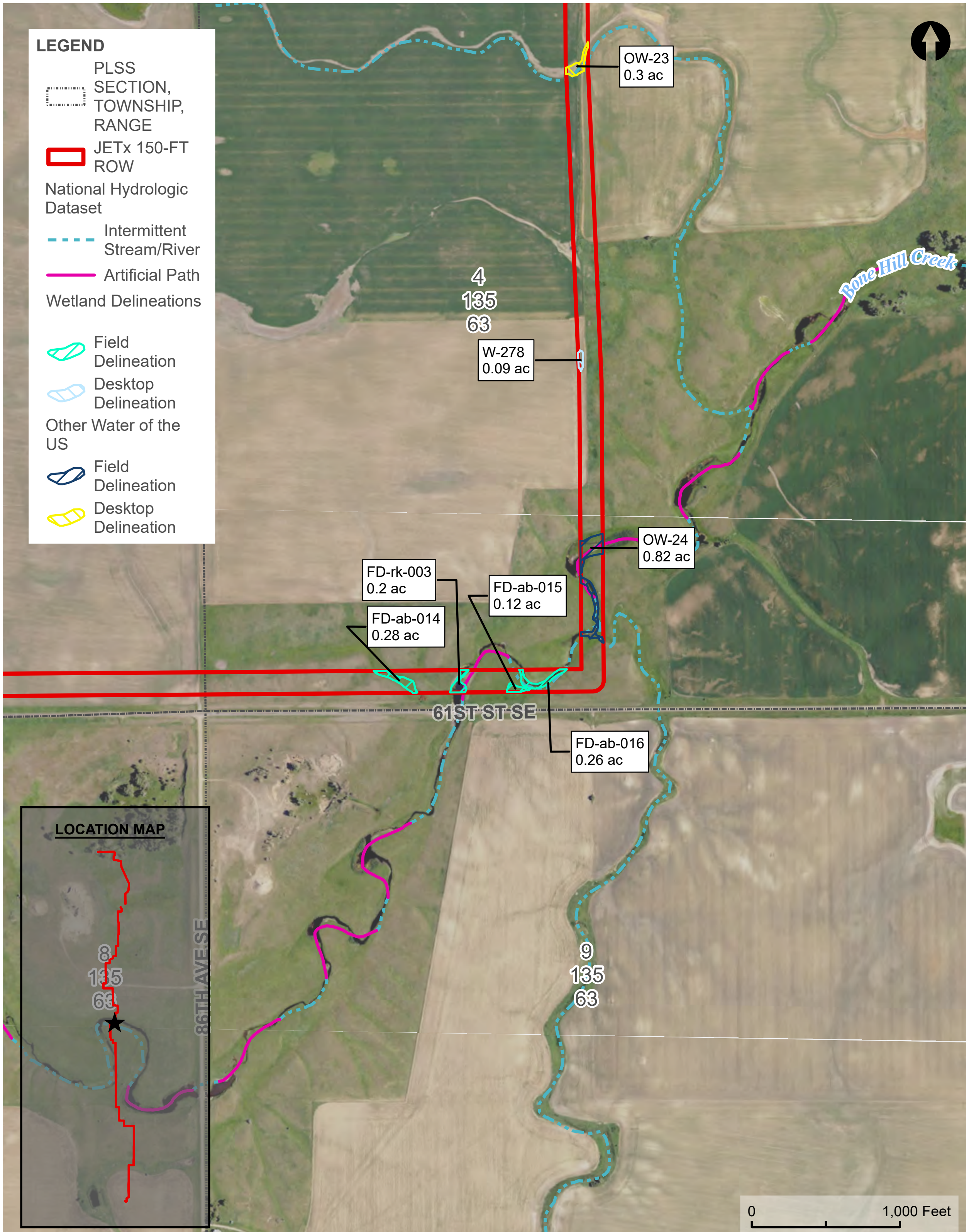
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



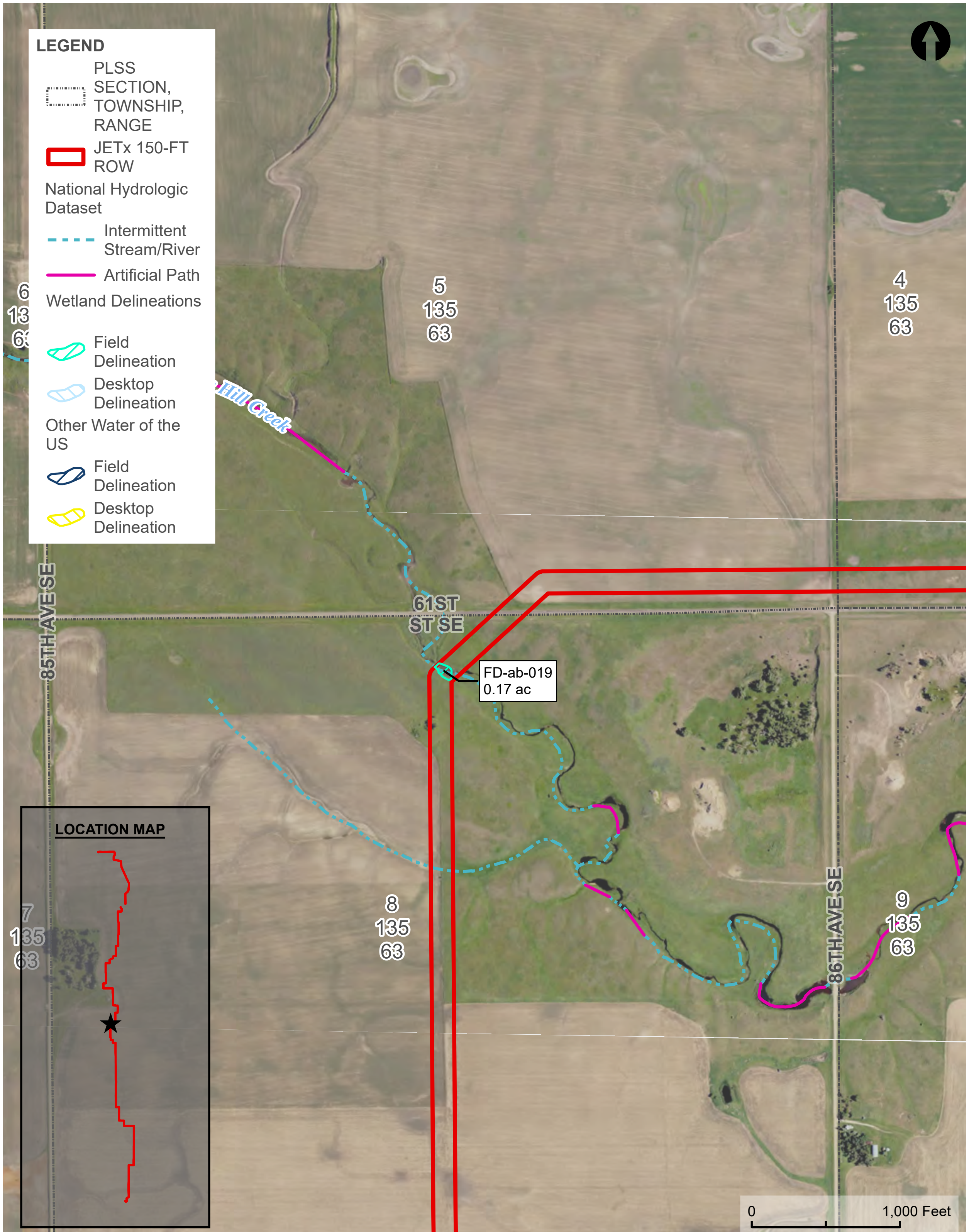
JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

PAGE 29 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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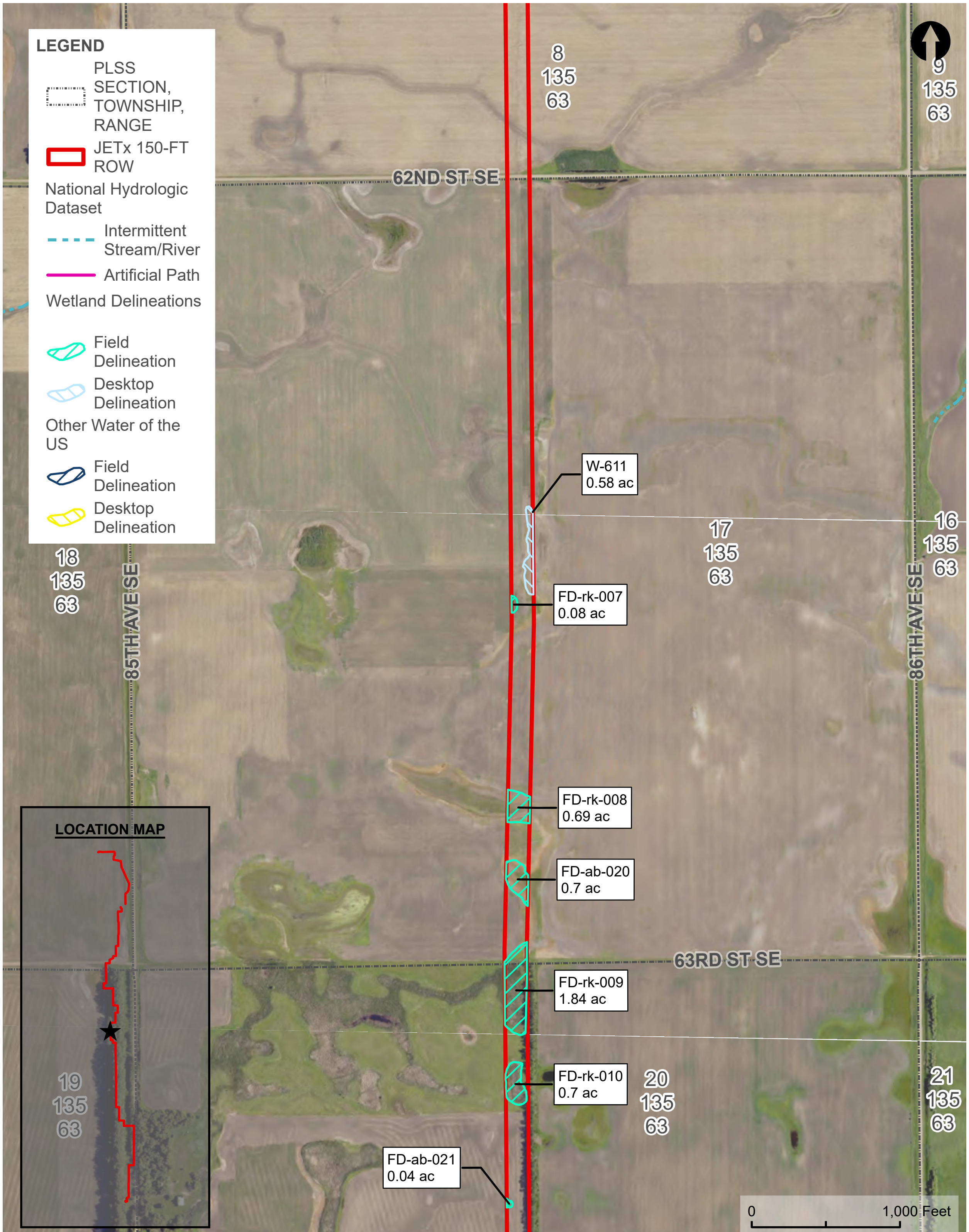
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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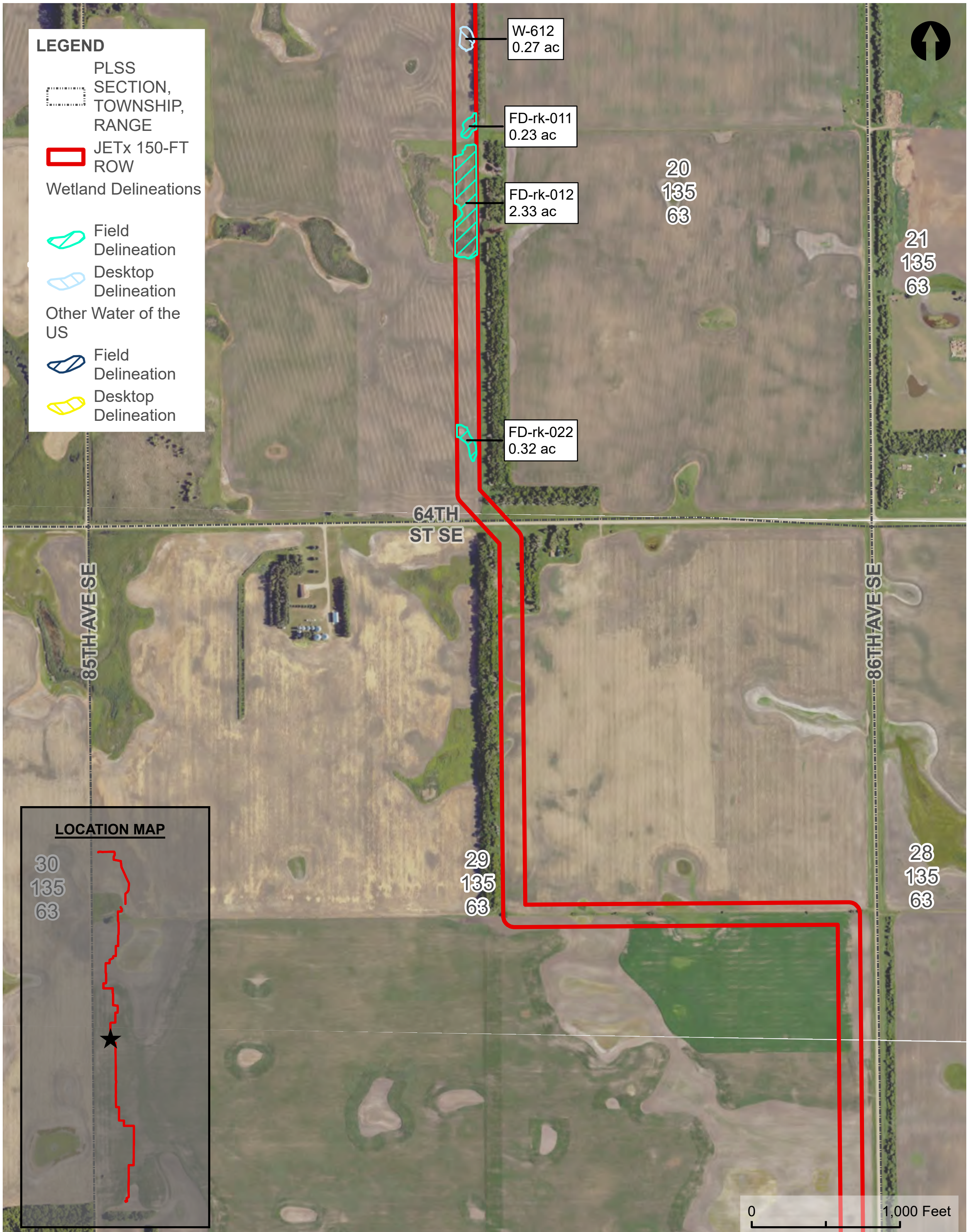

JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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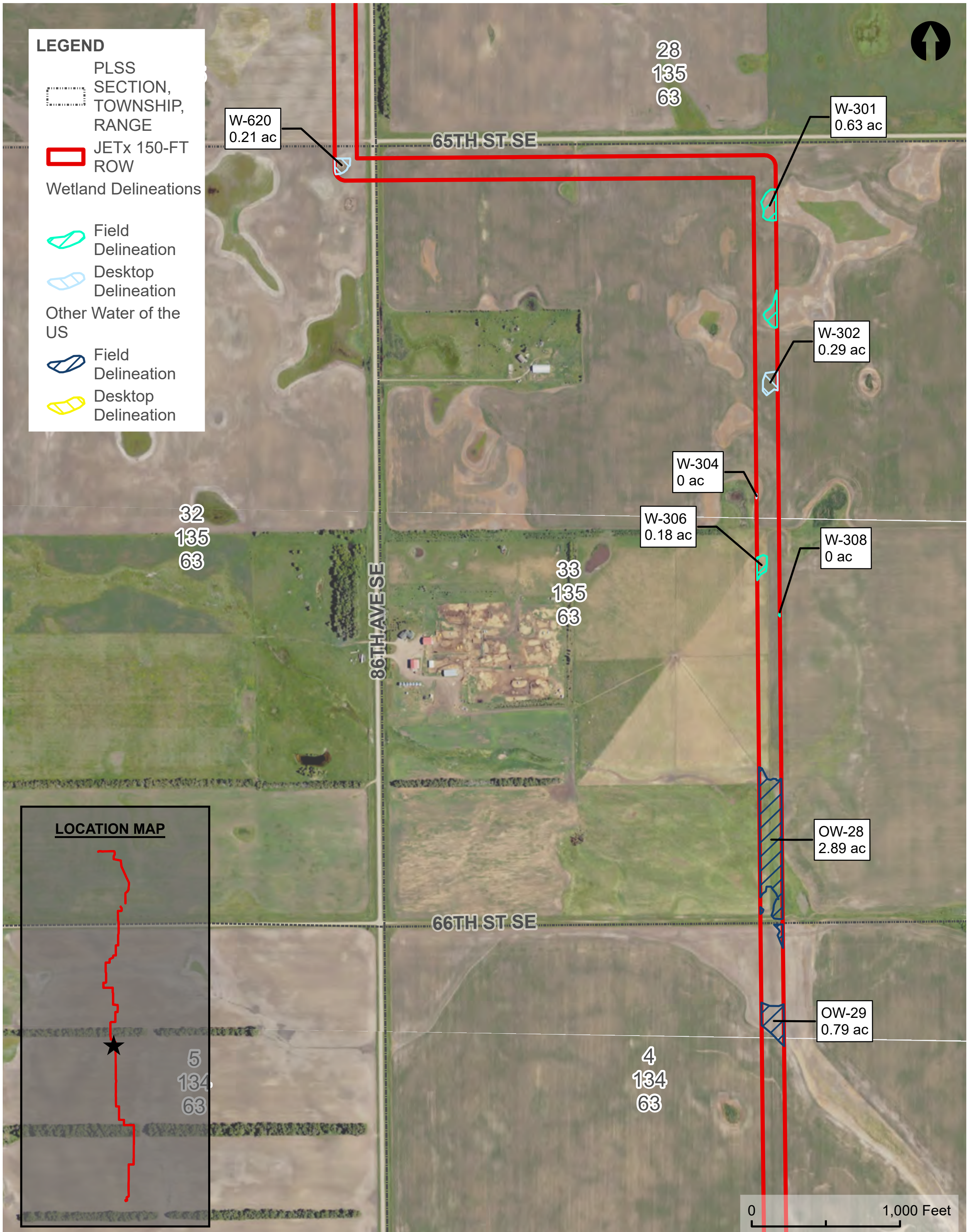
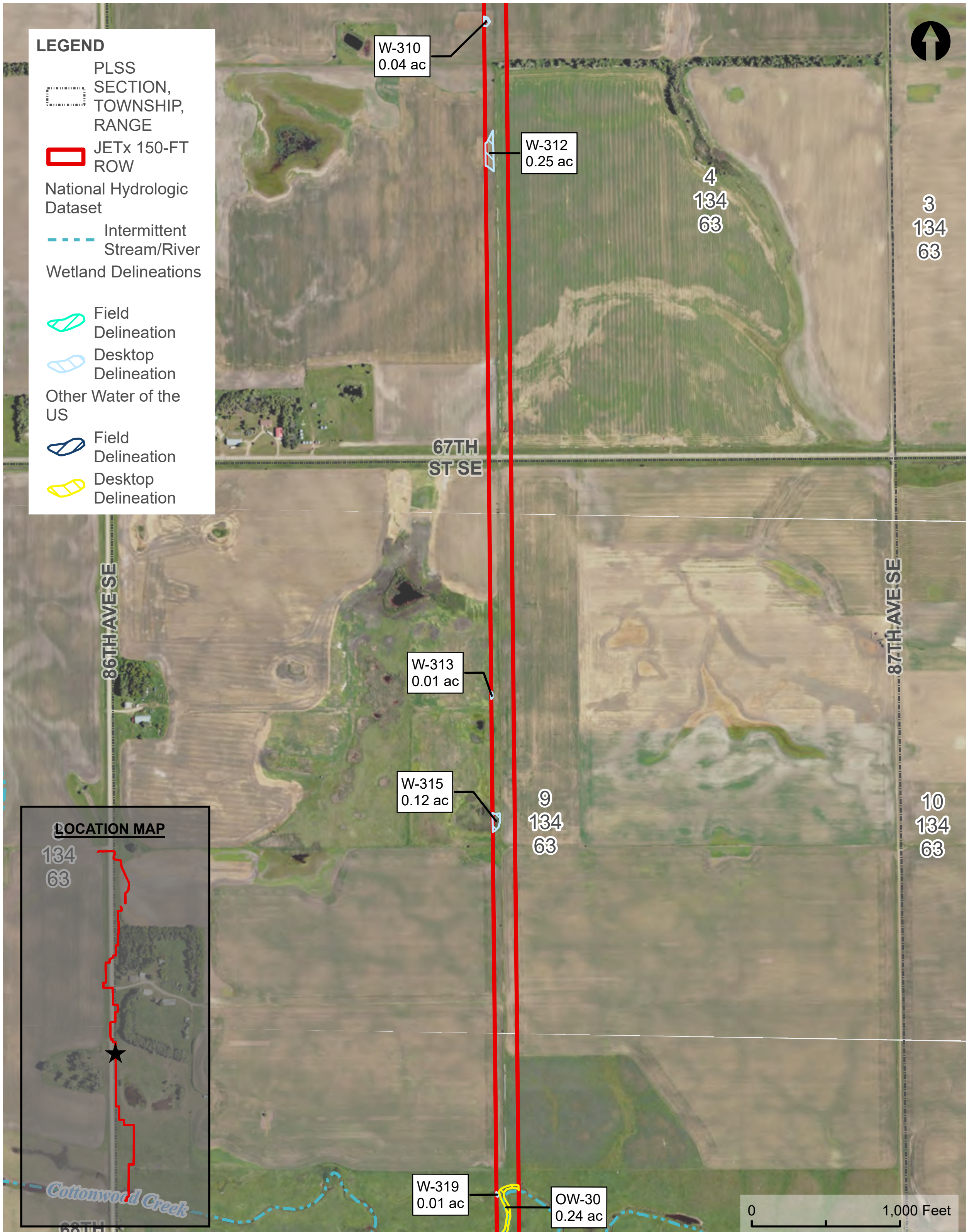
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

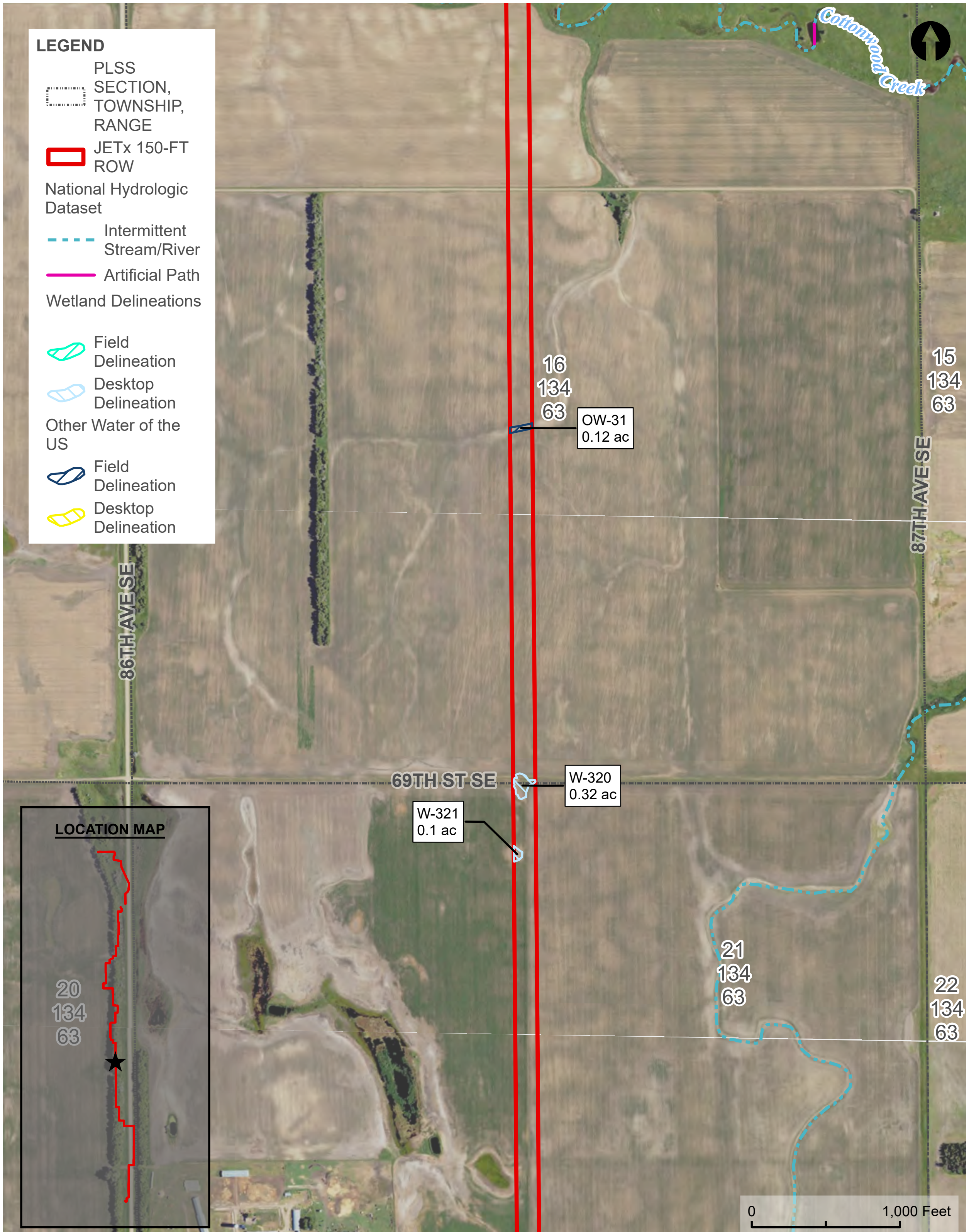
FIGURE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP
FIGURE
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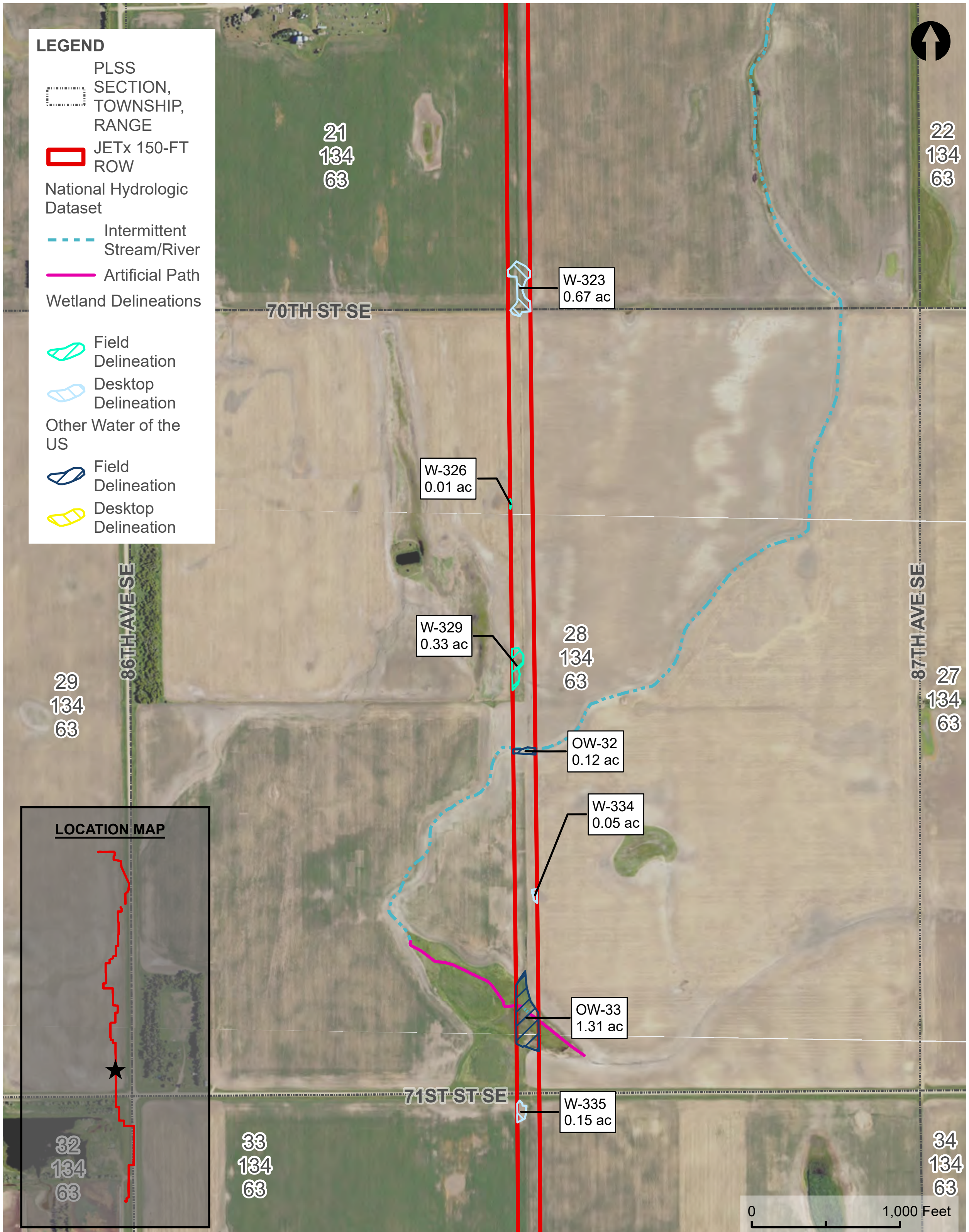
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

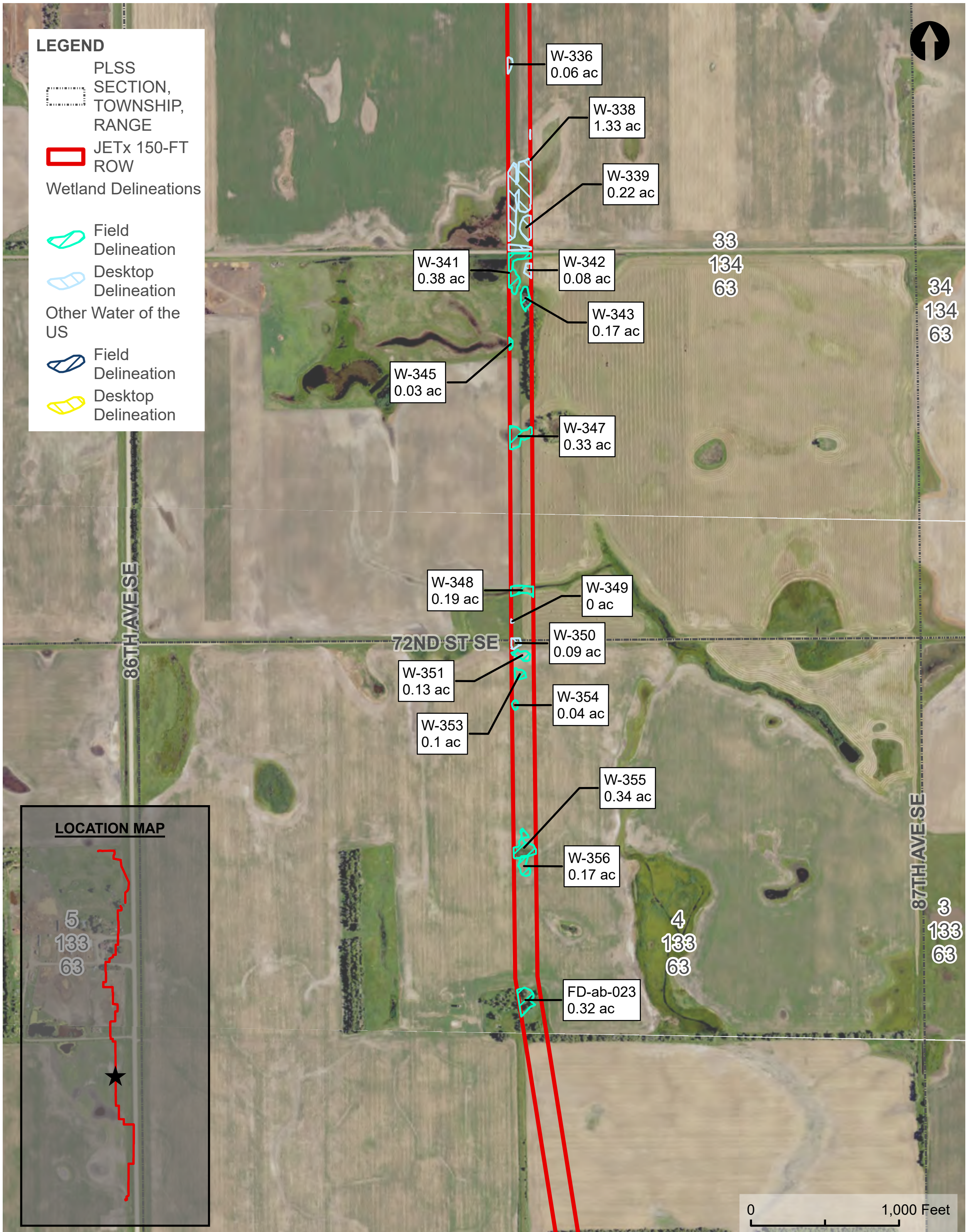


DELINEATED AQUATIC RESOURCES MAP

FIGURE

PAGE 36 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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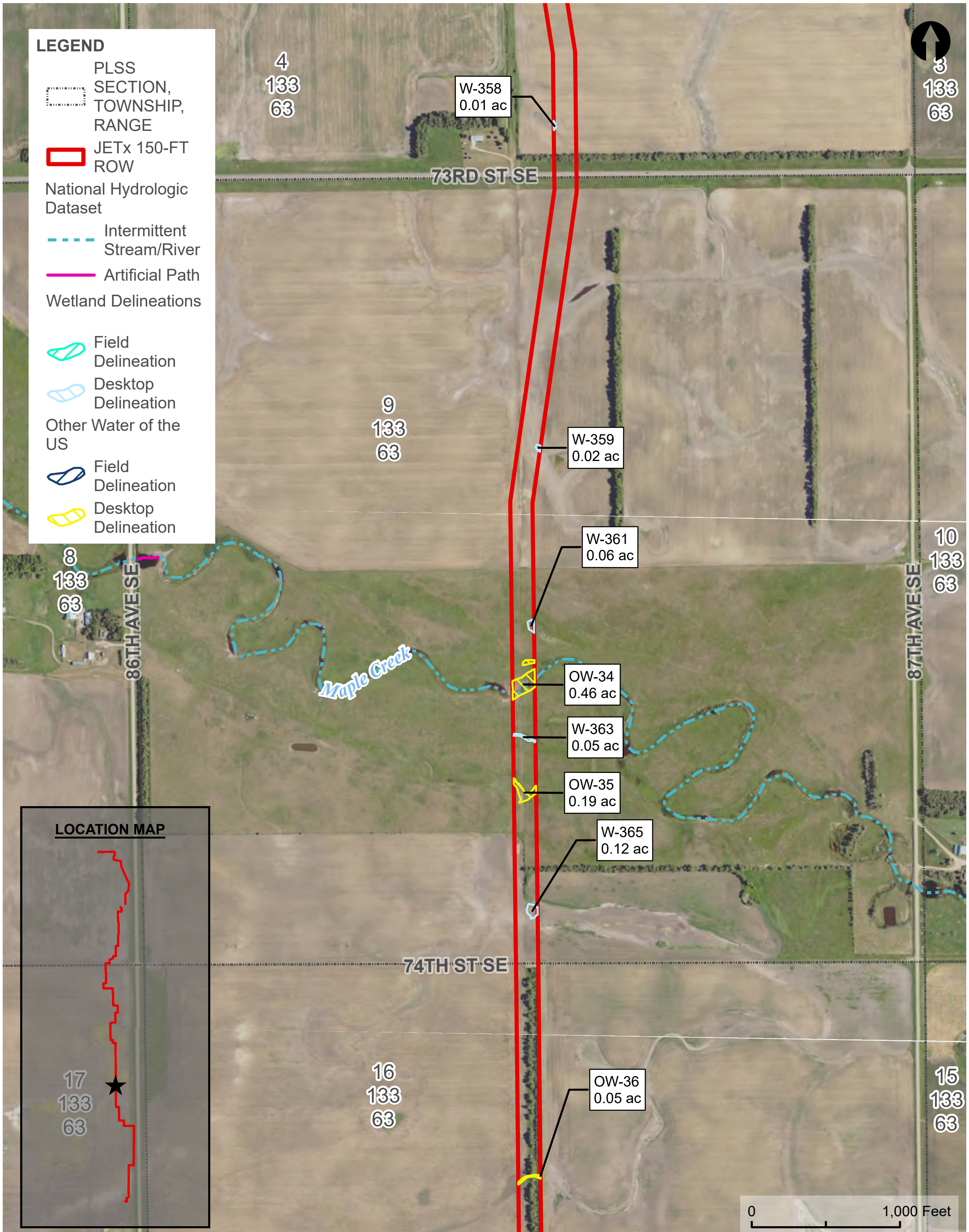
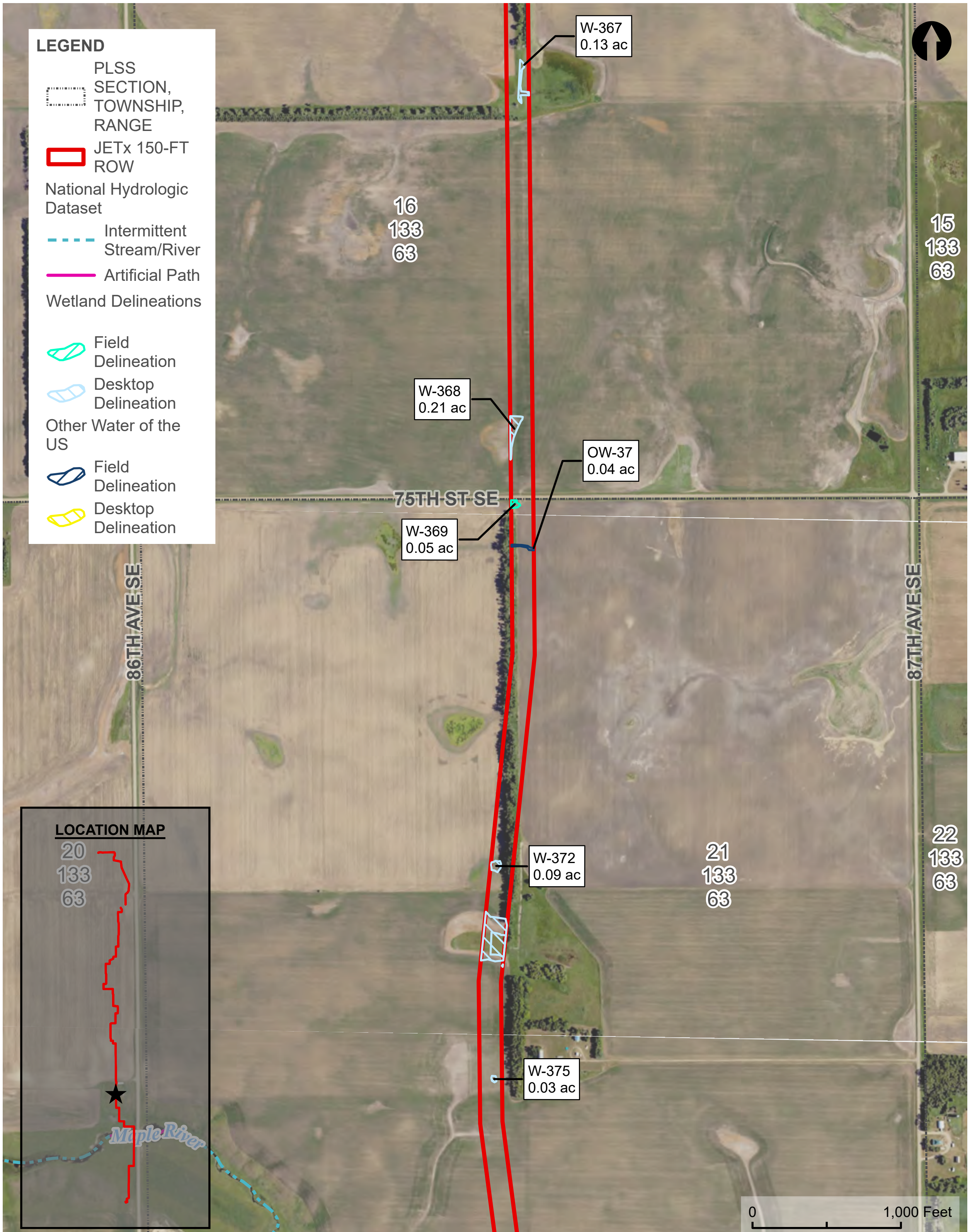
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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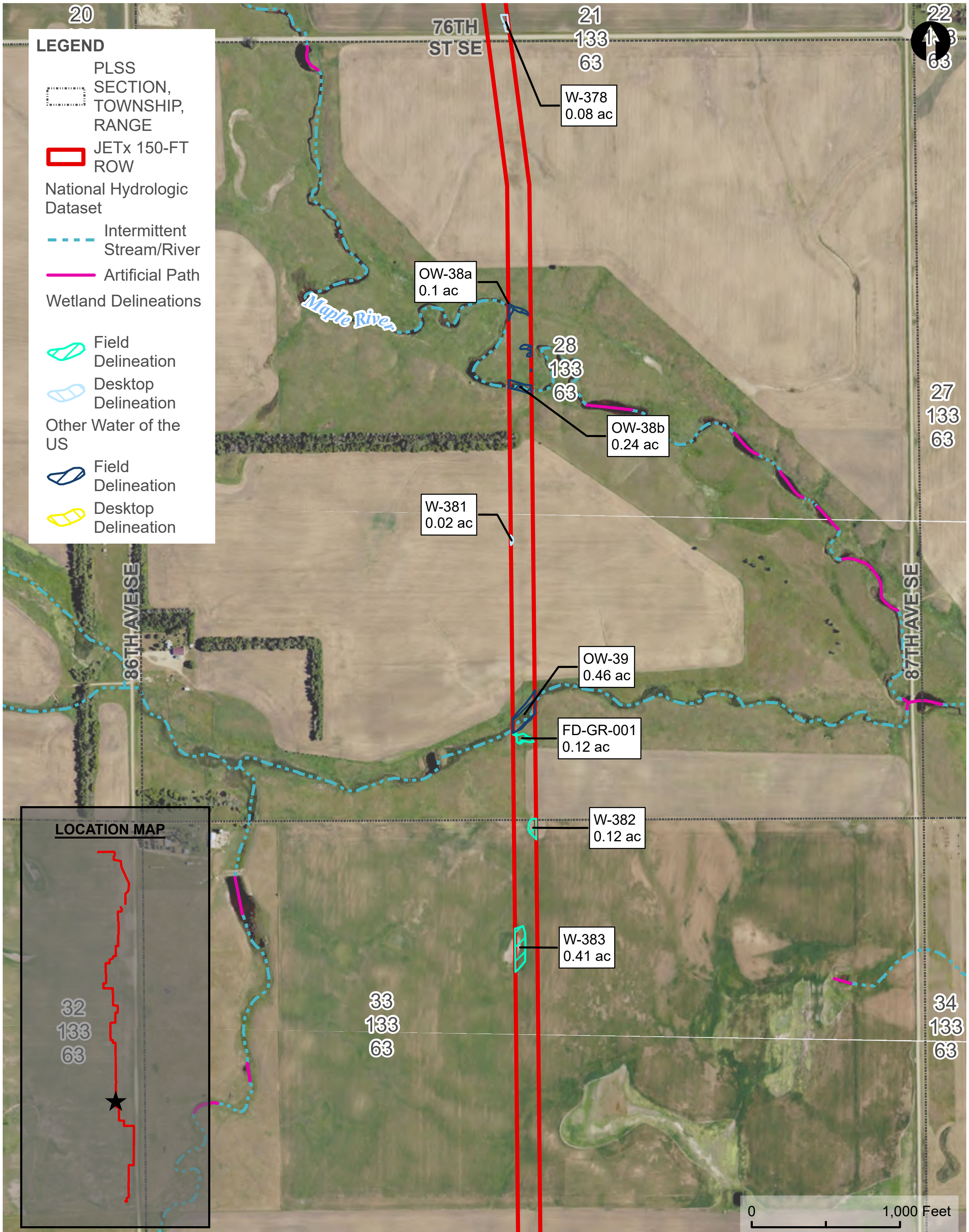
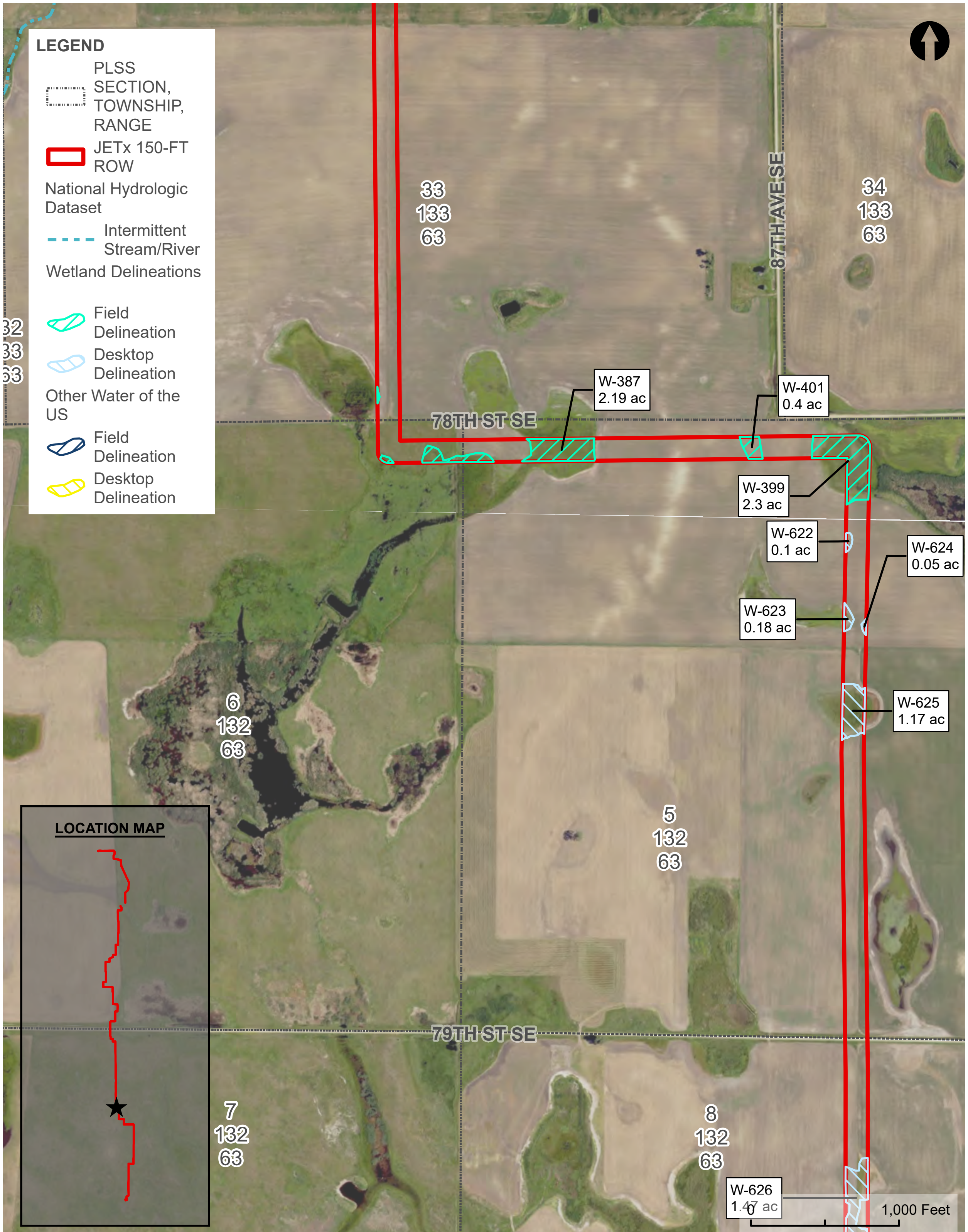
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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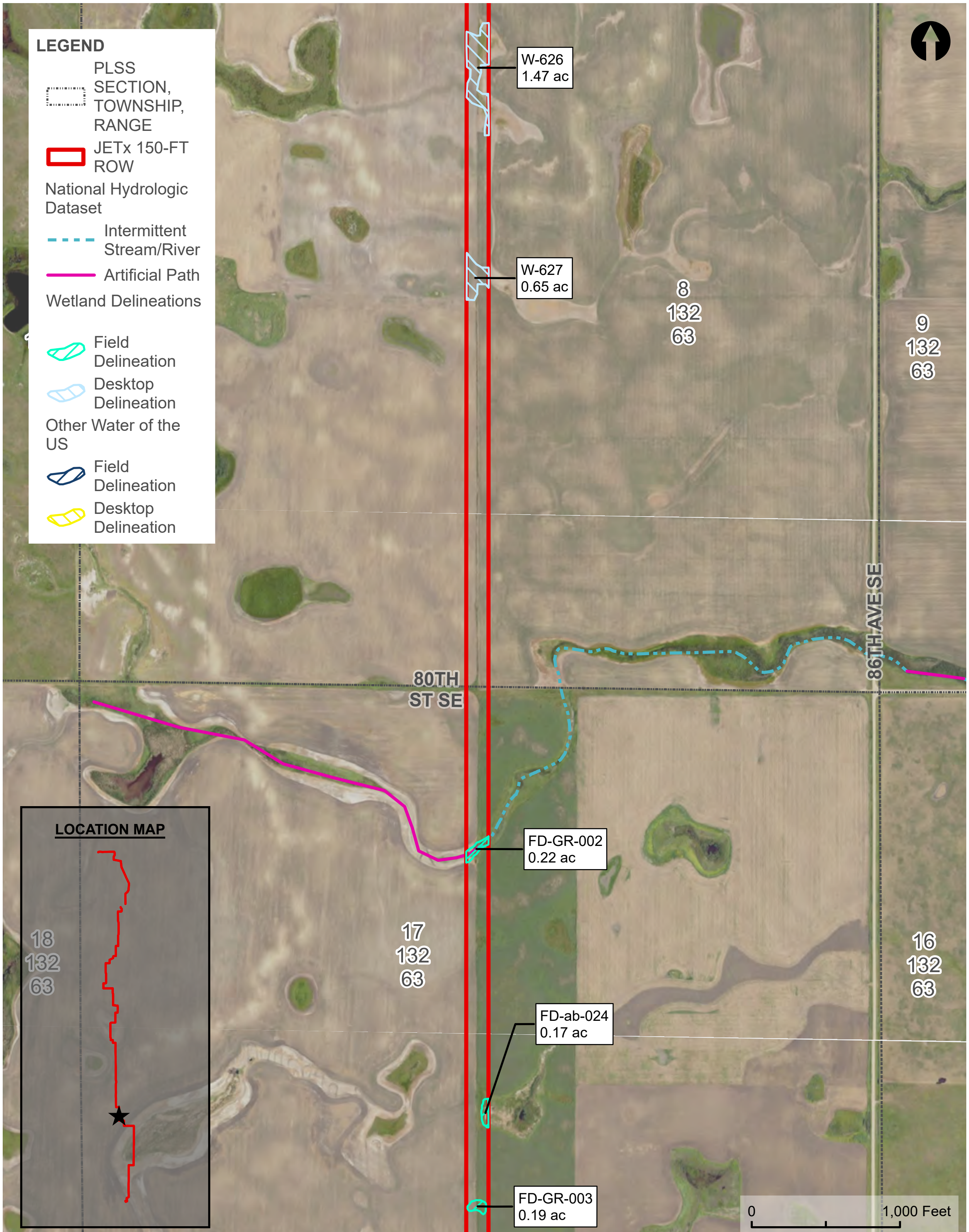
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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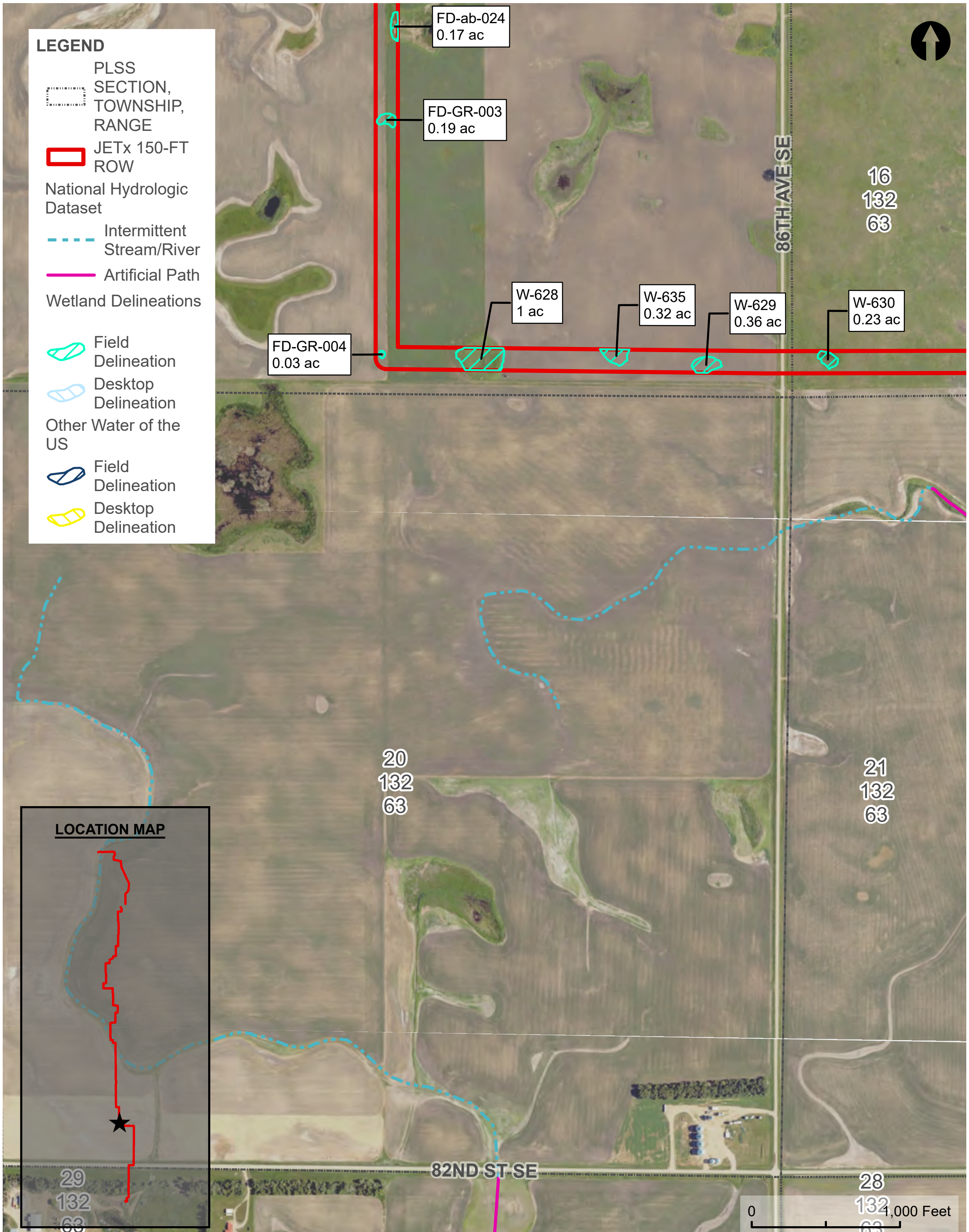
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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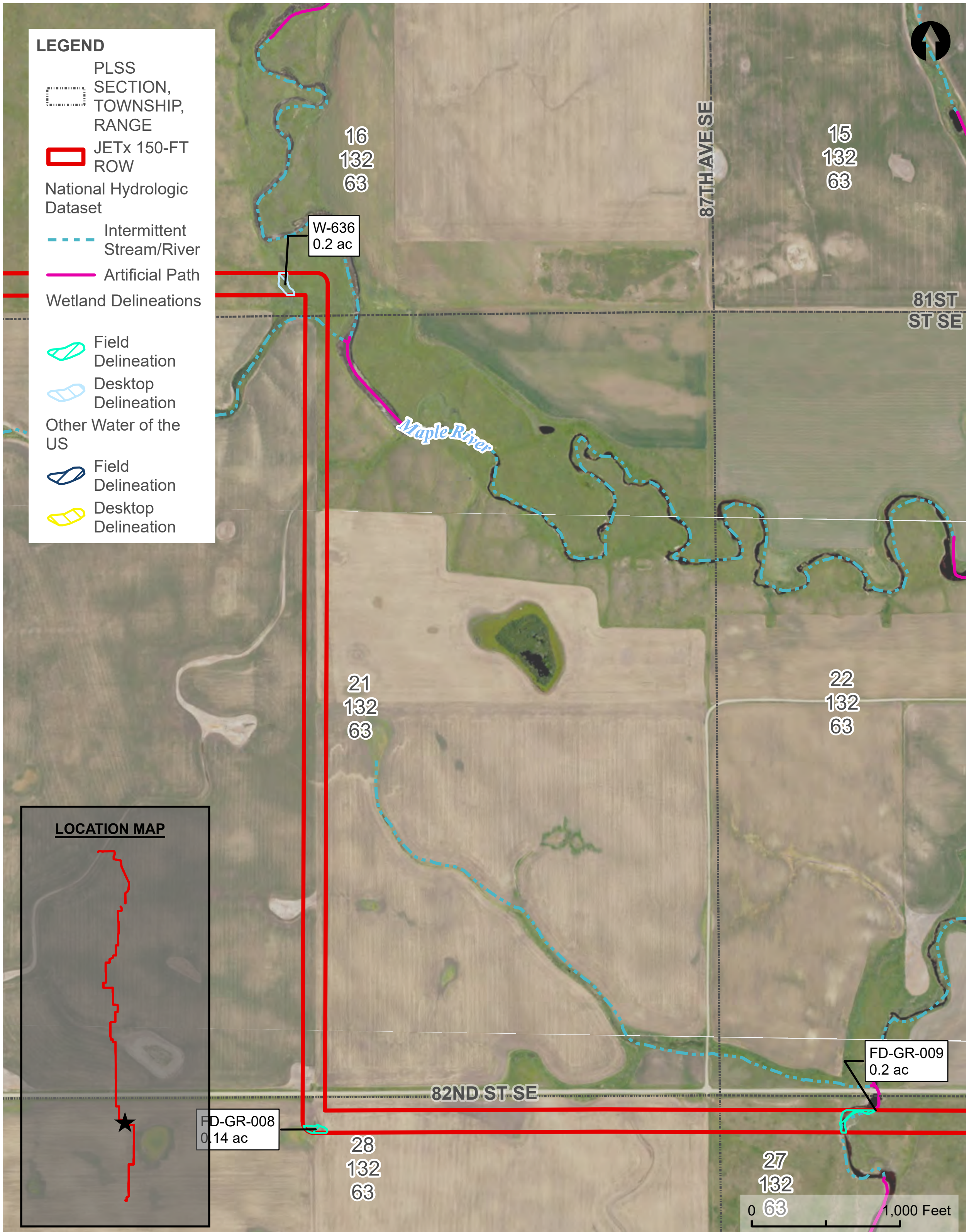
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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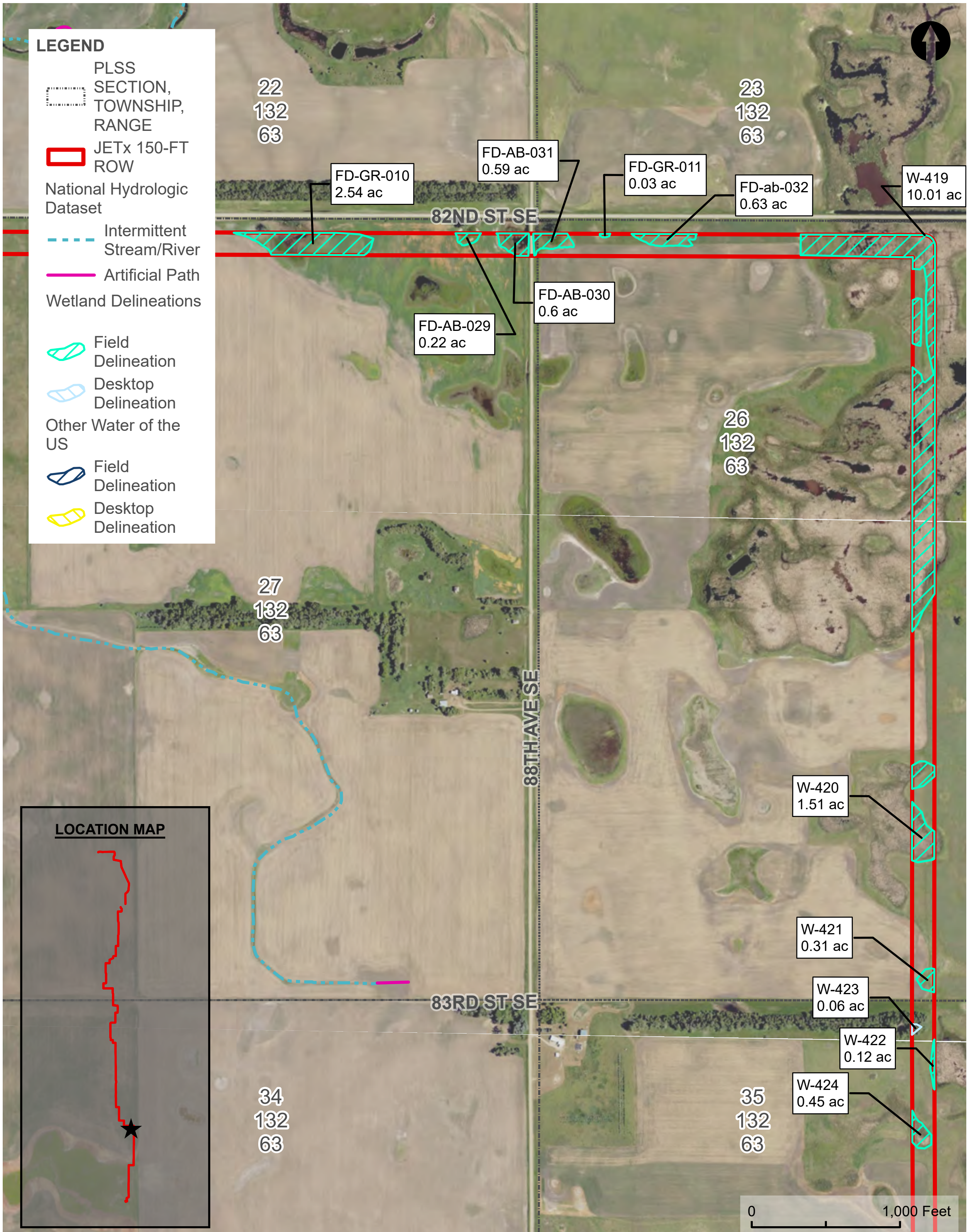
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP
FIGURE
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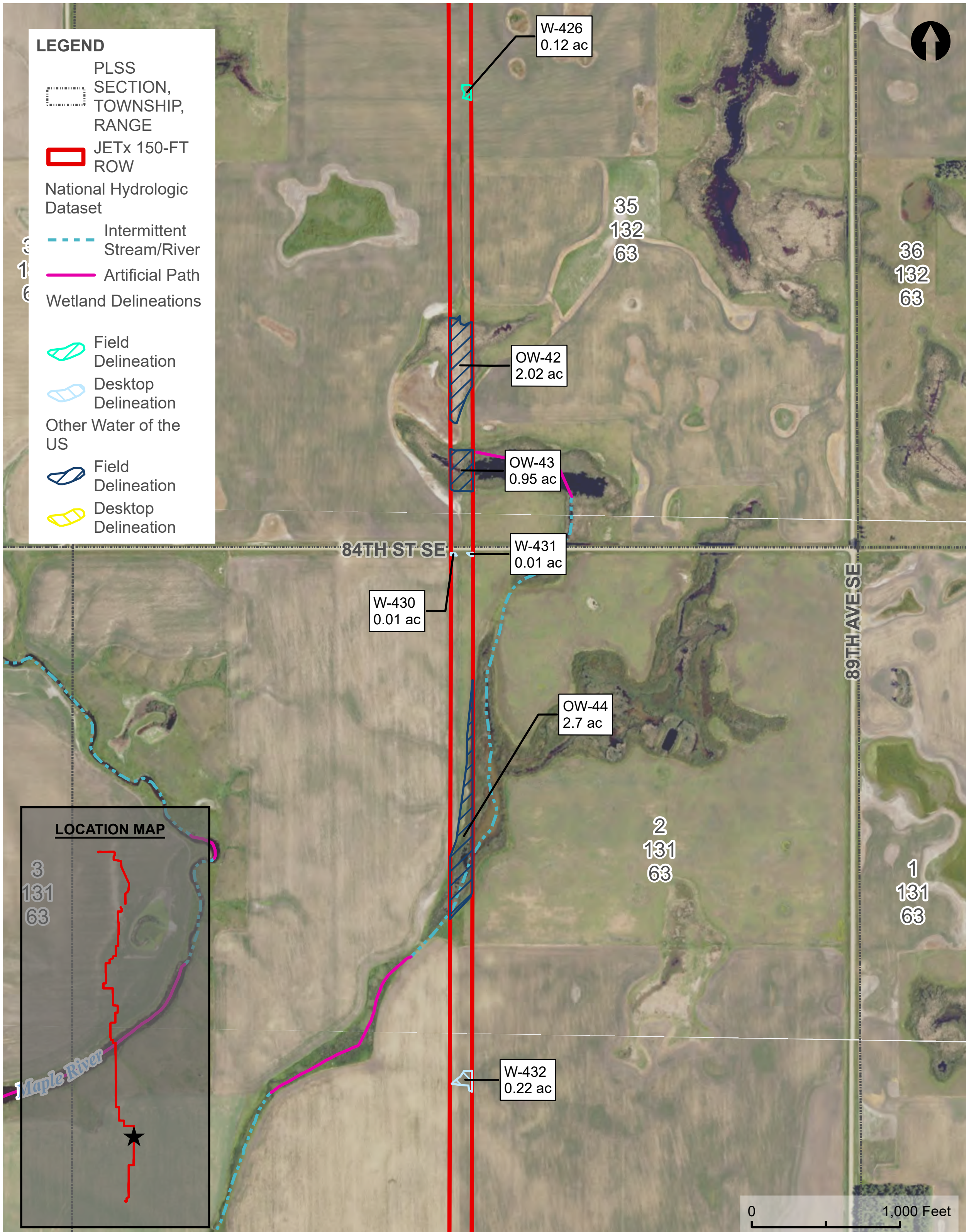
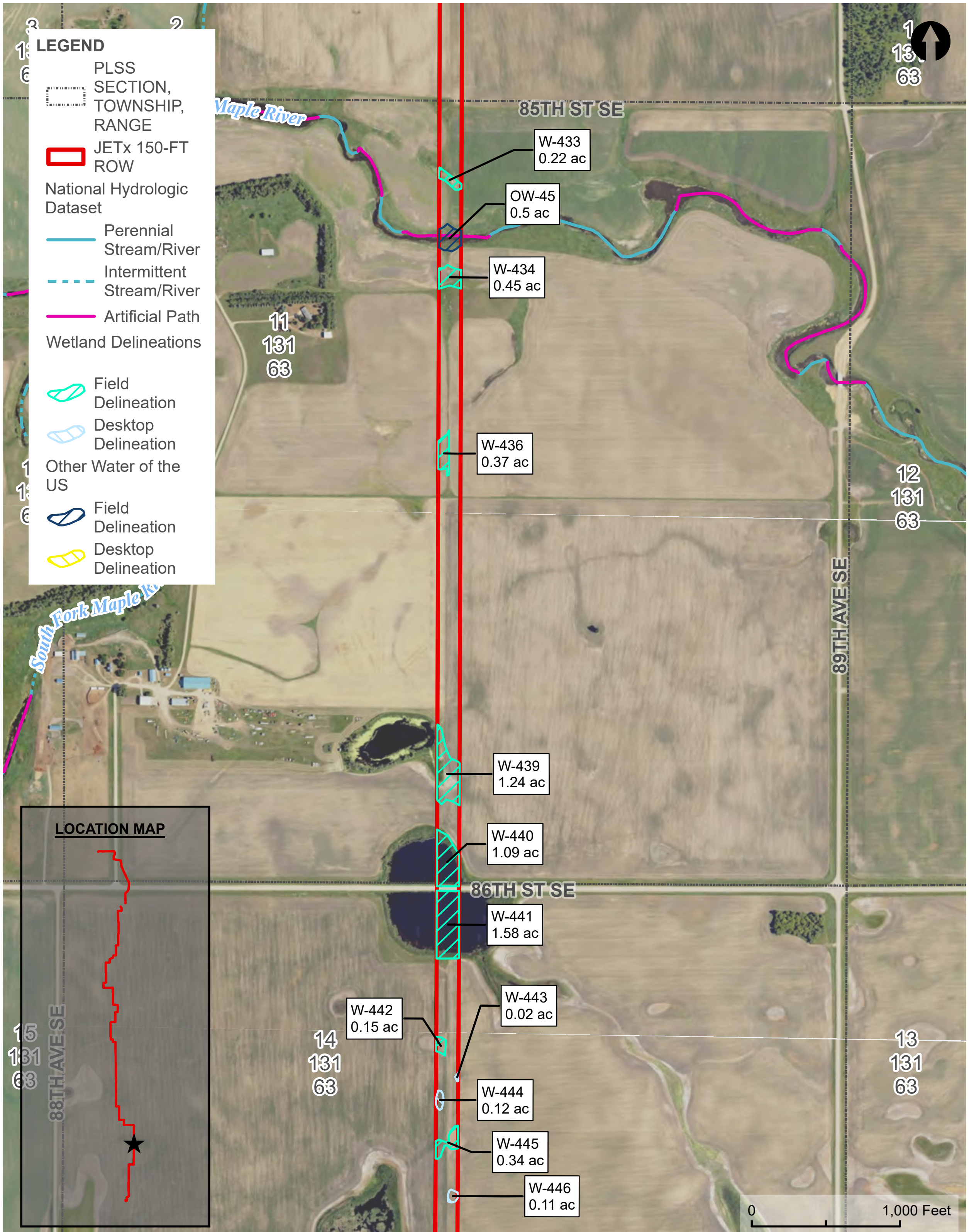
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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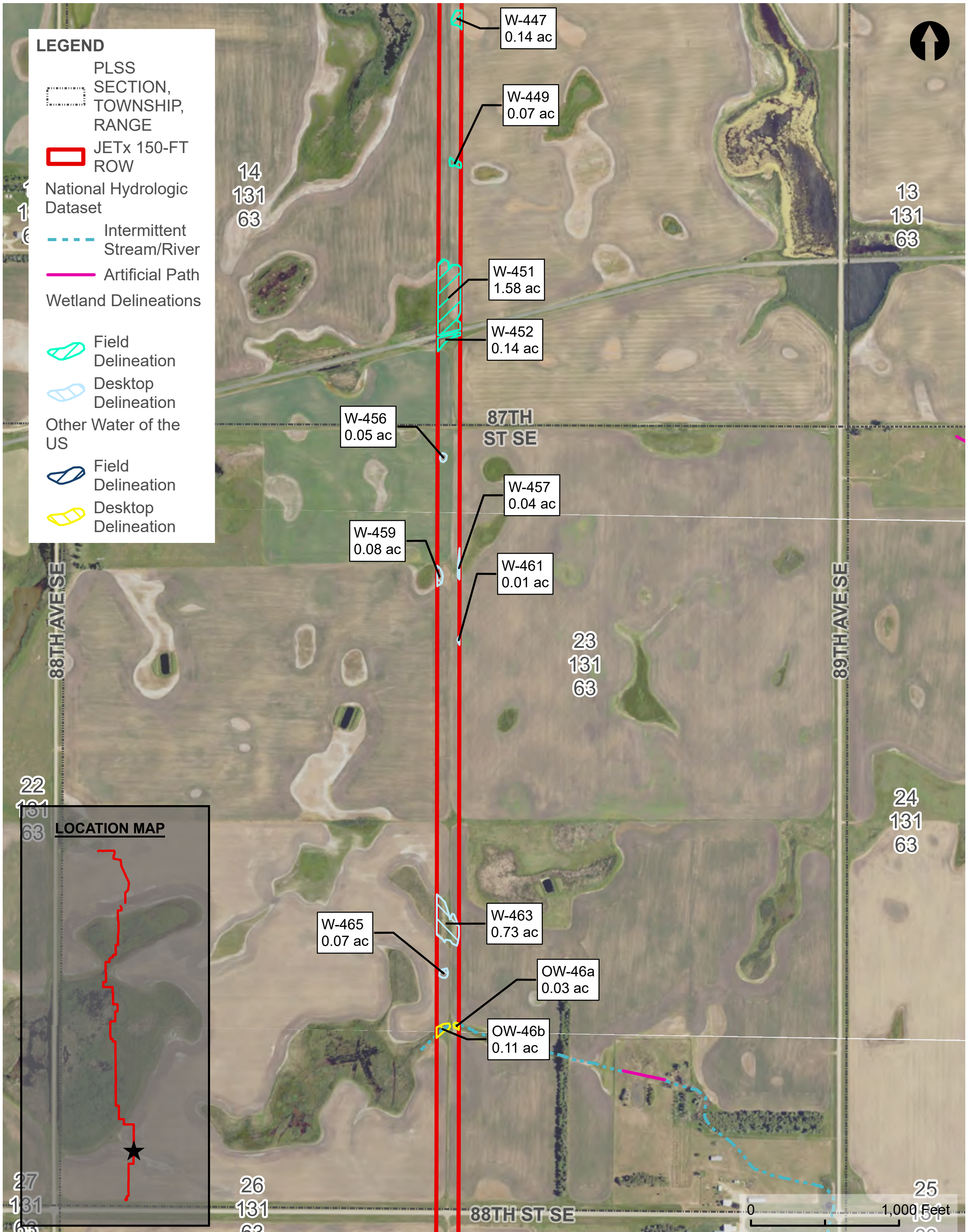
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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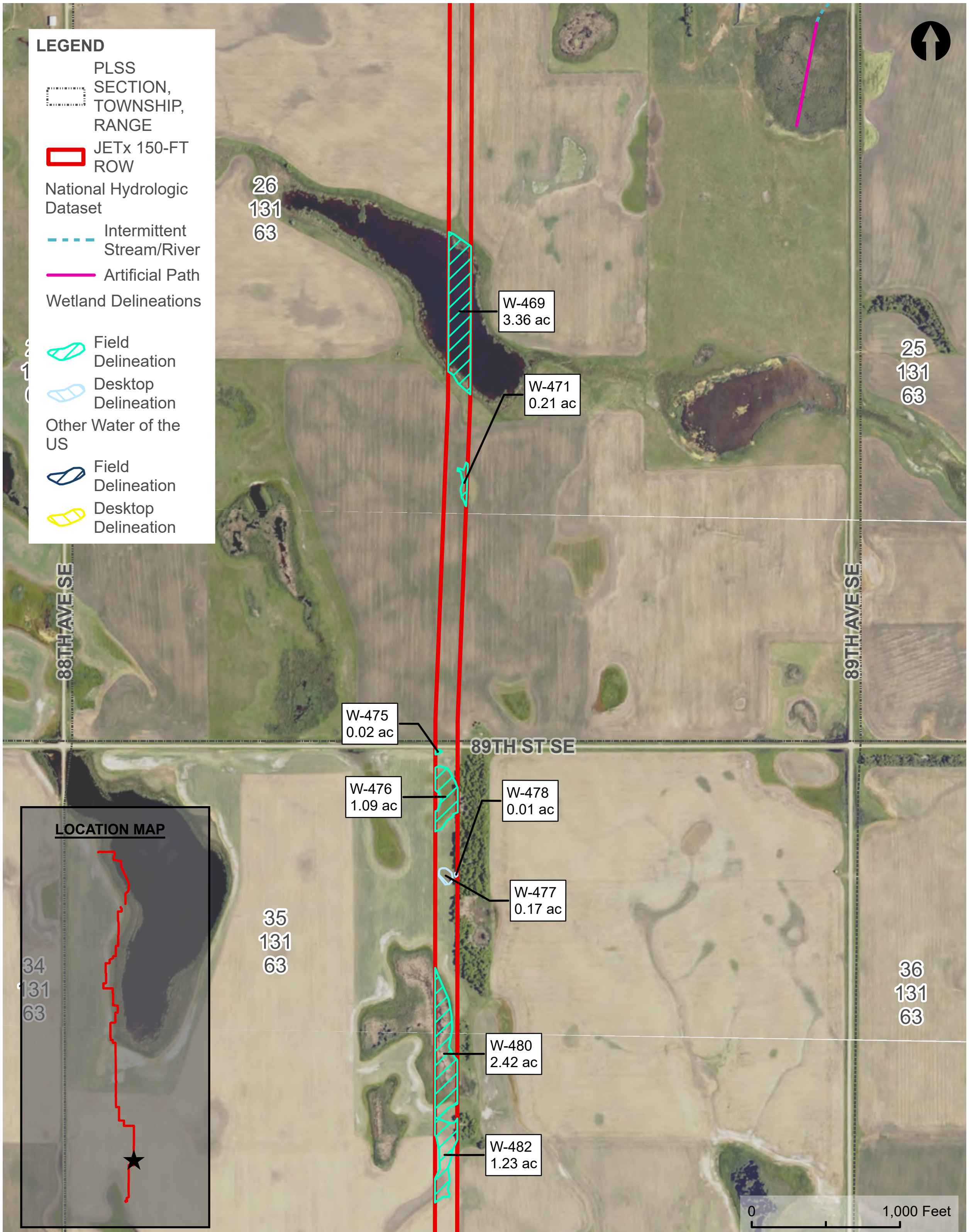
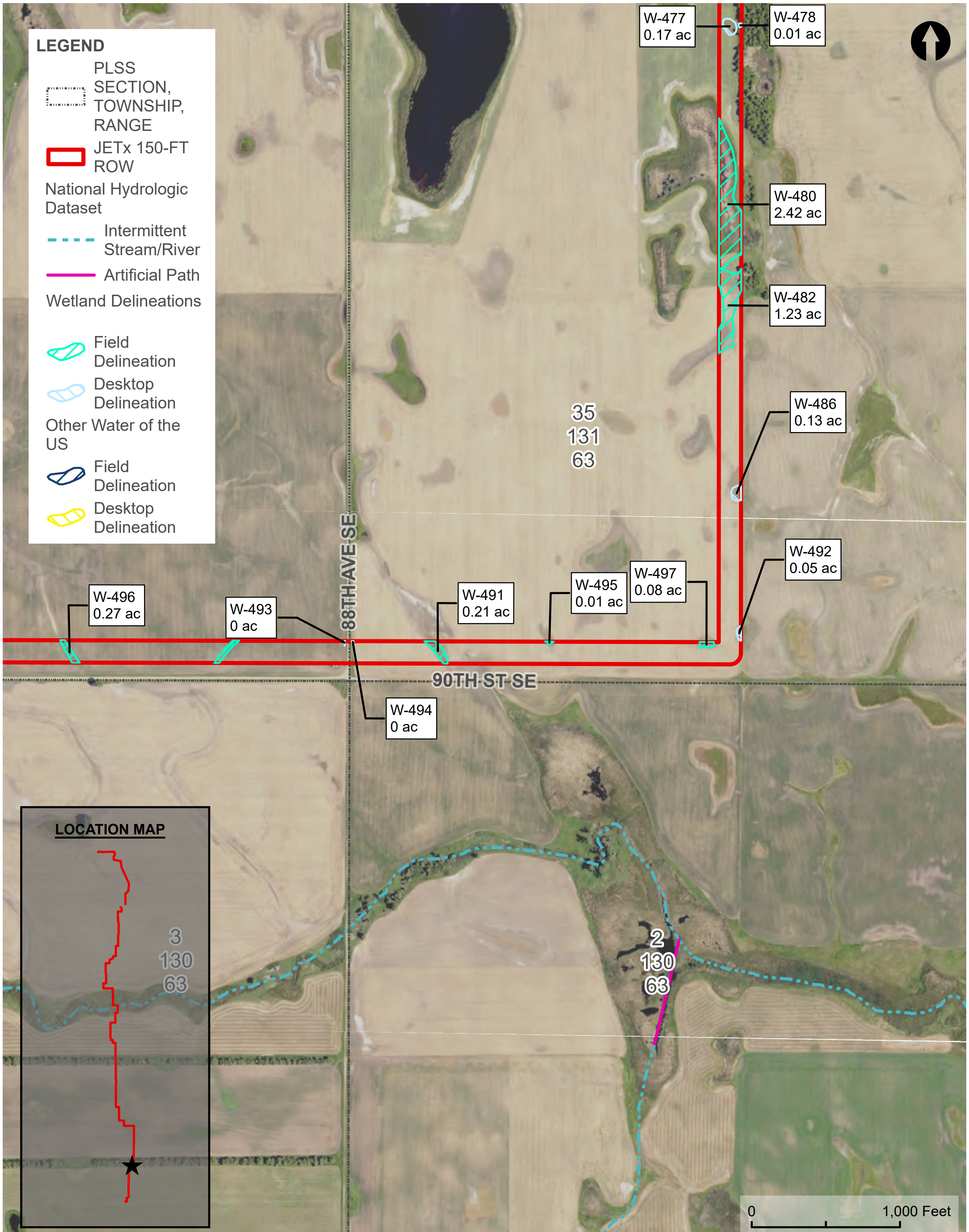
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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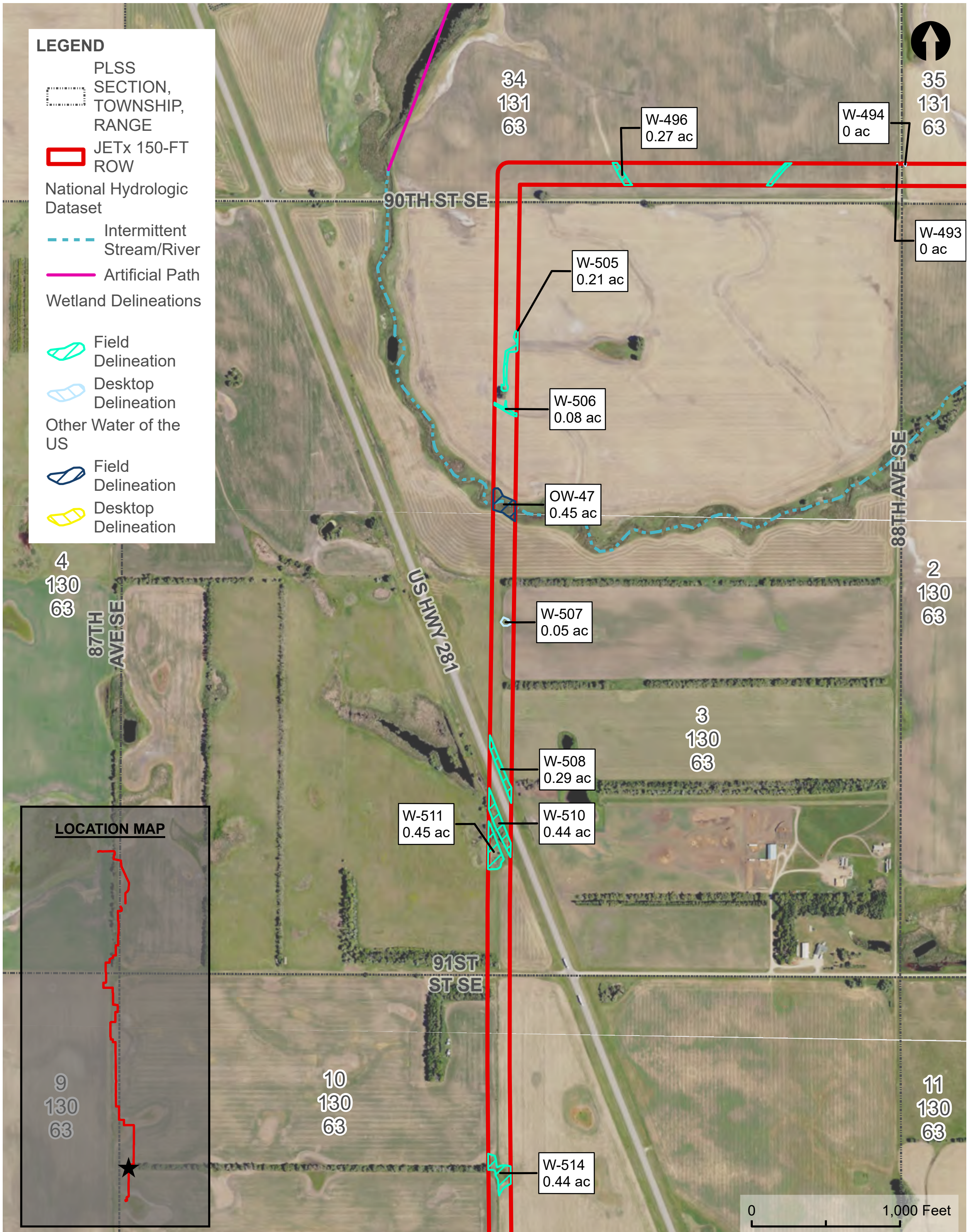
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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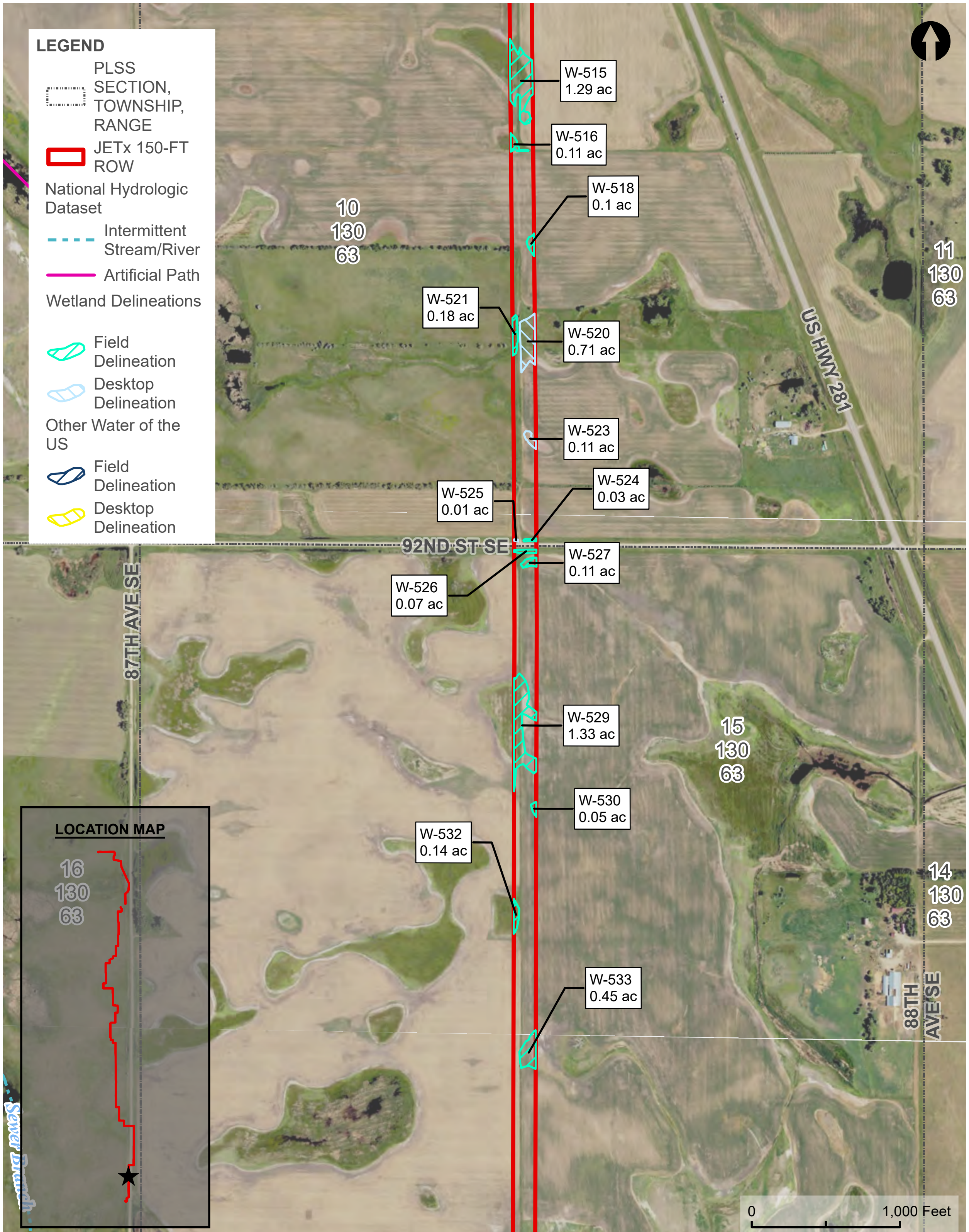
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

DELINEATED AQUATIC RESOURCES MAP

FIGURE

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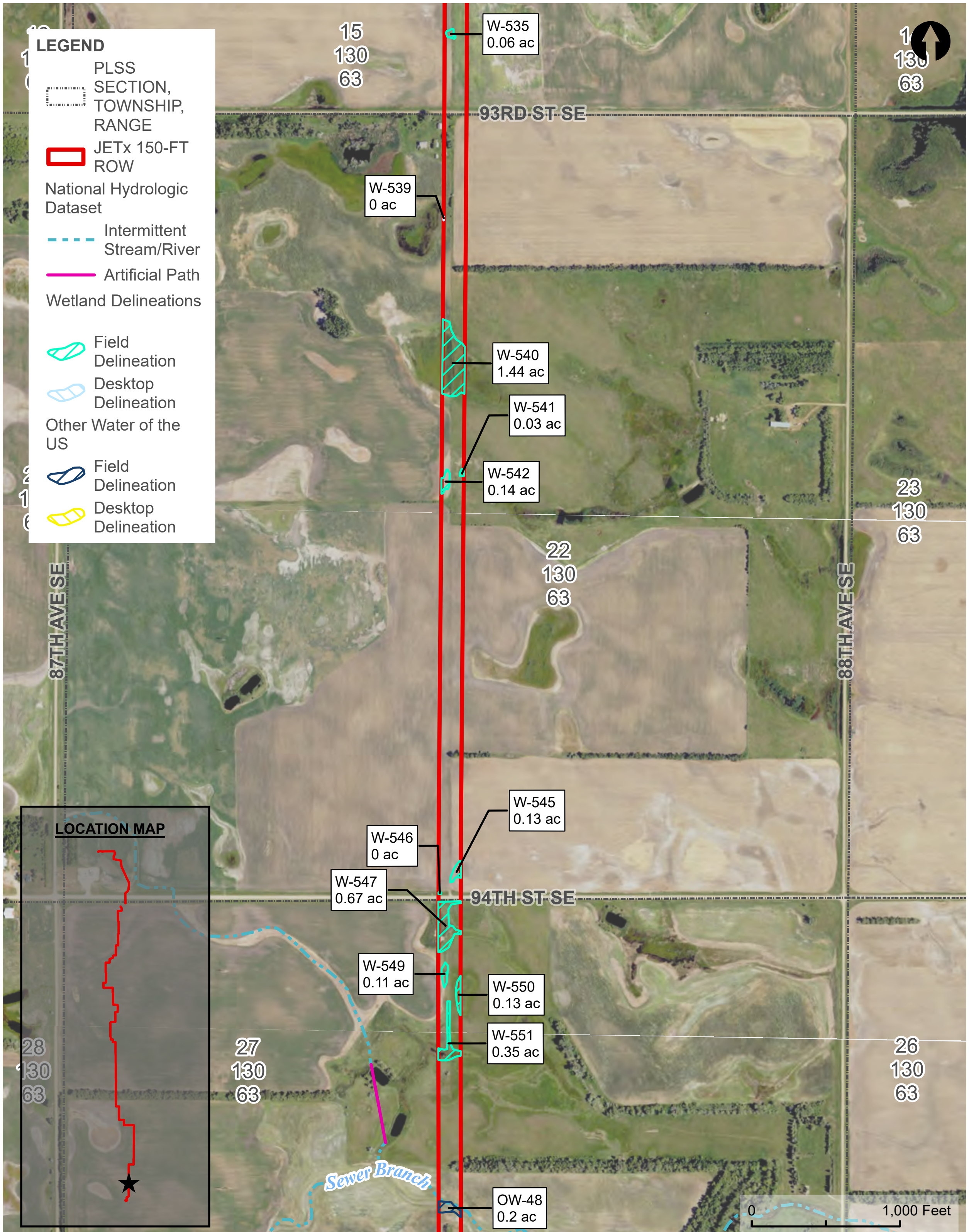
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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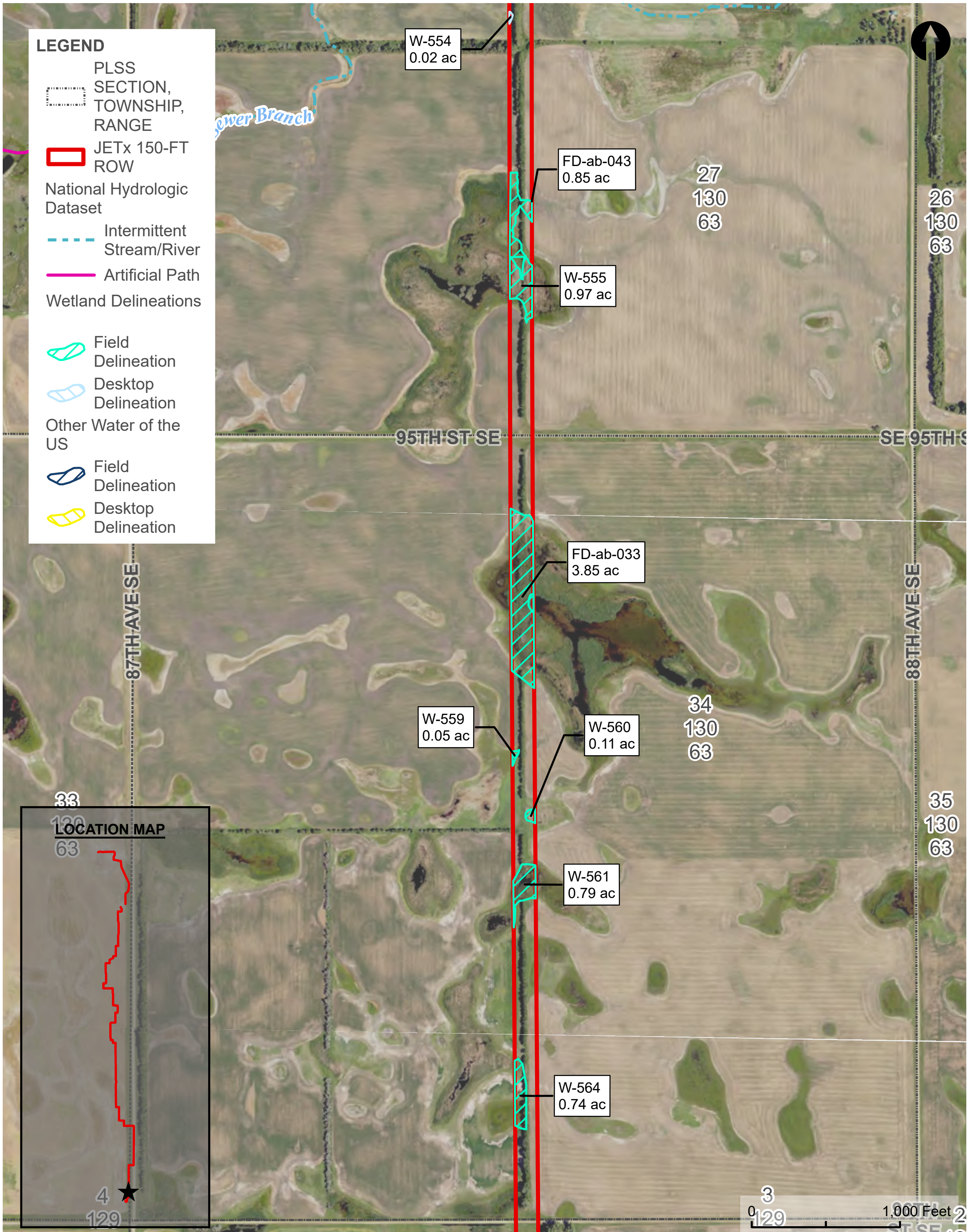
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



DELINEATED AQUATIC RESOURCES MAP

FIGURE

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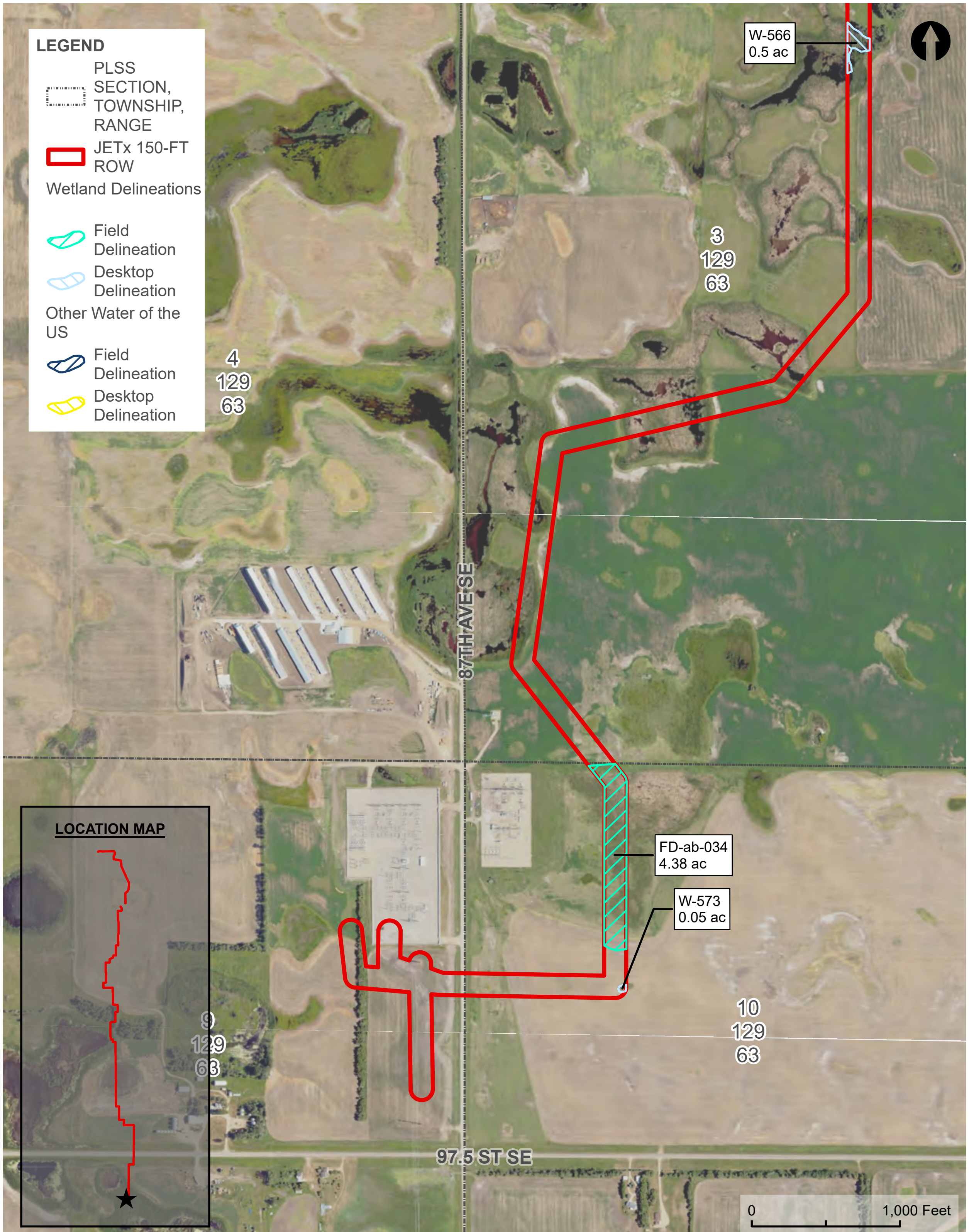
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

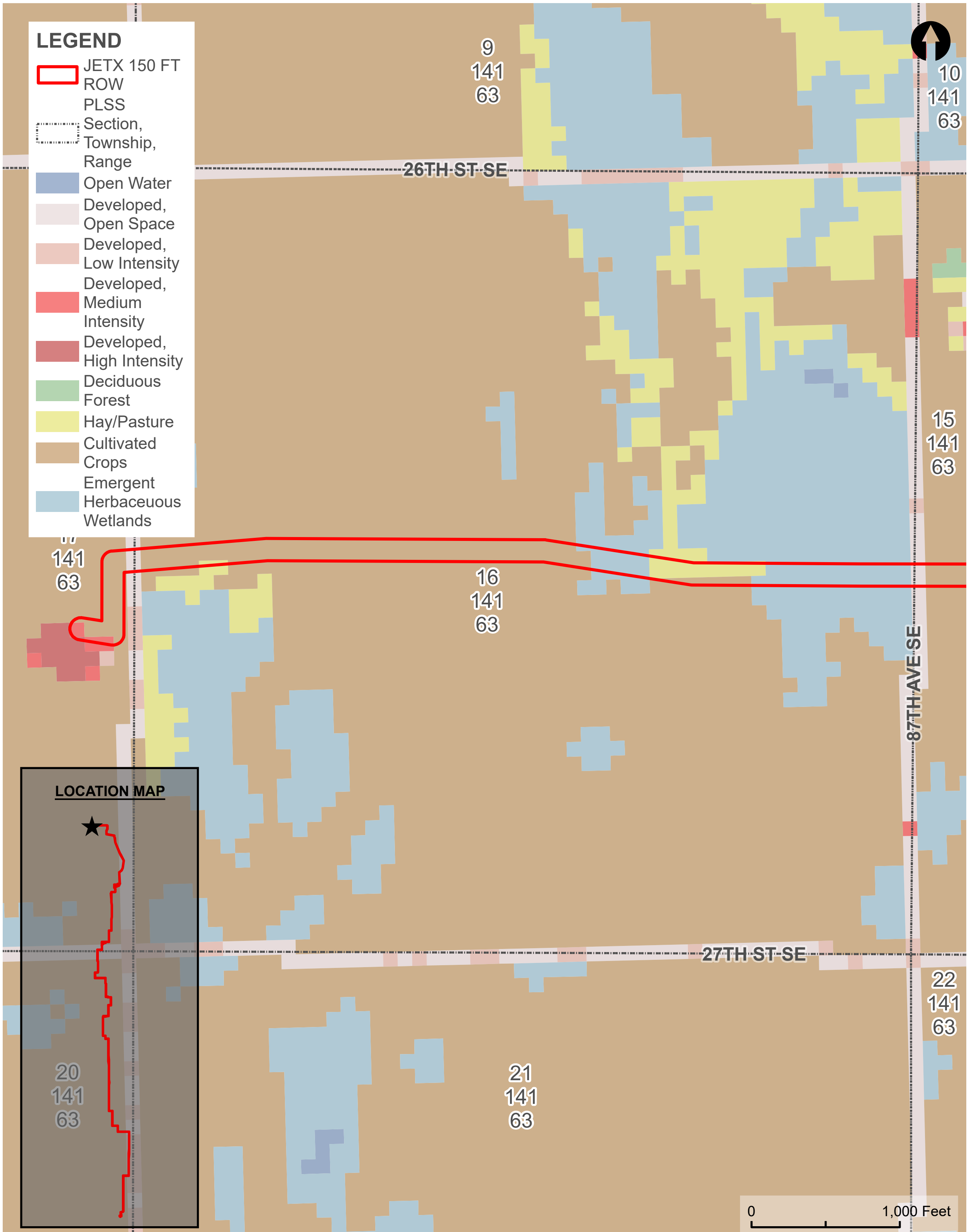


DELINEATED AQUATIC RESOURCES MAP

FIGURE

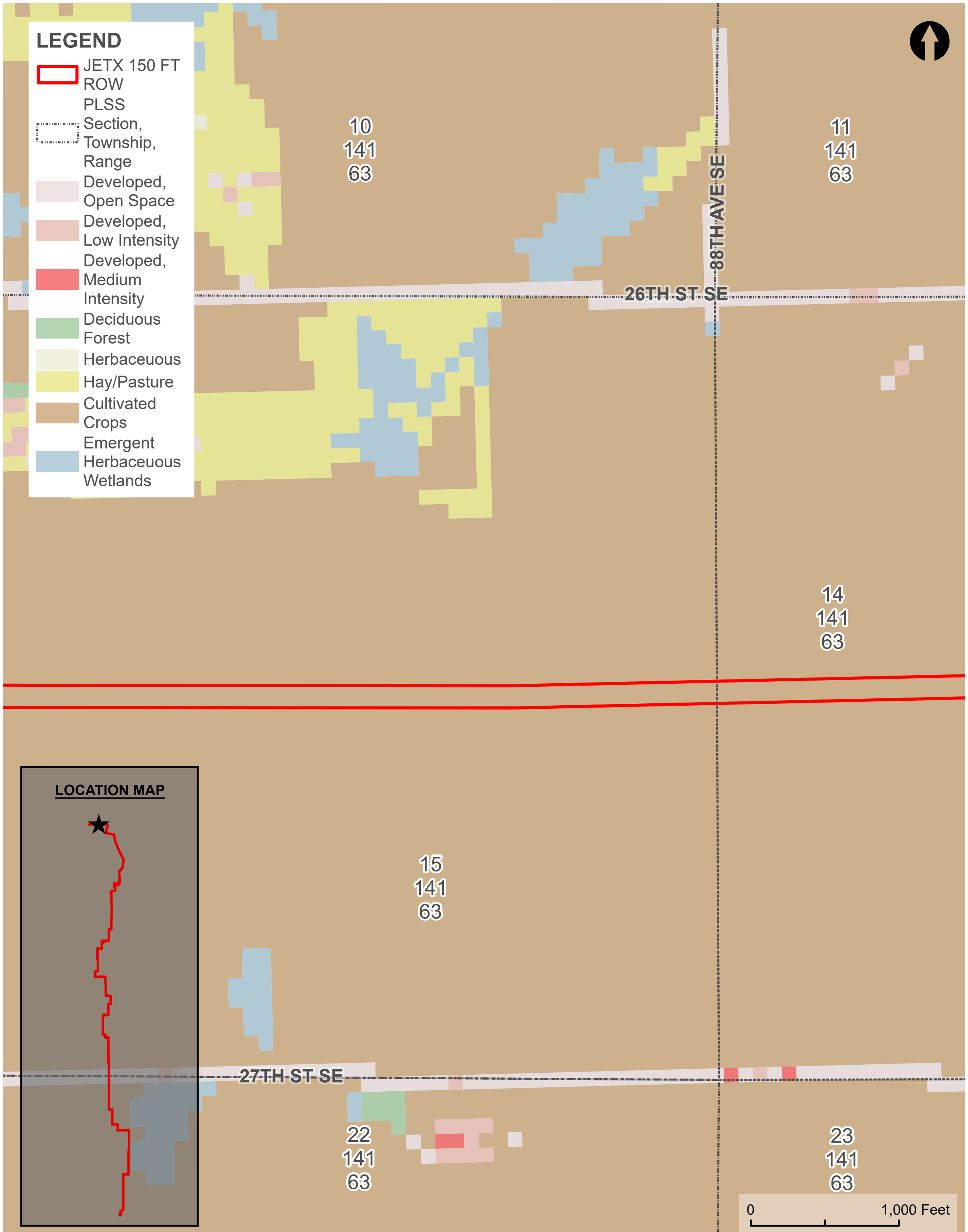
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

Appendix B. Supporting Maps



NATIONAL LANDCOVER DATASET (NLCD) MAP

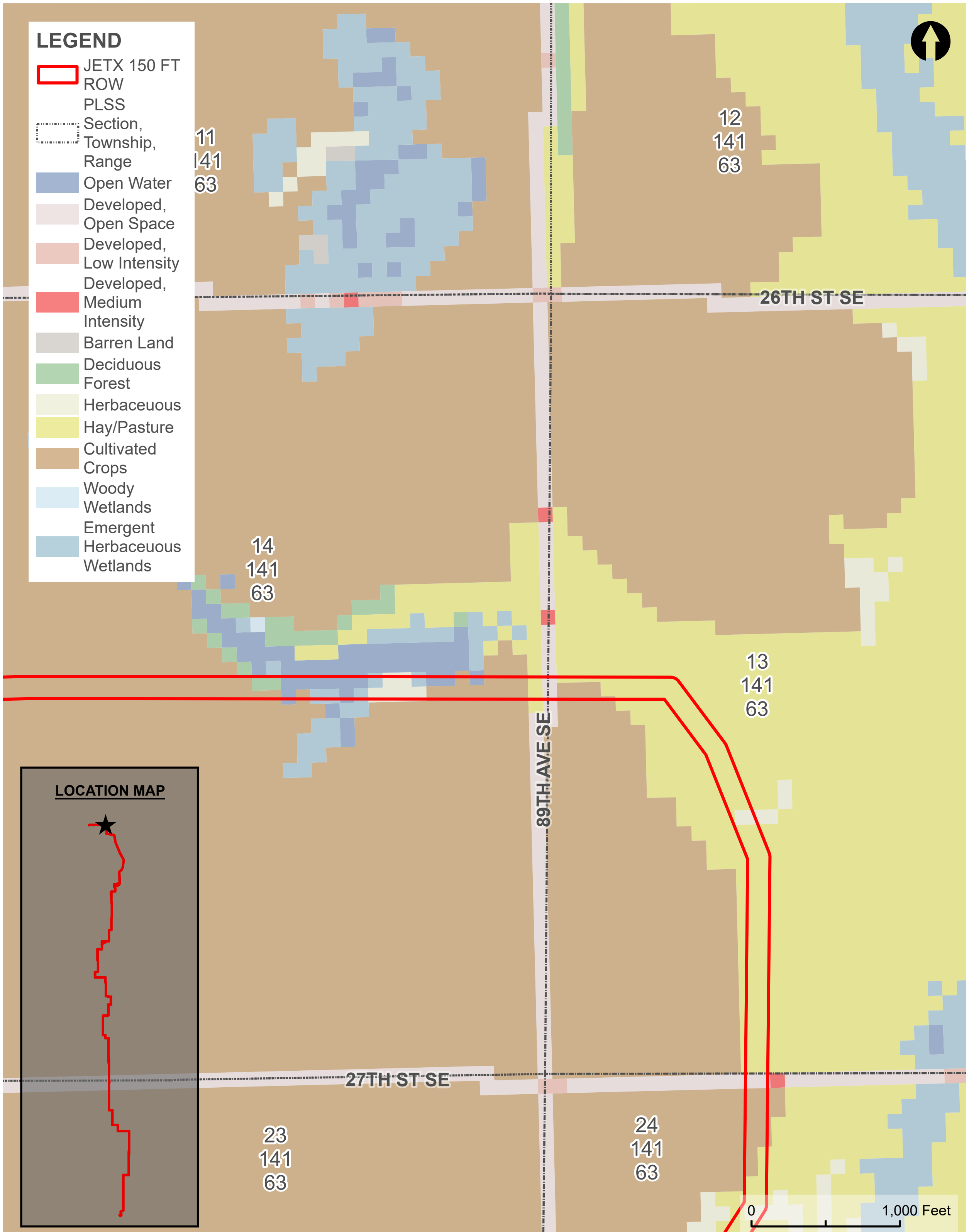
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



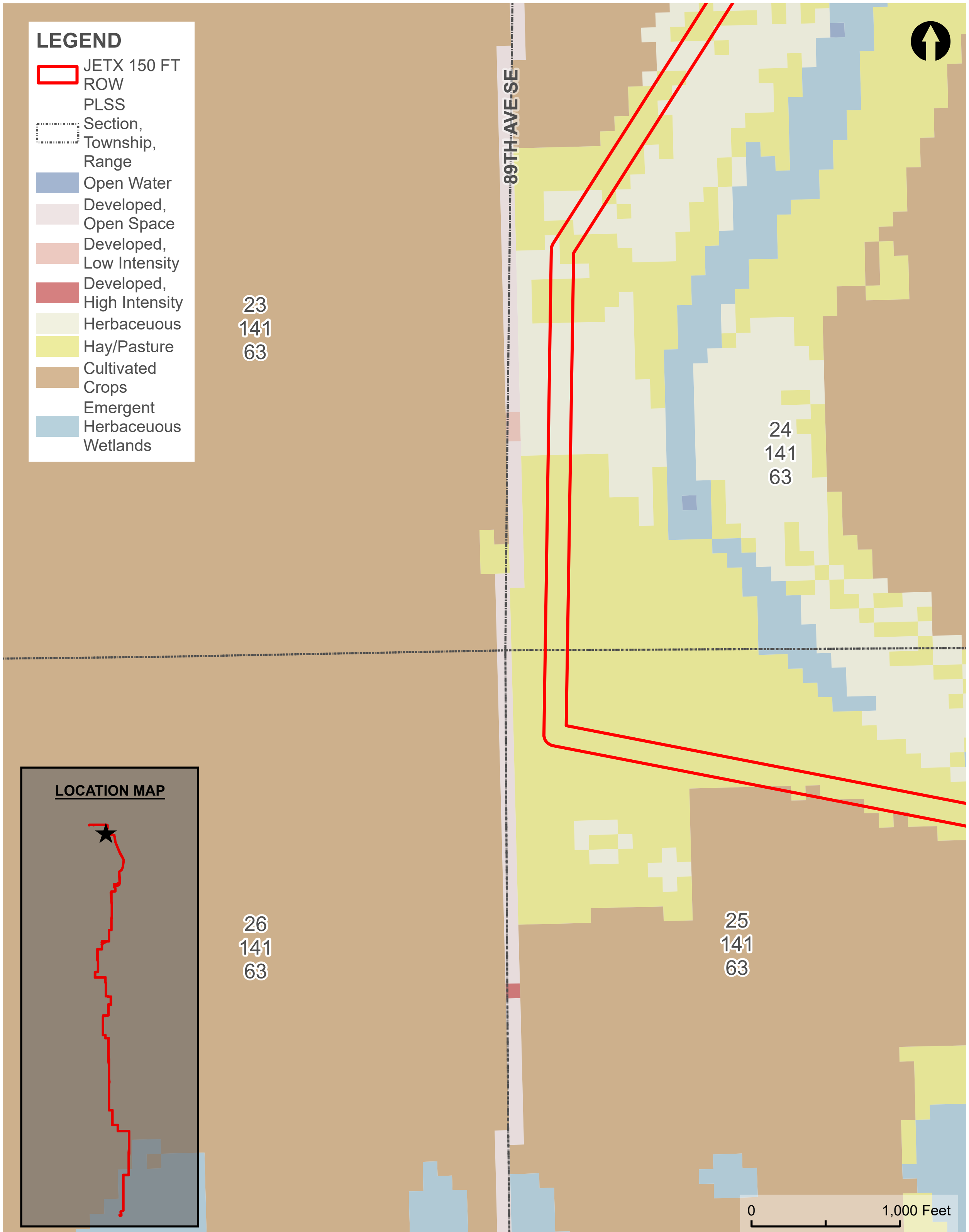
JETx Jamestown to Ellendale

NATIONAL LANDCOVER DATASET (NLCD) MAP

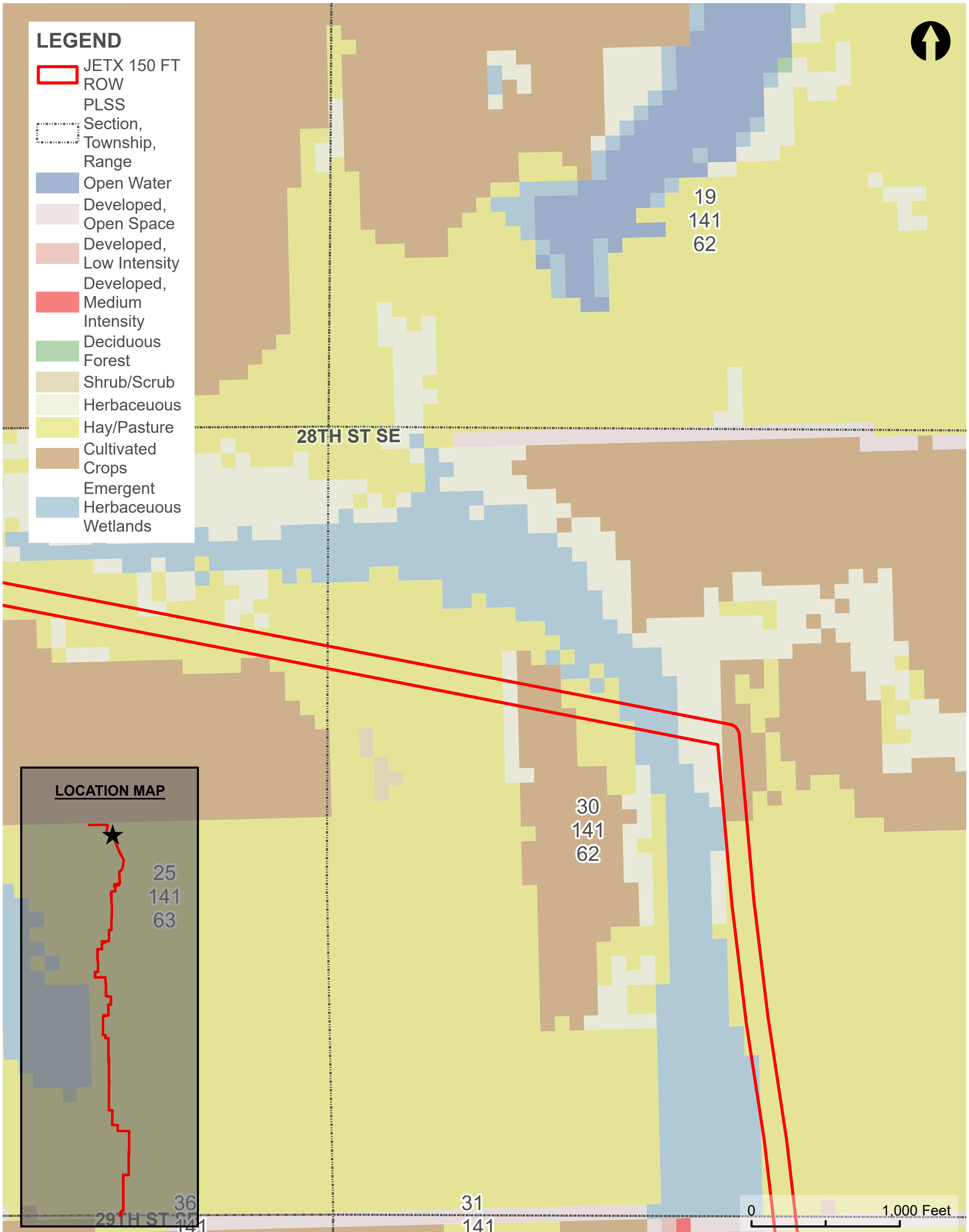
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL LANDCOVER DATASET (NLCD) MAP

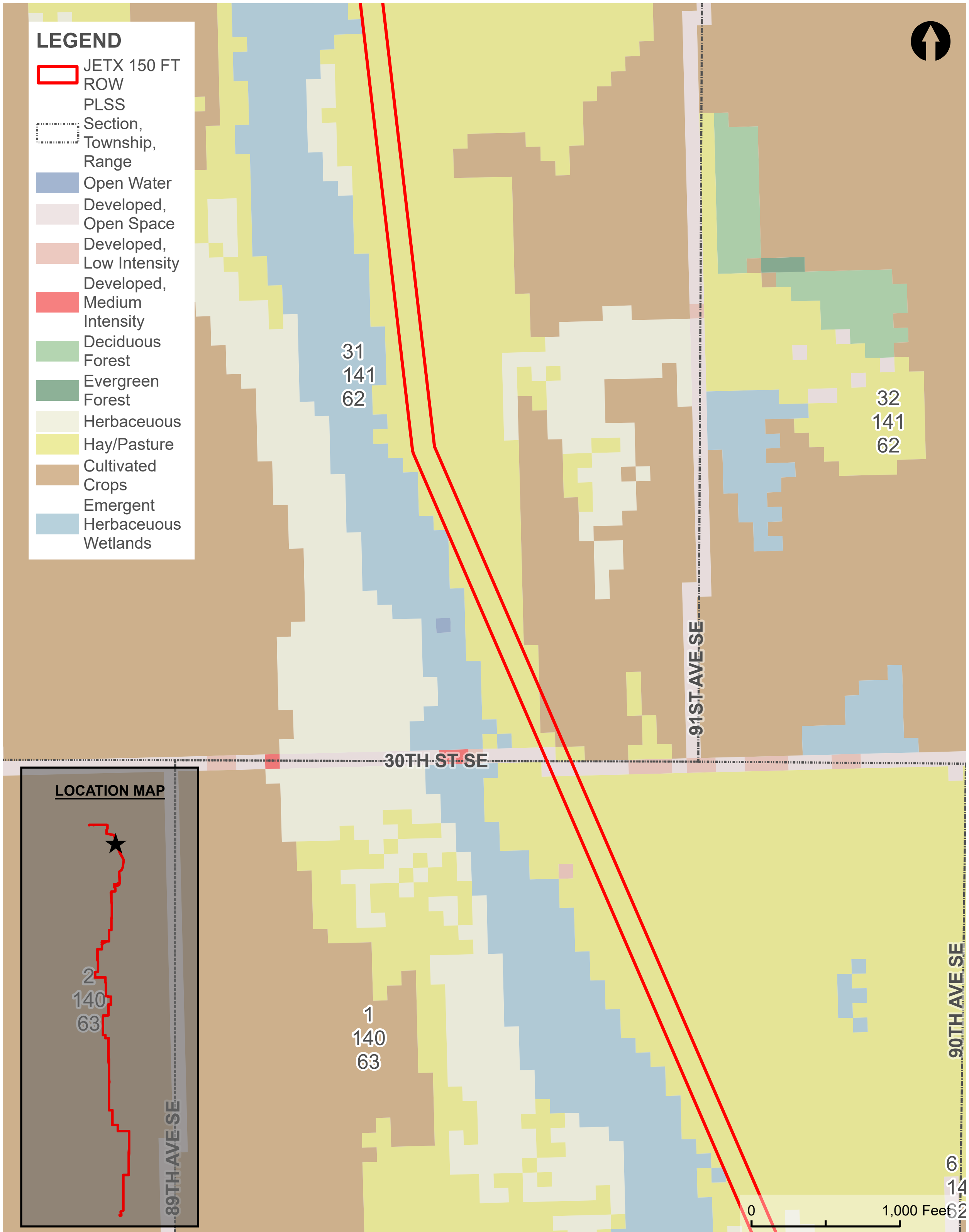


NATIONAL LANDCOVER DATASET (NLCD) MAP

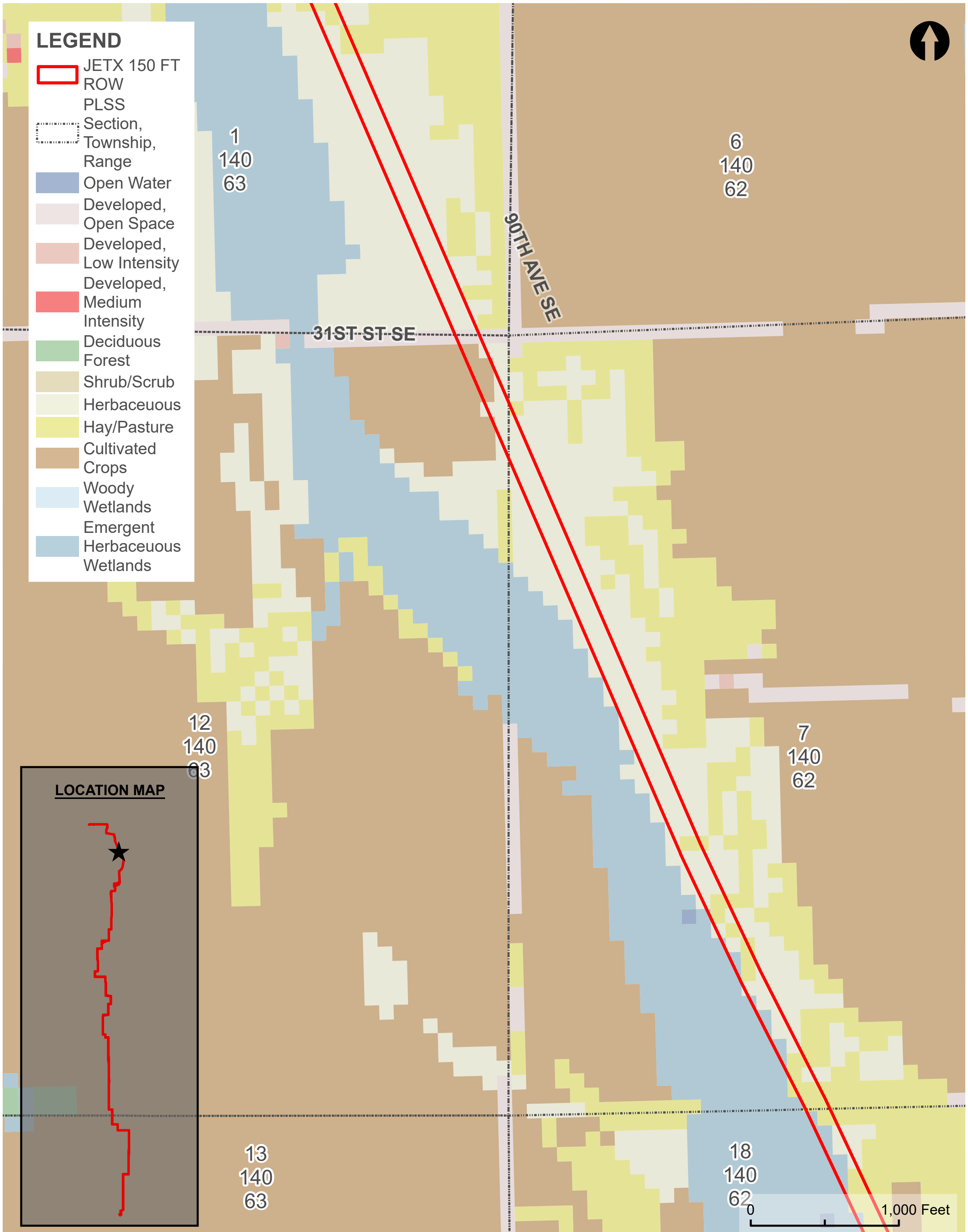


NATIONAL LANDCOVER DATASET (NLCD) MAP

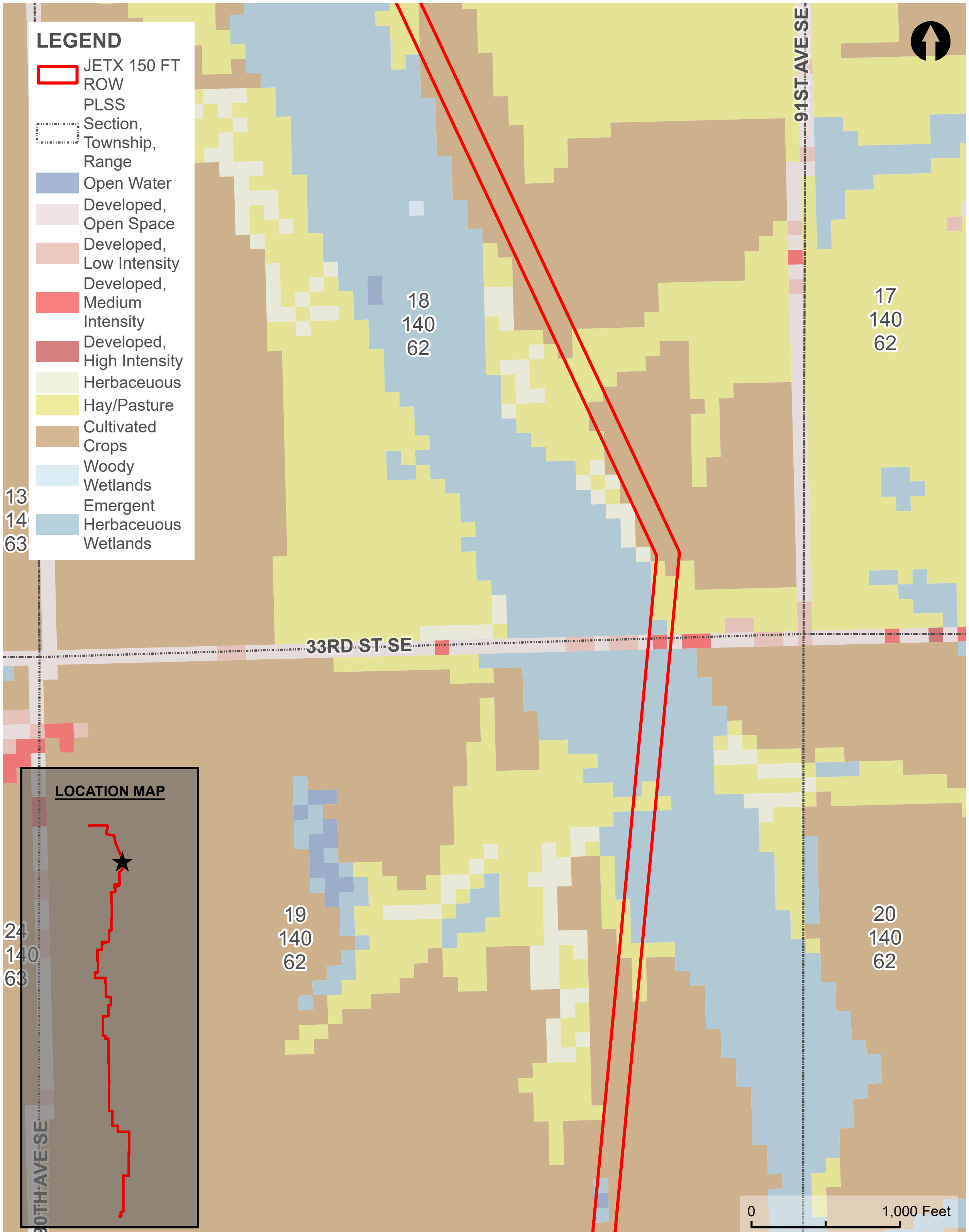
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL LANDCOVER DATASET (NLCD) MAP

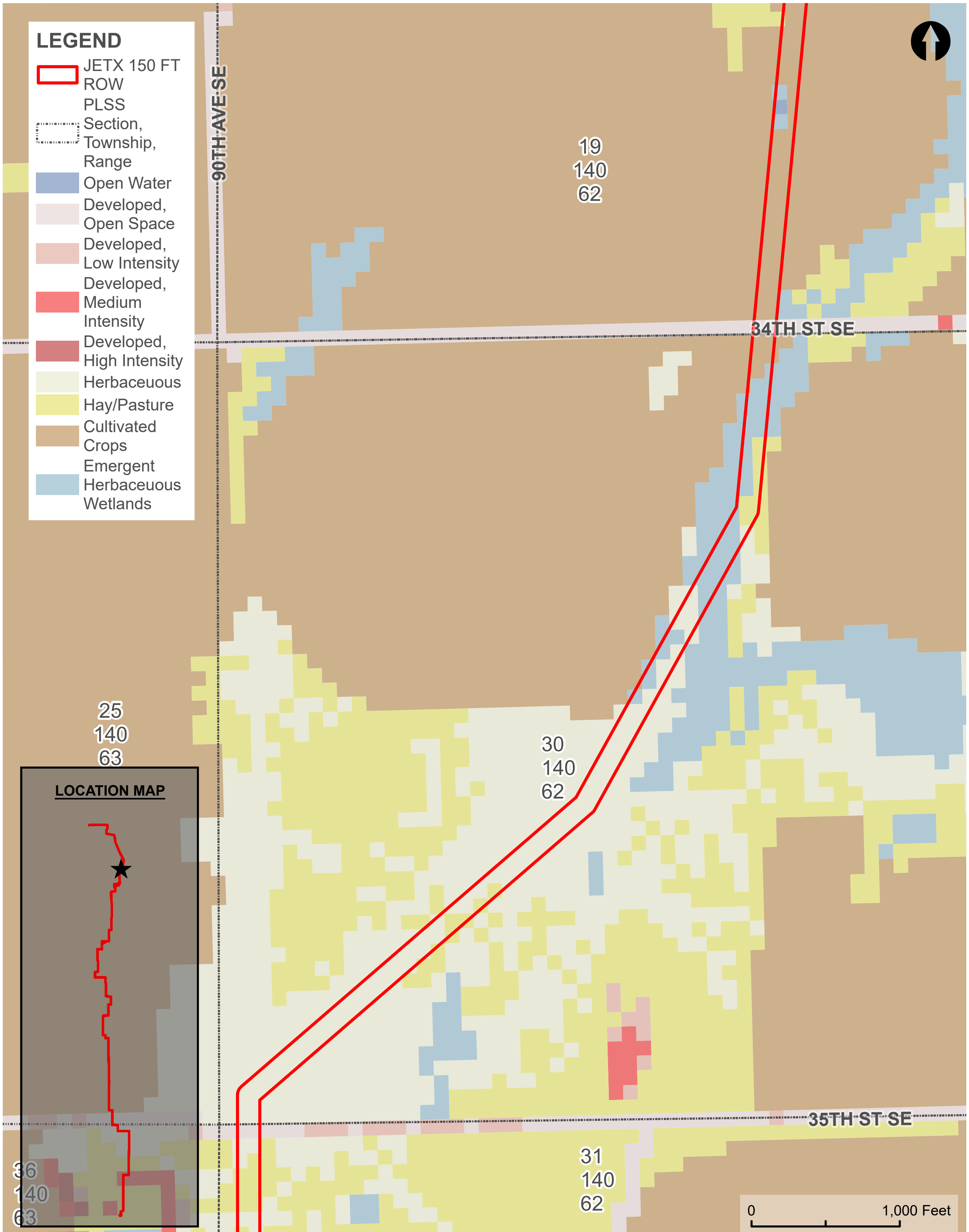


NATIONAL LANDCOVER DATASET (NLCD) MAP



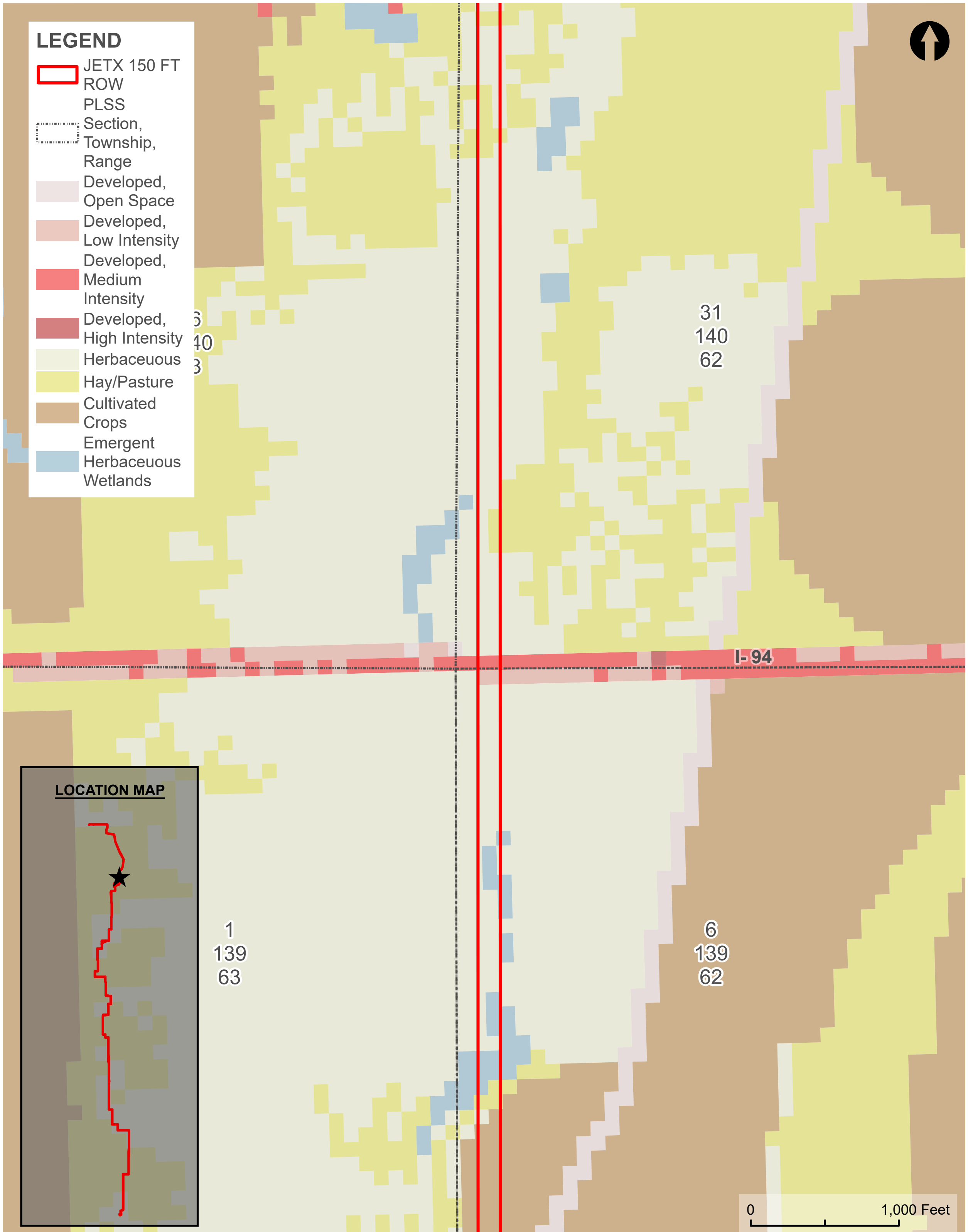
JETx Jamestown to Ellendale

NATIONAL LANDCOVER DATASET (NLCD) MAP

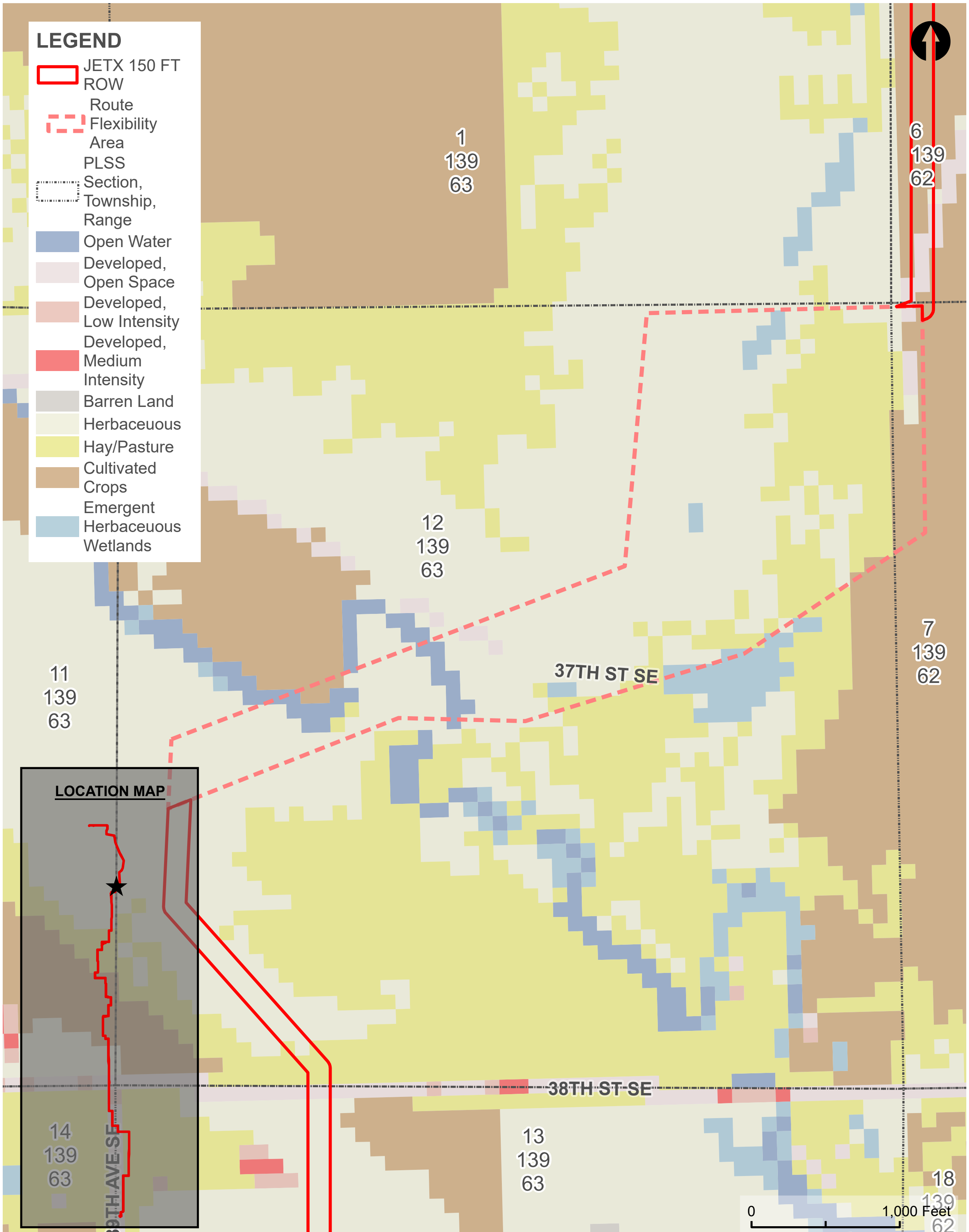


NATIONAL LANDCOVER DATASET (NLCD) MAP

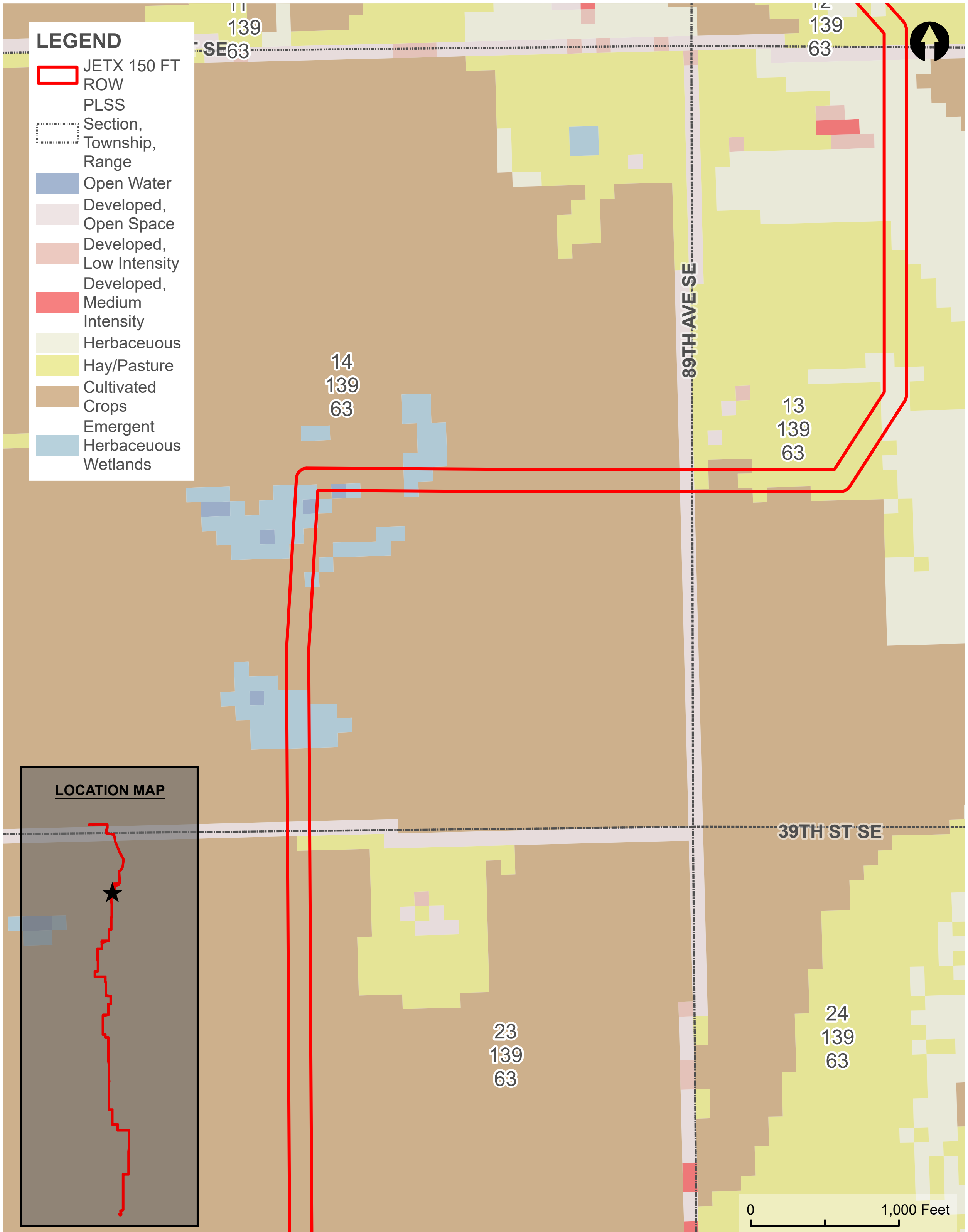
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



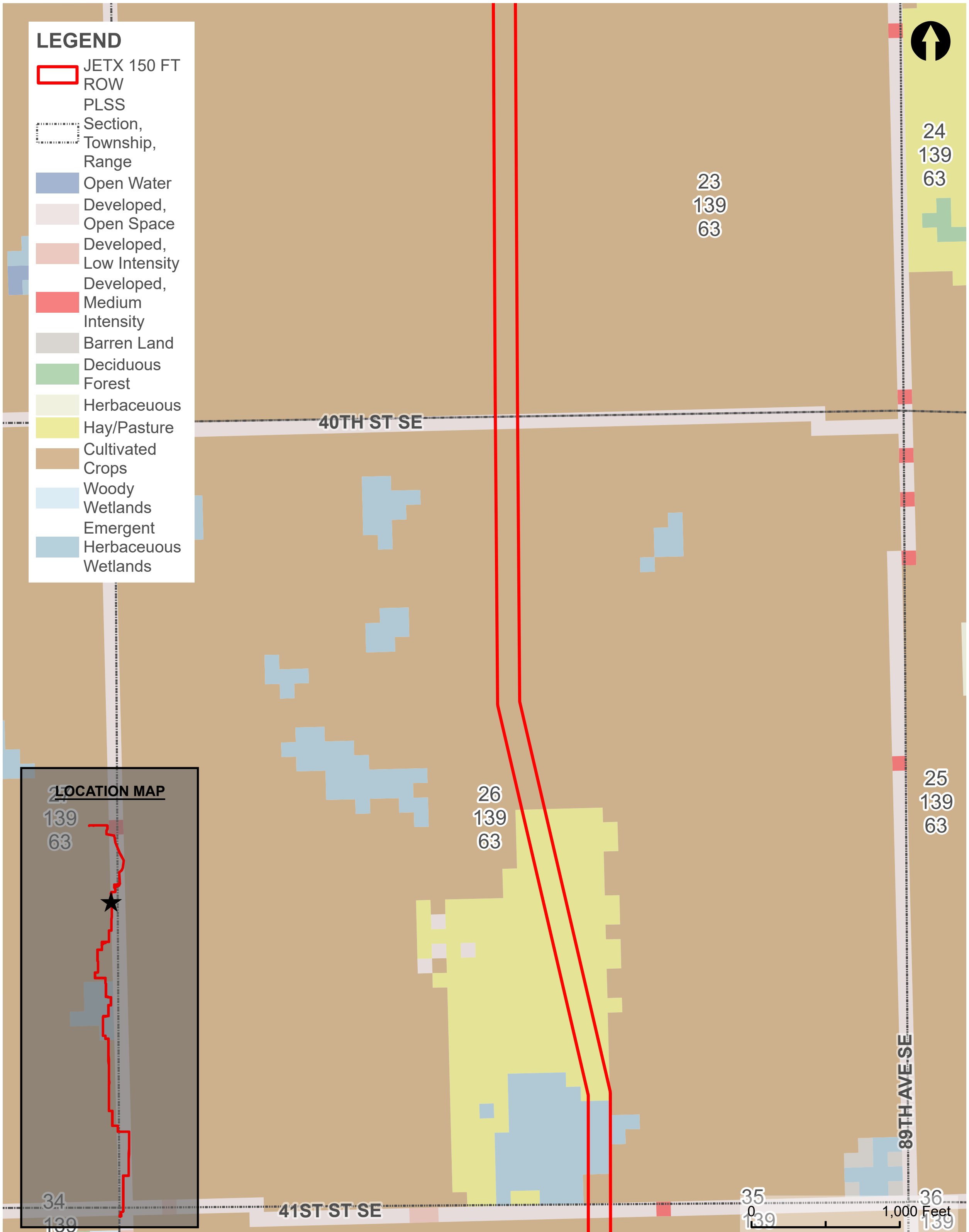
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

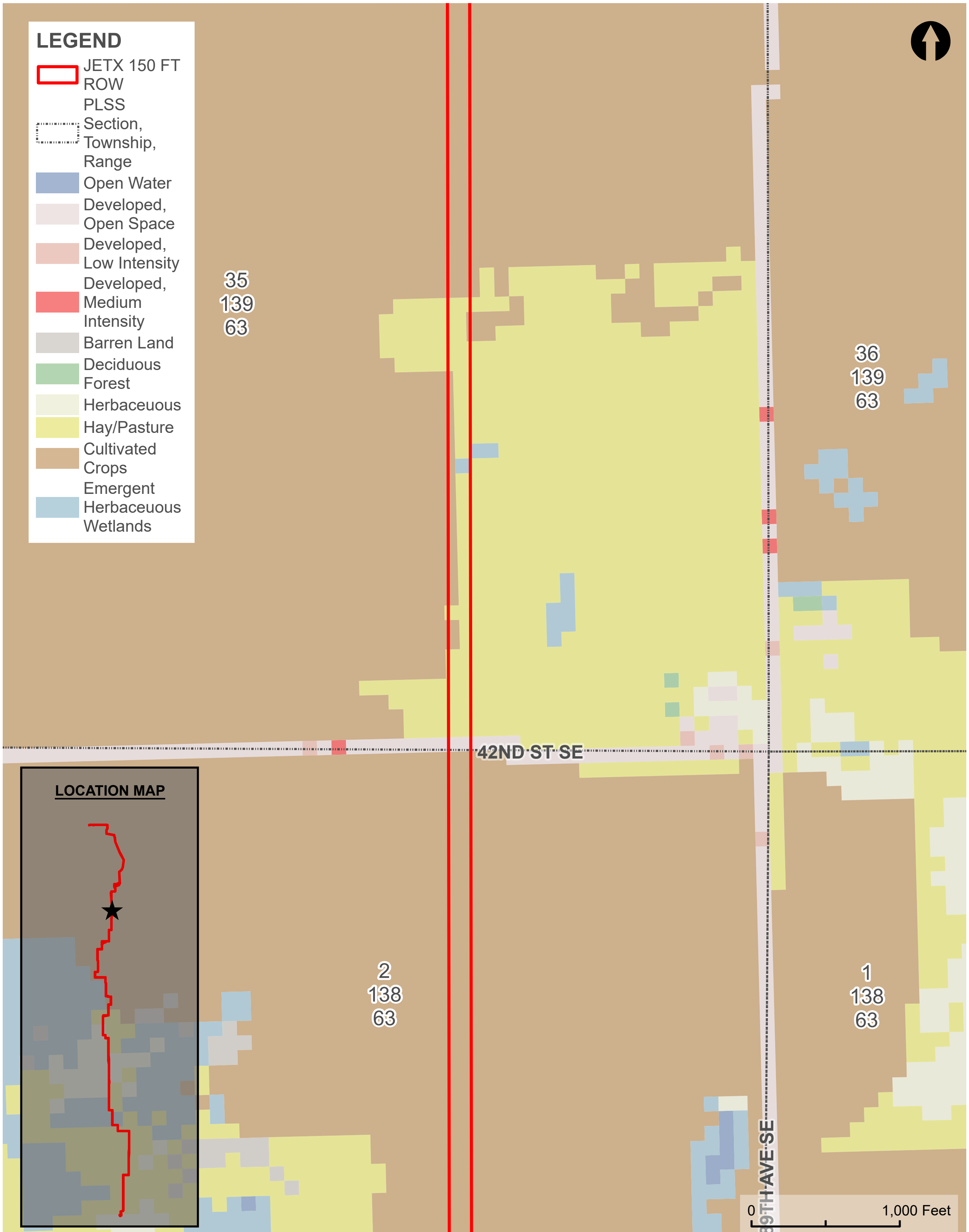


NATIONAL LANDCOVER DATASET (NLCD) MAP

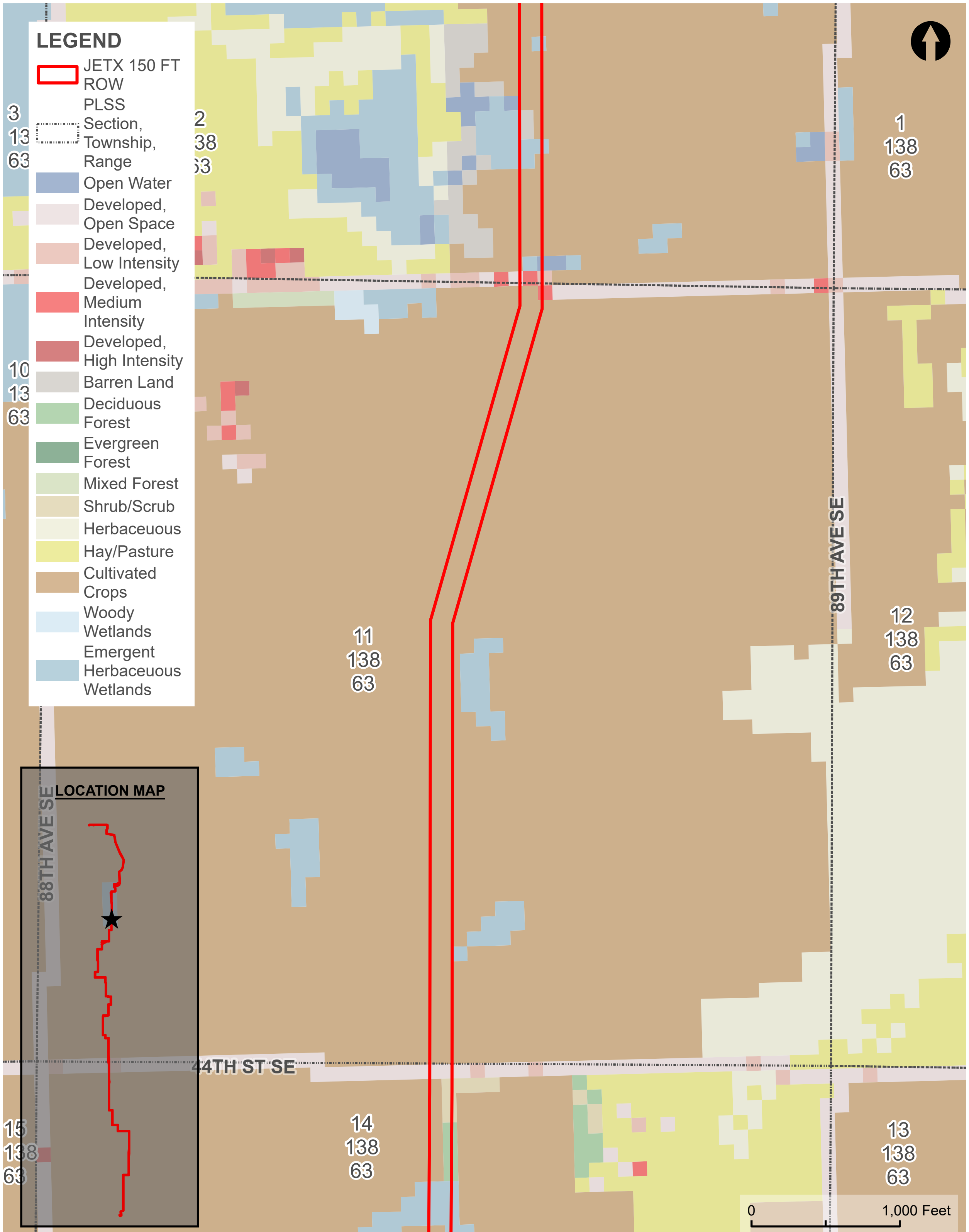


JETx
Jamestown to Ellendale

NATIONAL LANDCOVER DATASET (NLCD) MAP

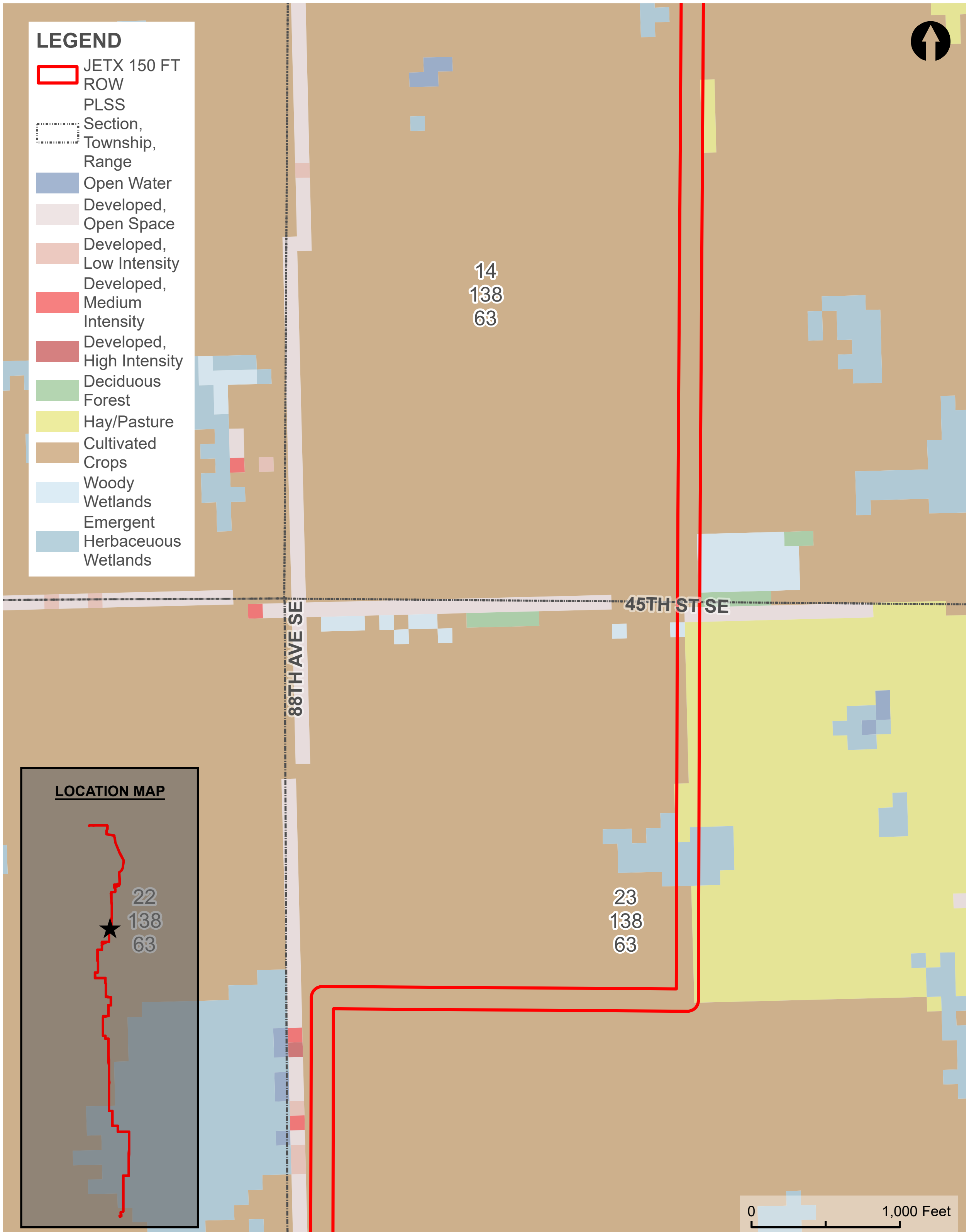


NATIONAL LANDCOVER DATASET (NLCD) MAP

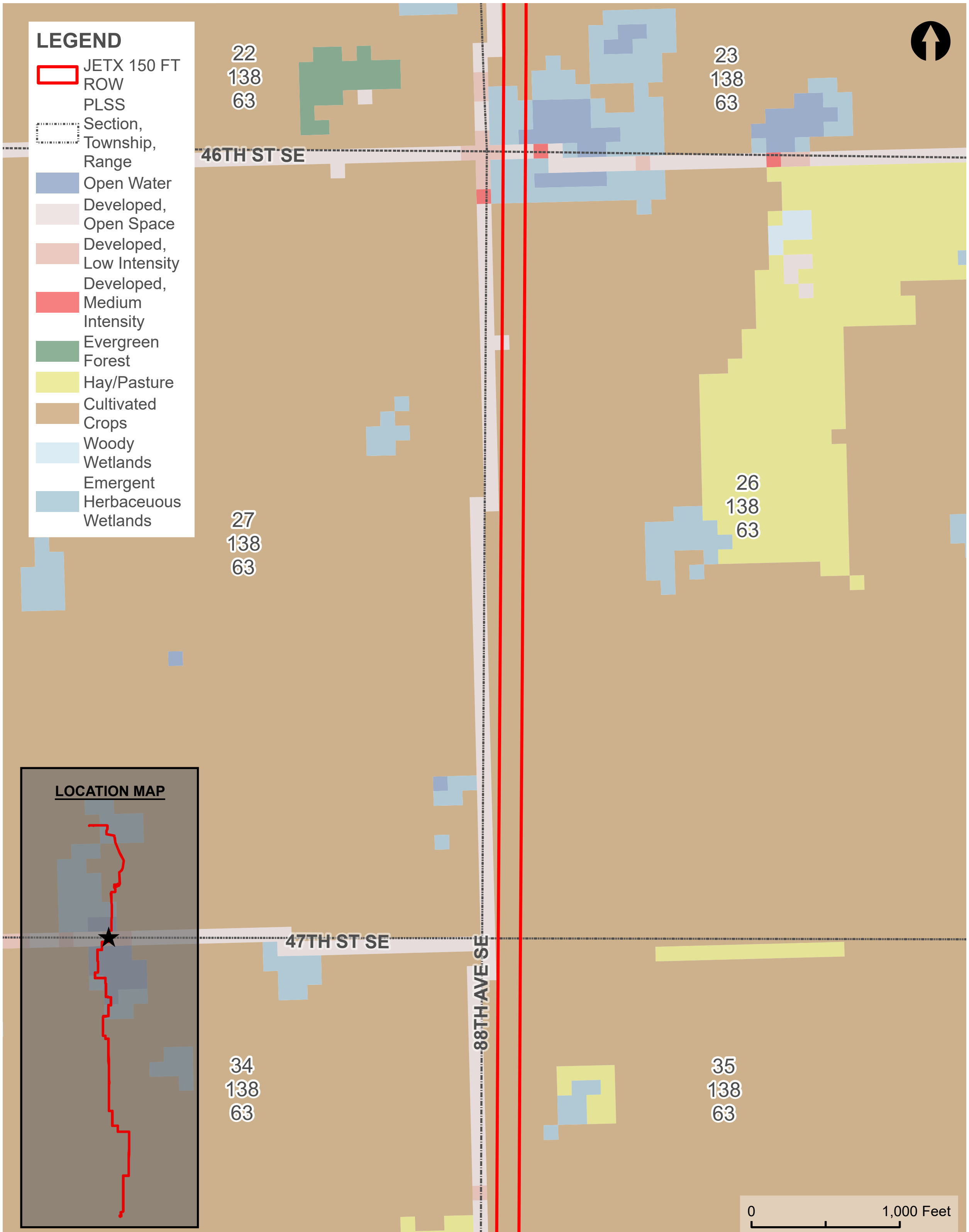


JETx Jamestown to Ellendale

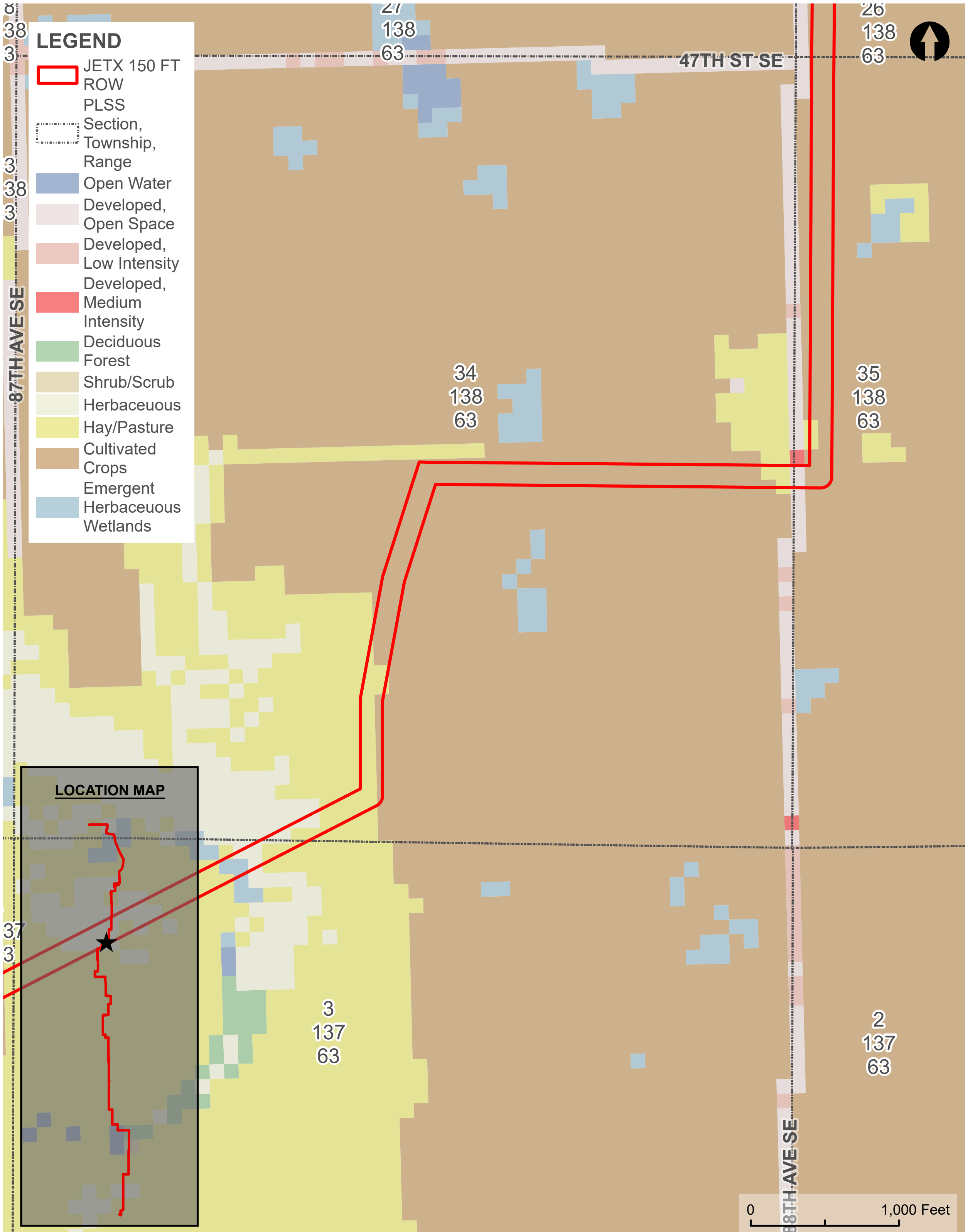
NATIONAL LANDCOVER DATASET (NLCD) MAP



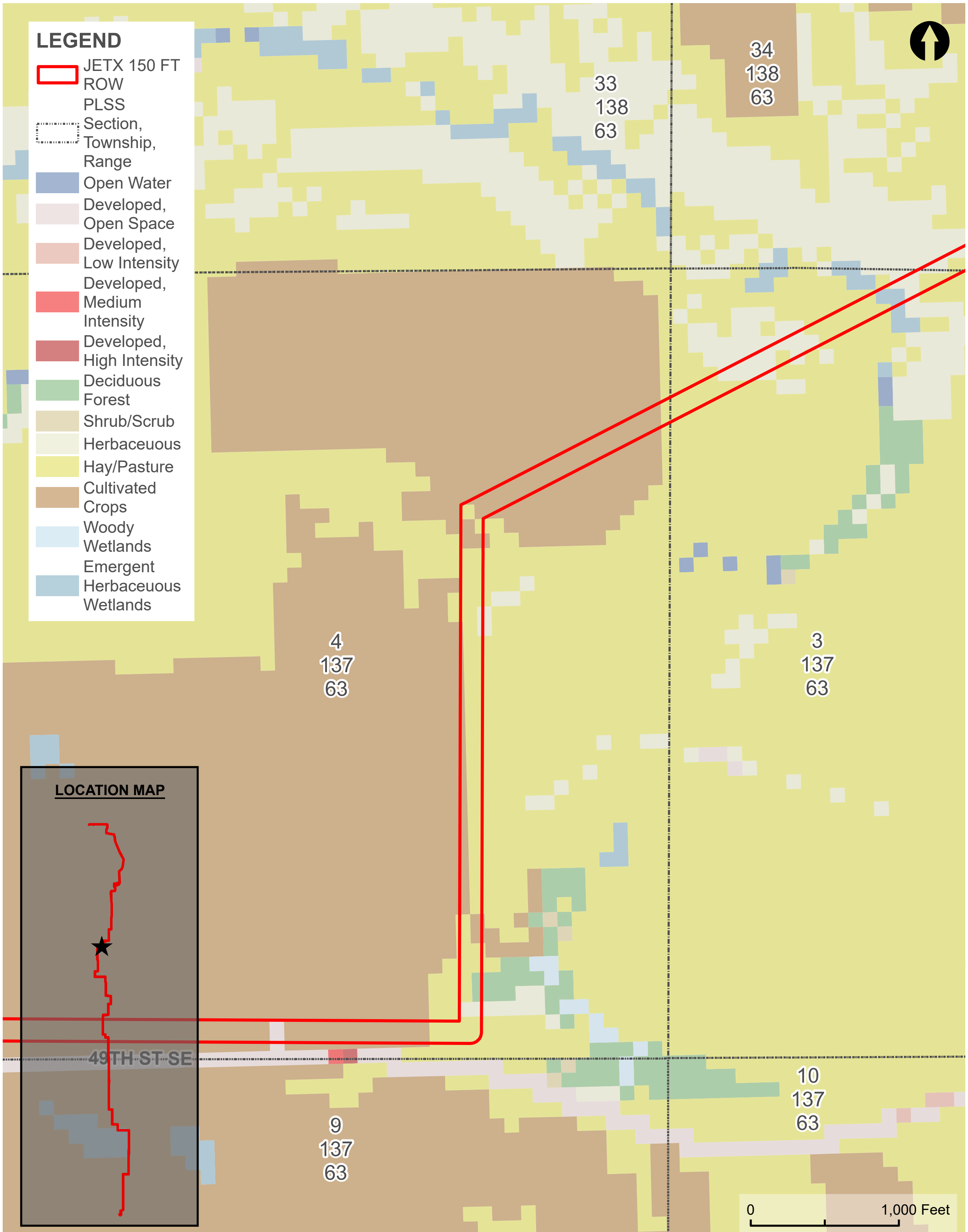
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

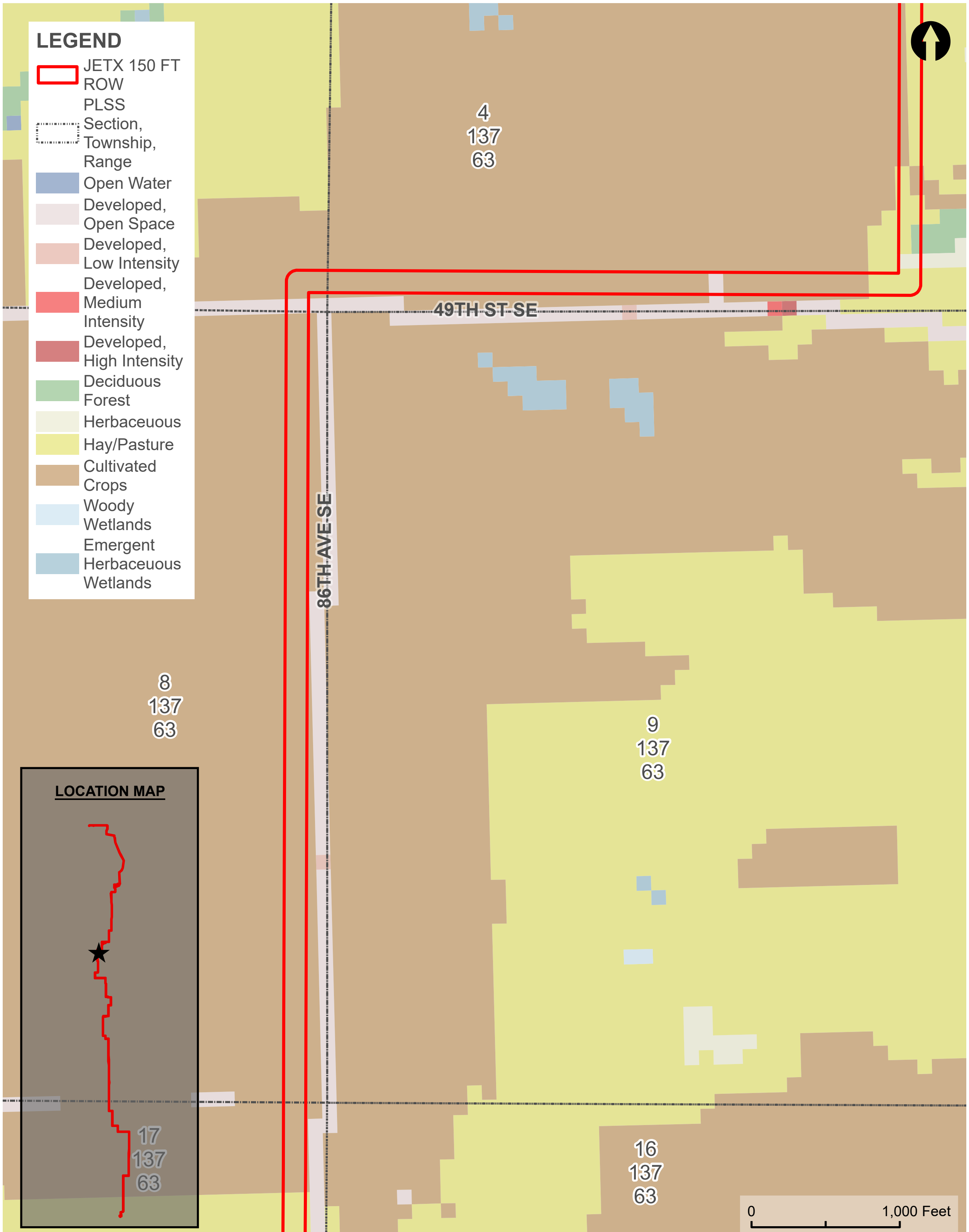


NATIONAL LANDCOVER DATASET (NLCD) MAP



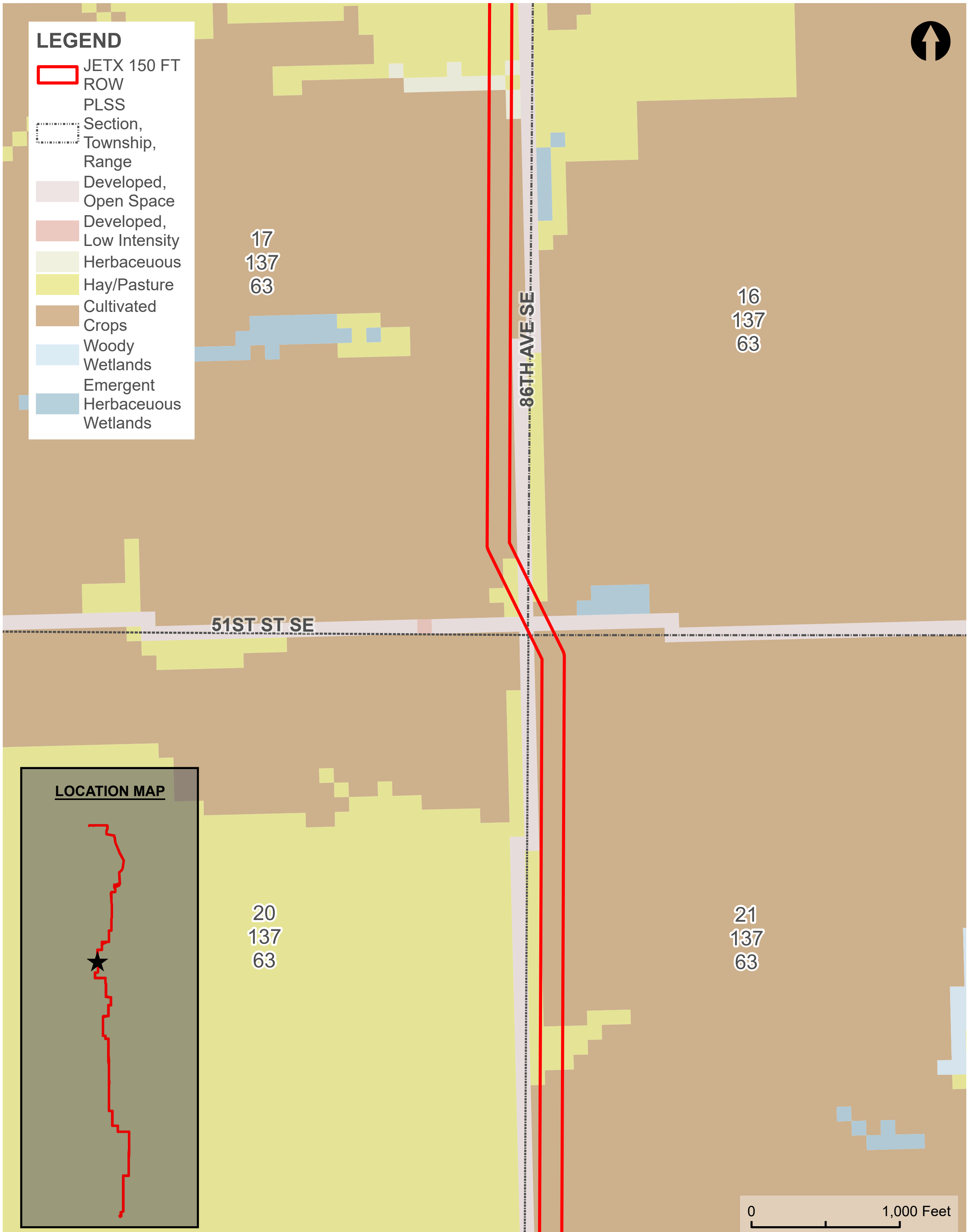
JETx
Jamestown to Ellendale

NATIONAL LANDCOVER DATASET (NLCD) MAP

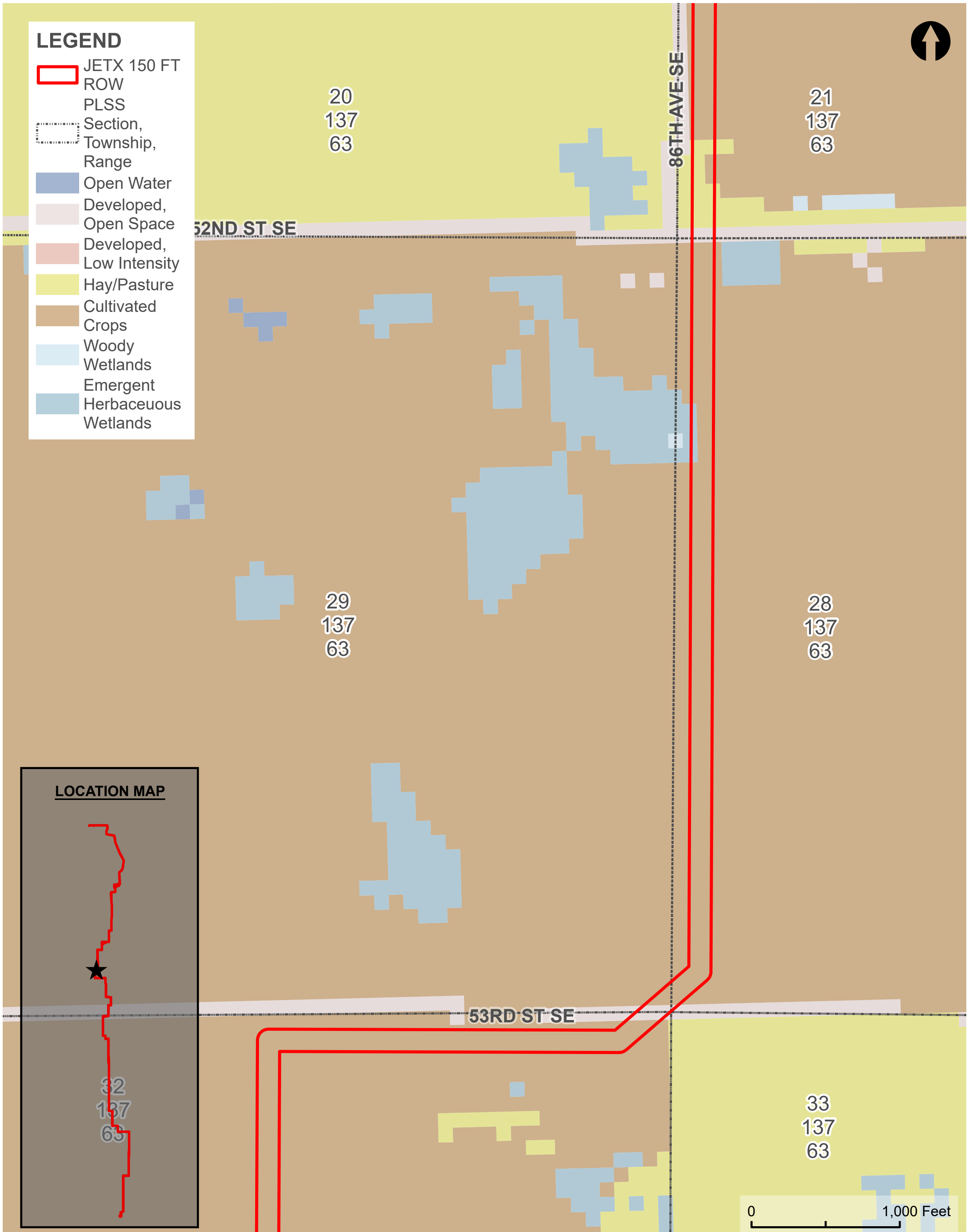


NATIONAL LANDCOVER DATASET (NLCD) MAP

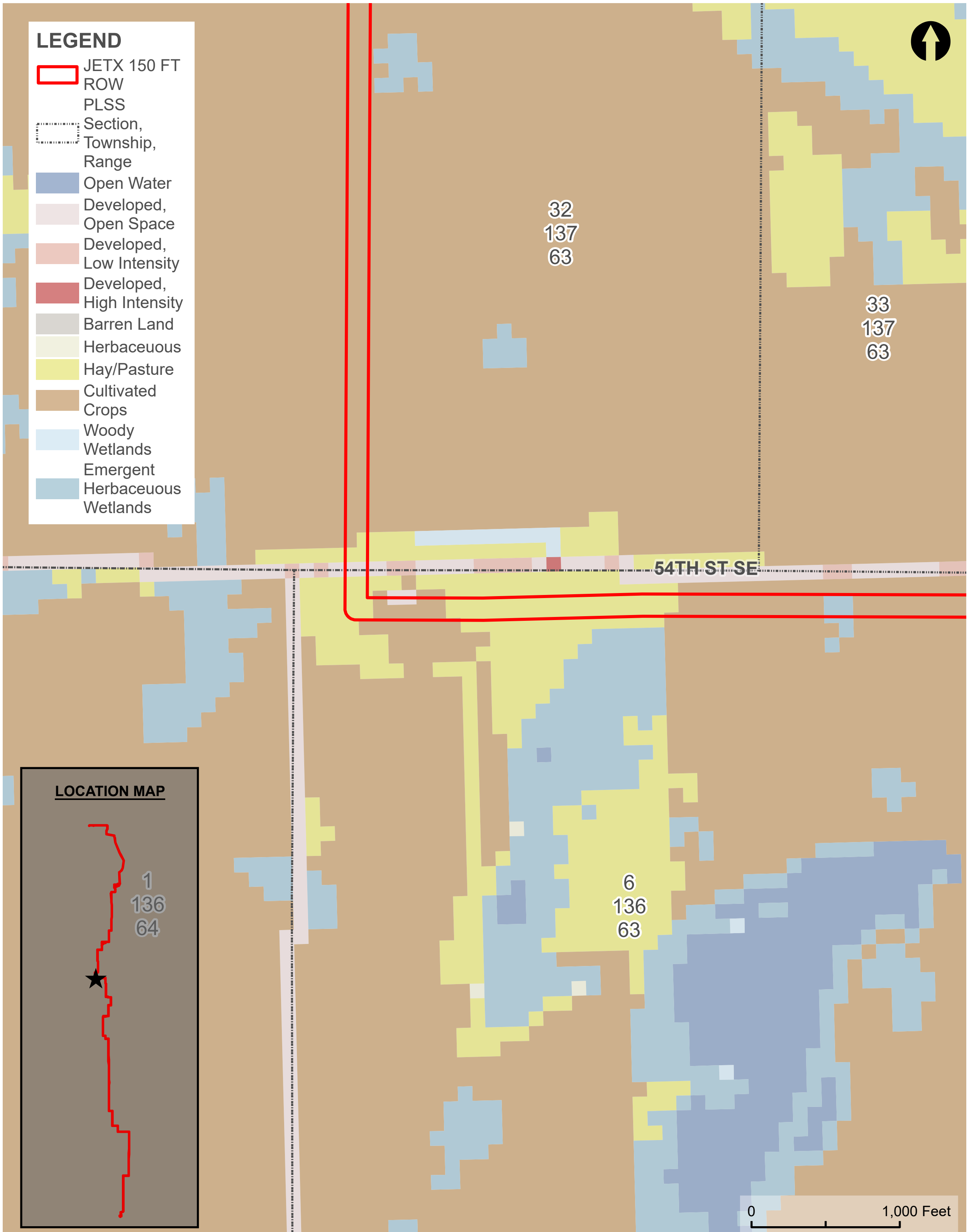
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



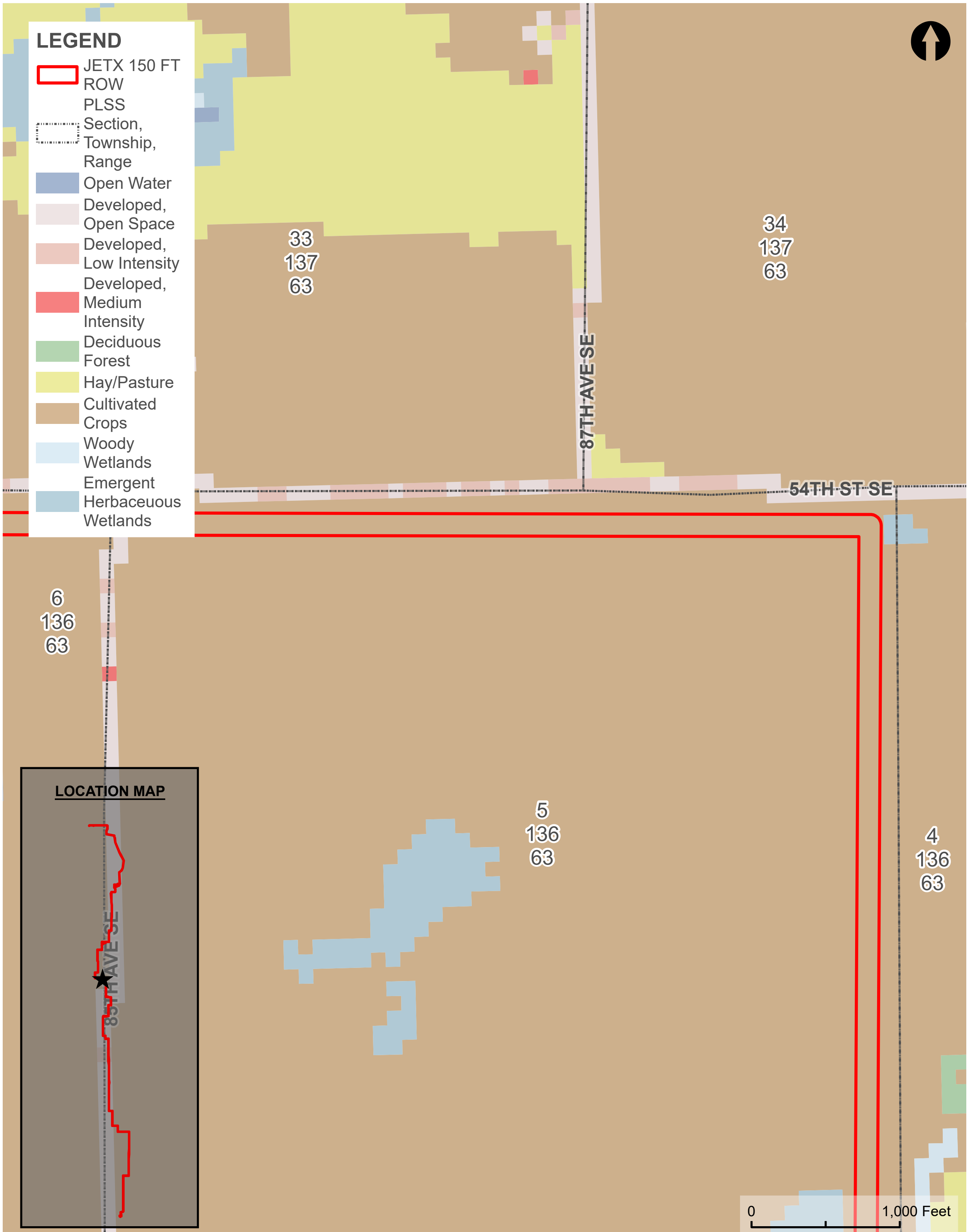
NATIONAL LANDCOVER DATASET (NLCD) MAP



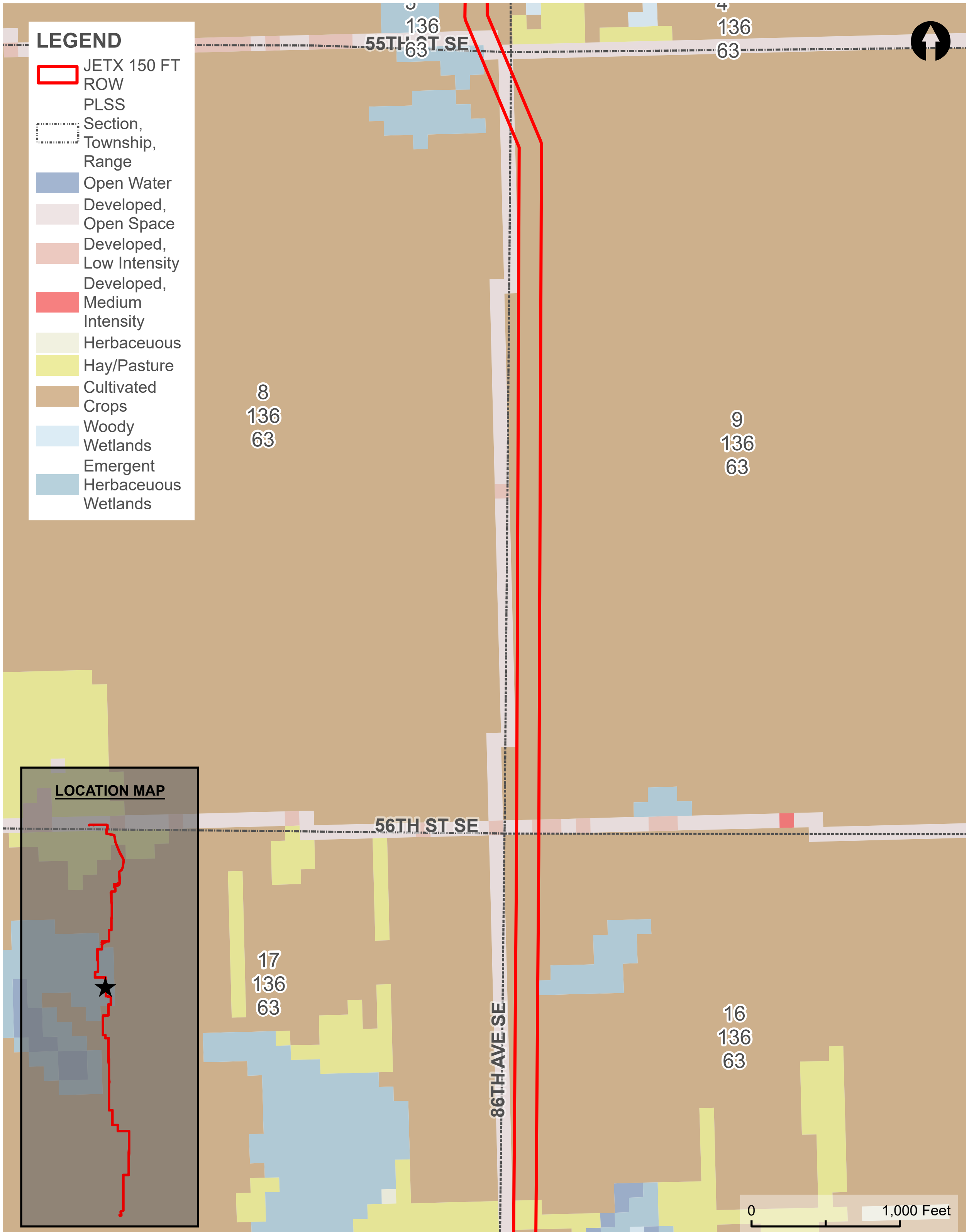
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP



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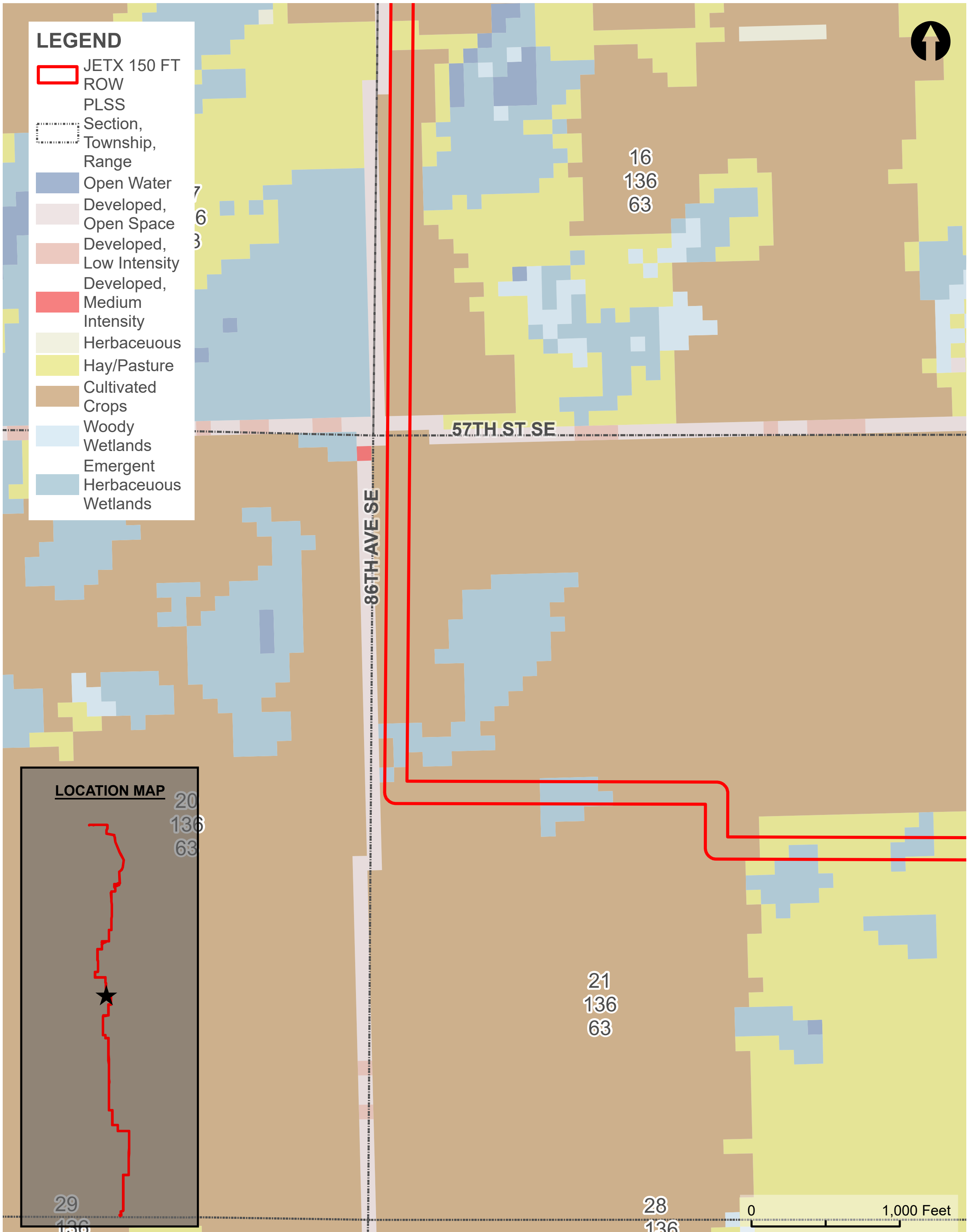
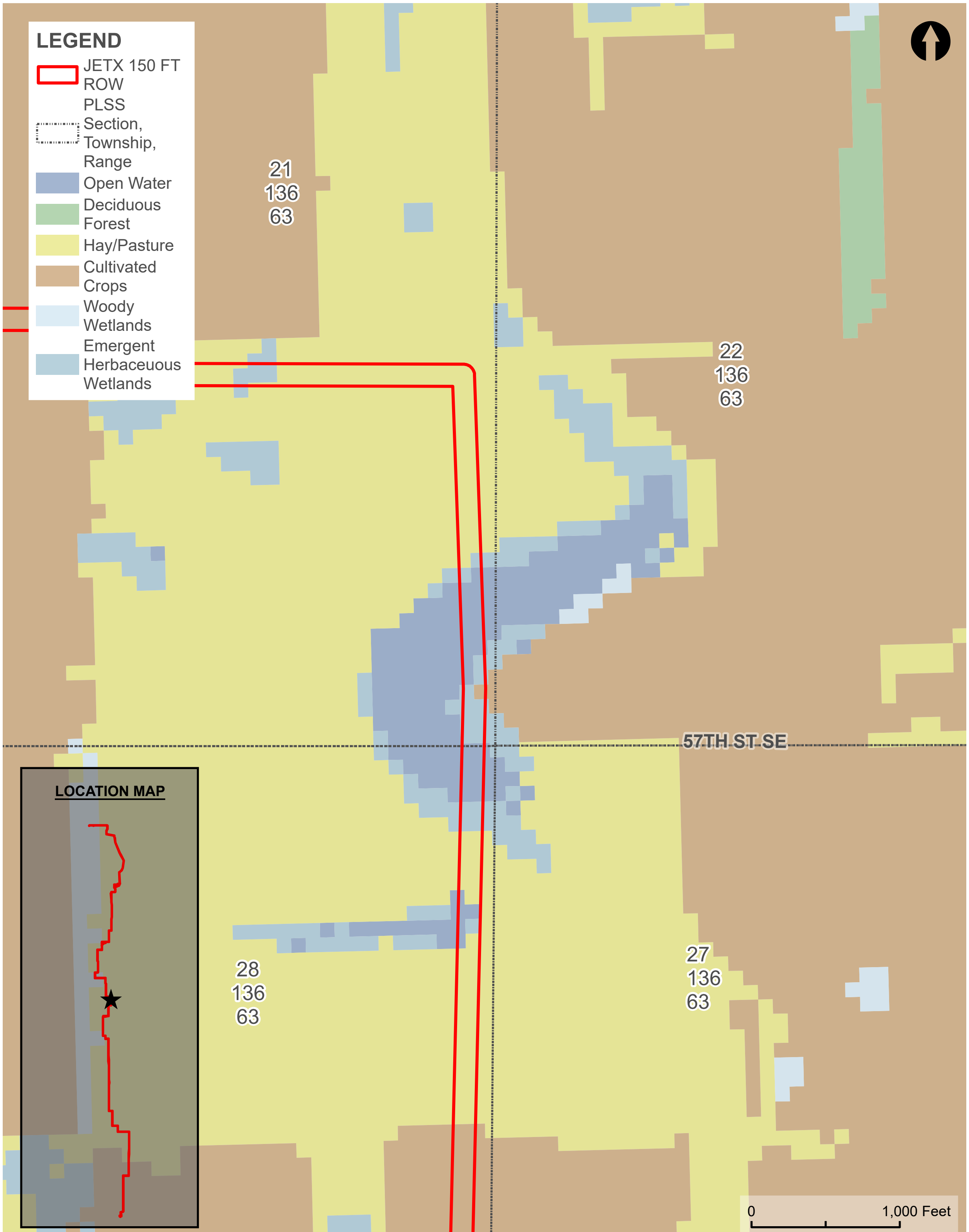
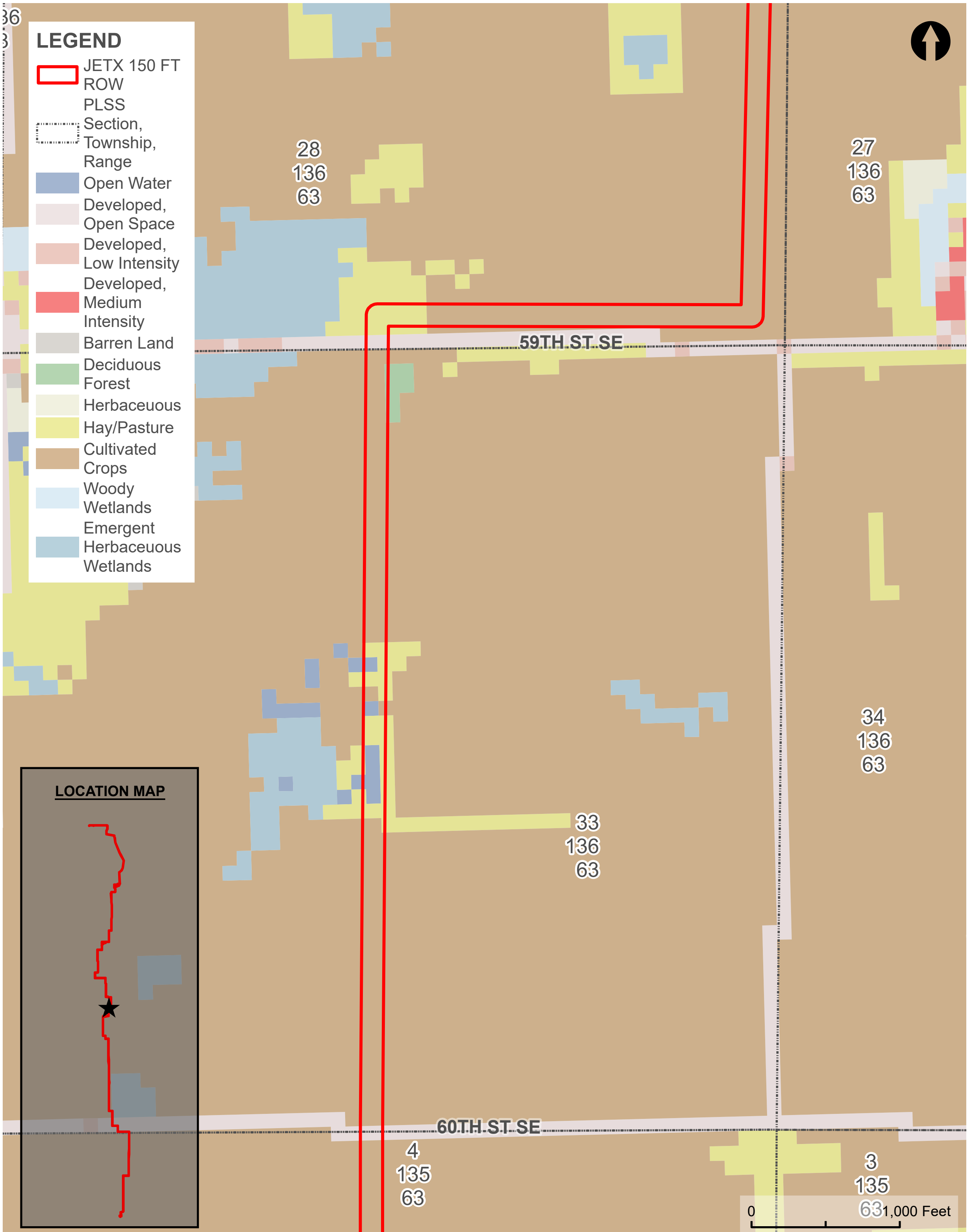


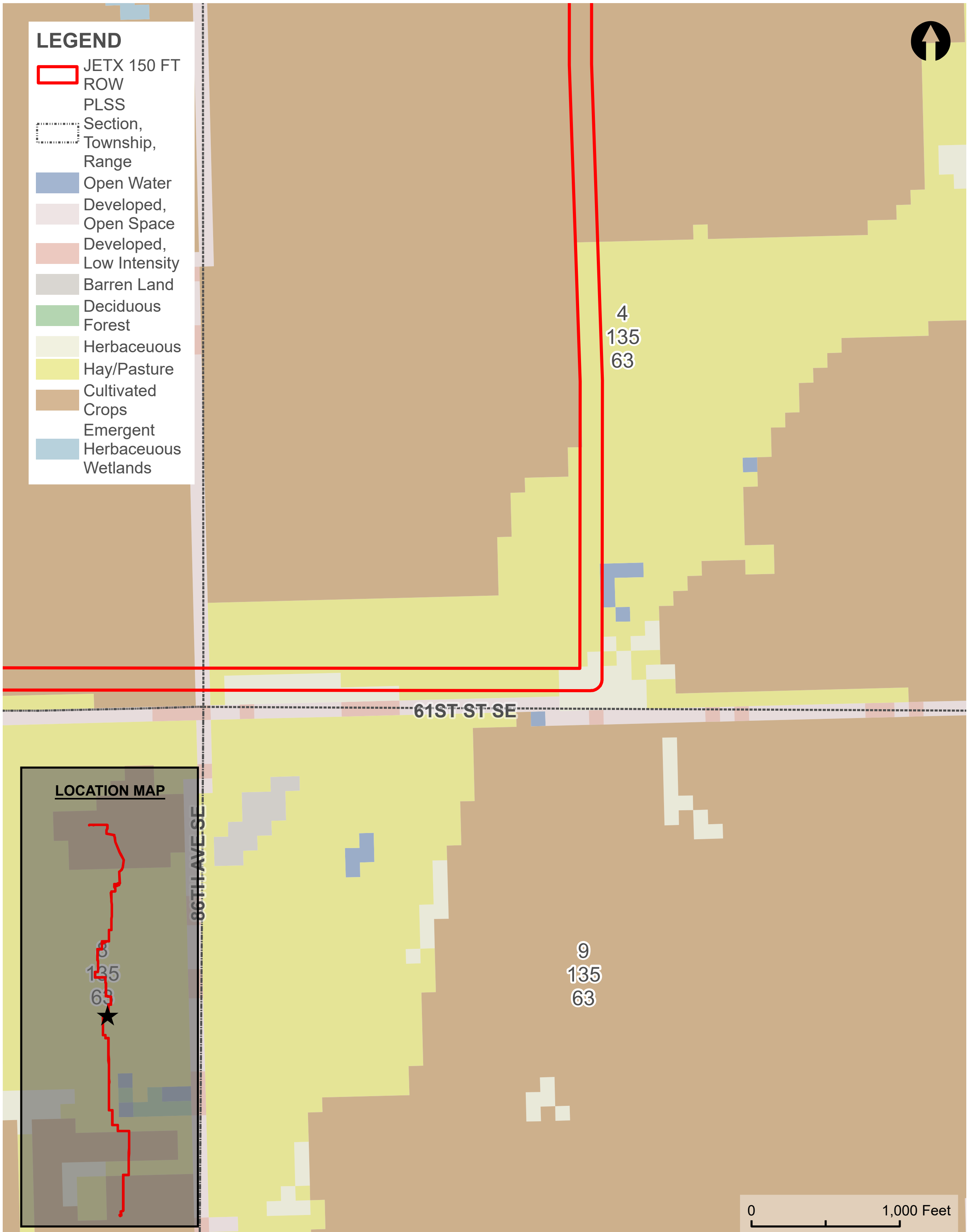
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

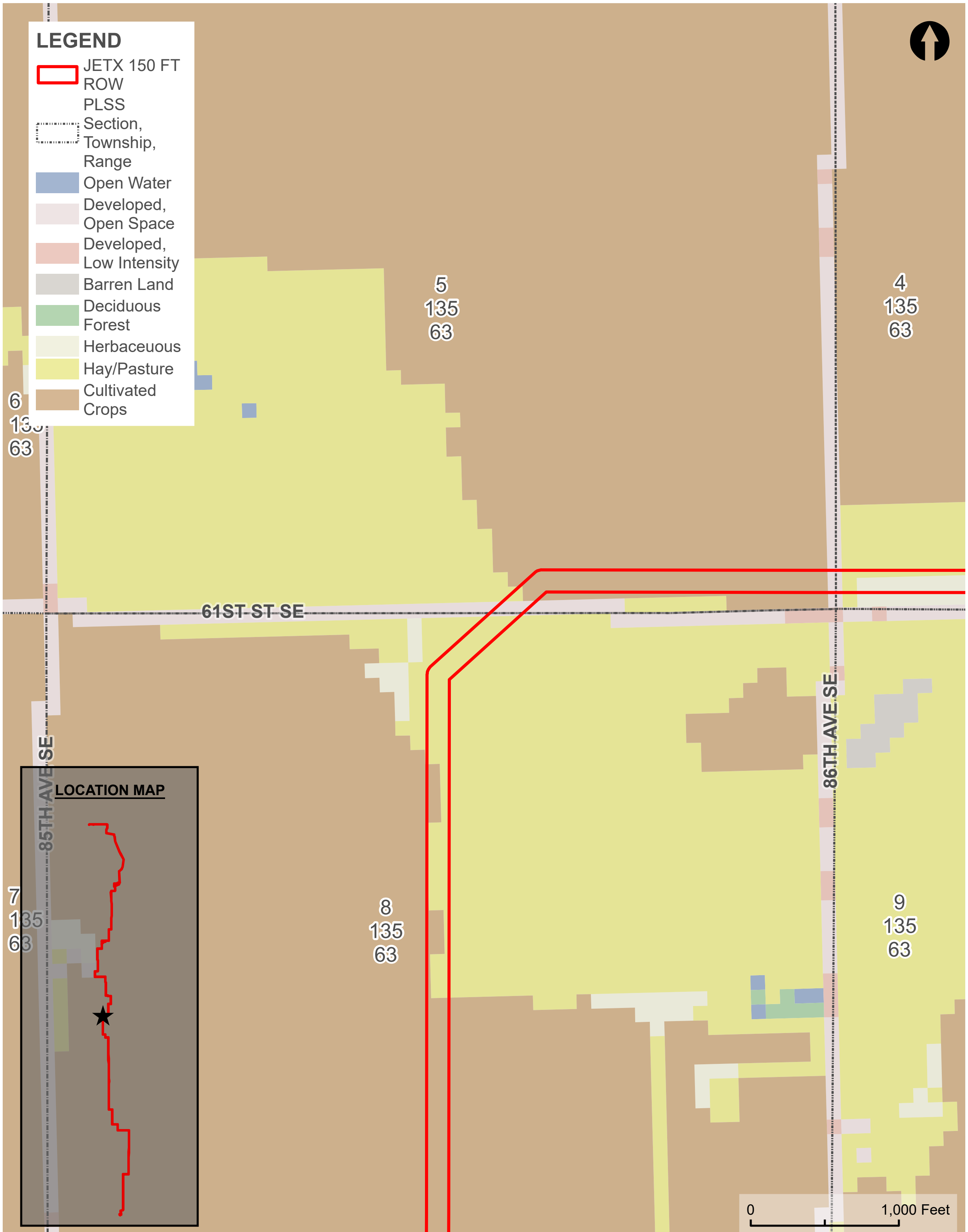


NATIONAL LANDCOVER DATASET (NLCD) MAP

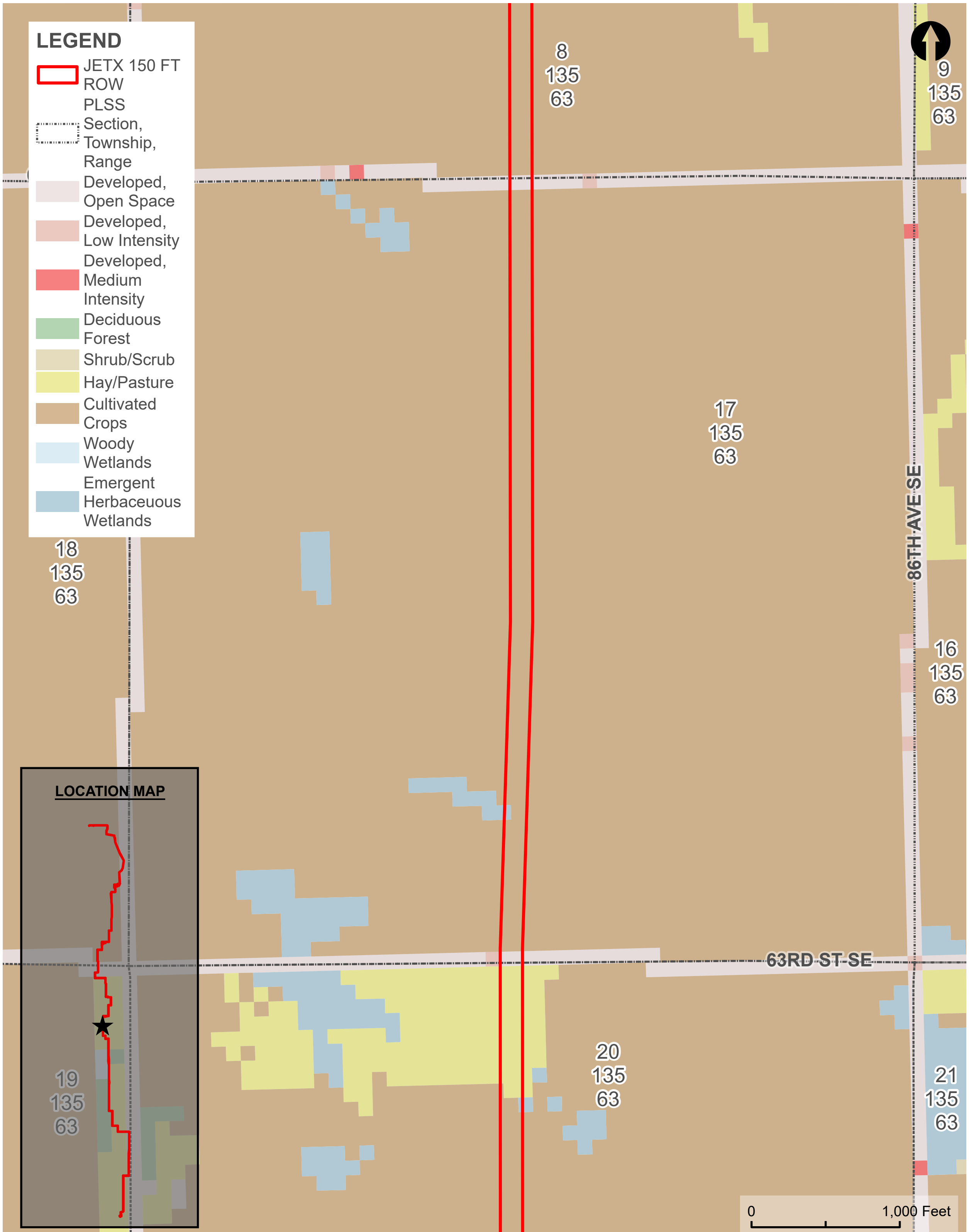


JETx Jamestown to Ellendale

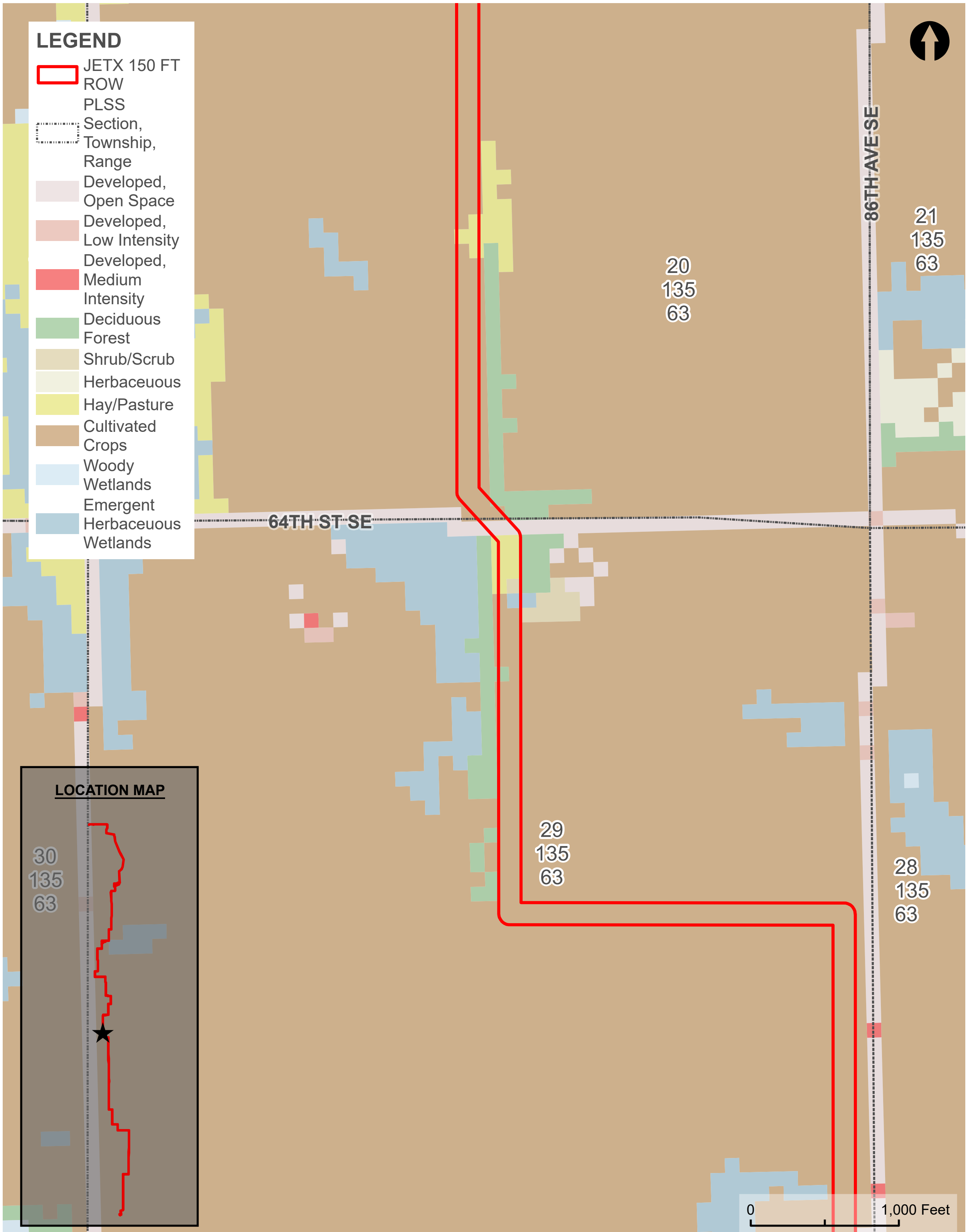
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

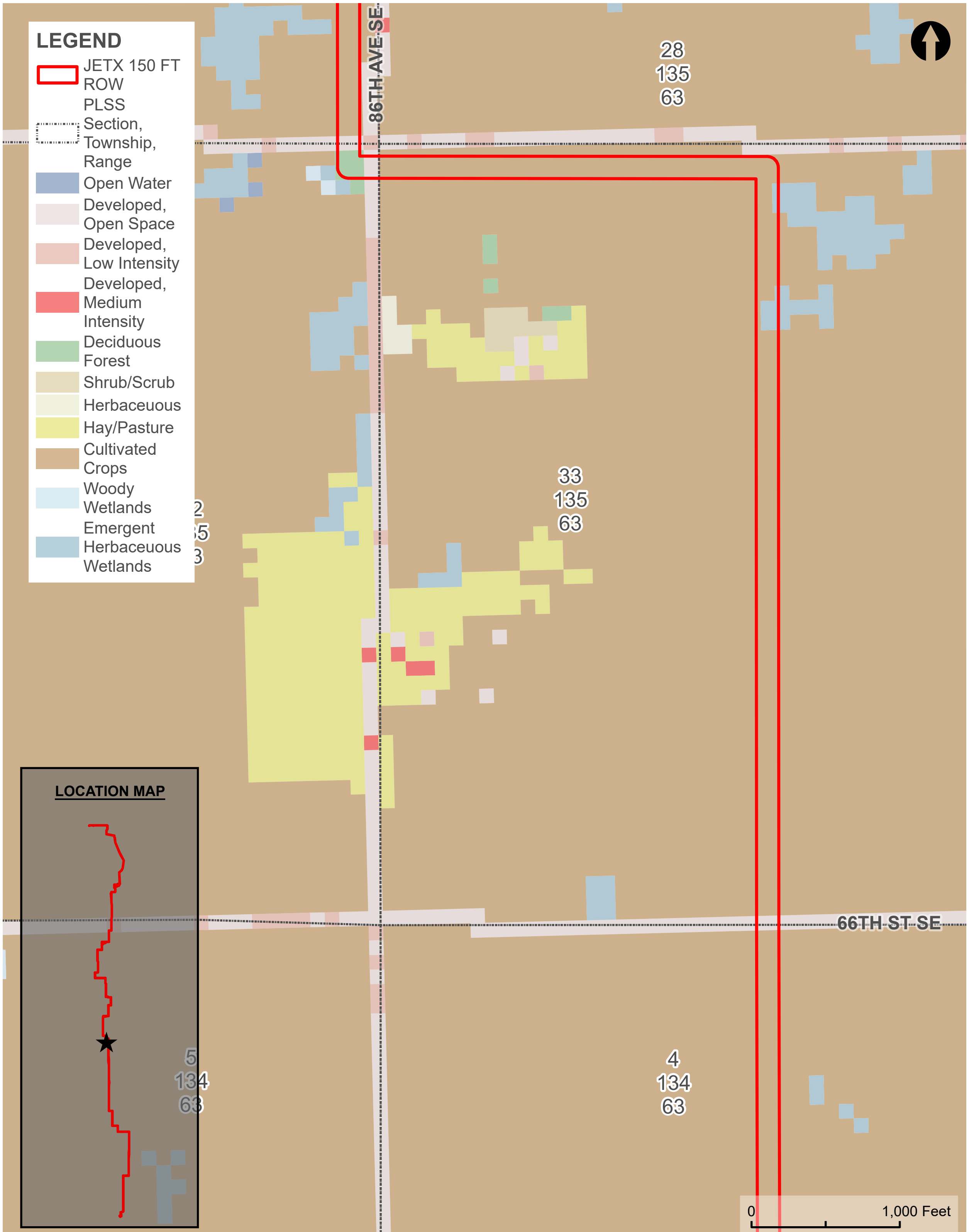


NATIONAL LANDCOVER DATASET (NLCD) MAP

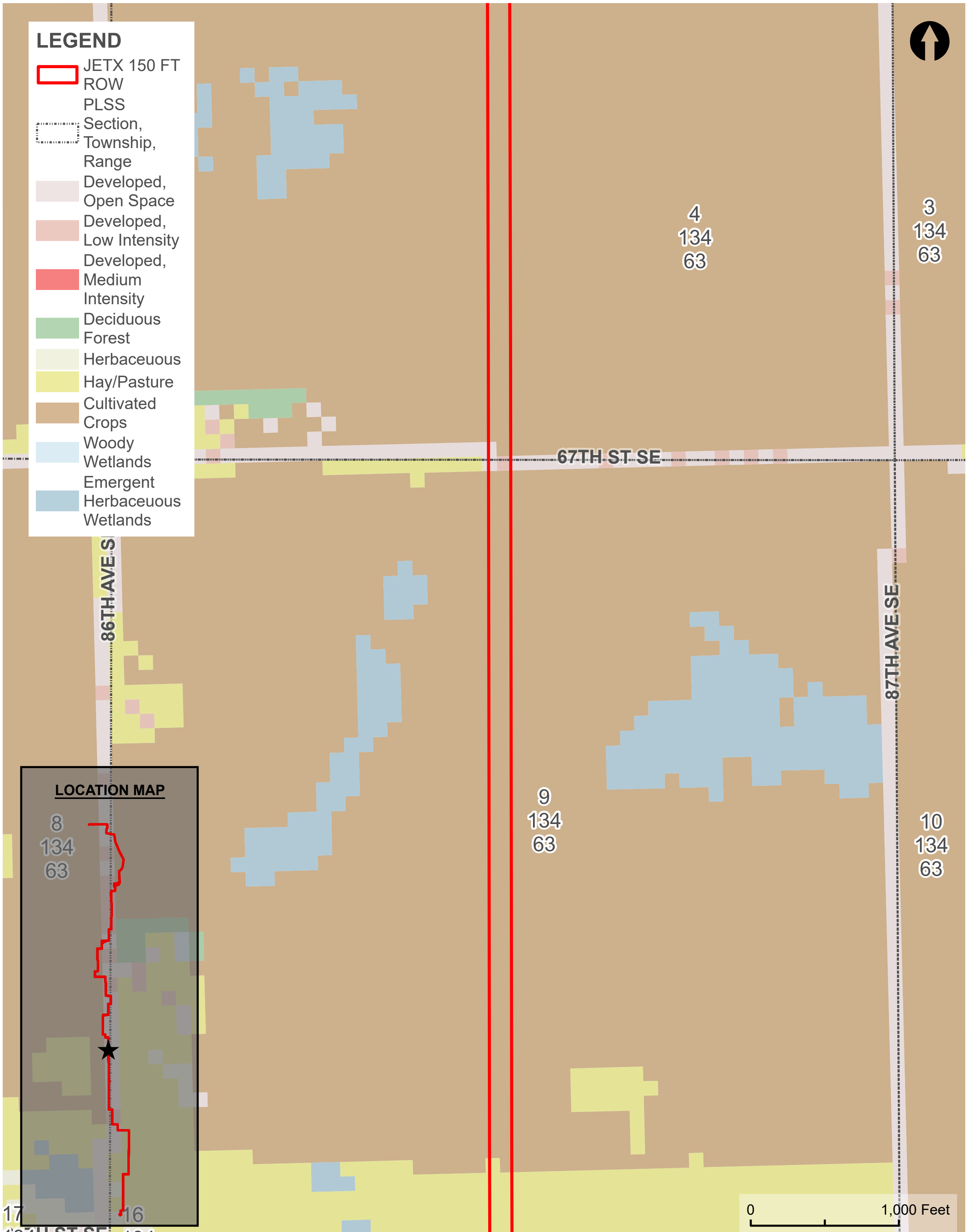


NATIONAL LANDCOVER DATASET (NLCD) MAP

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

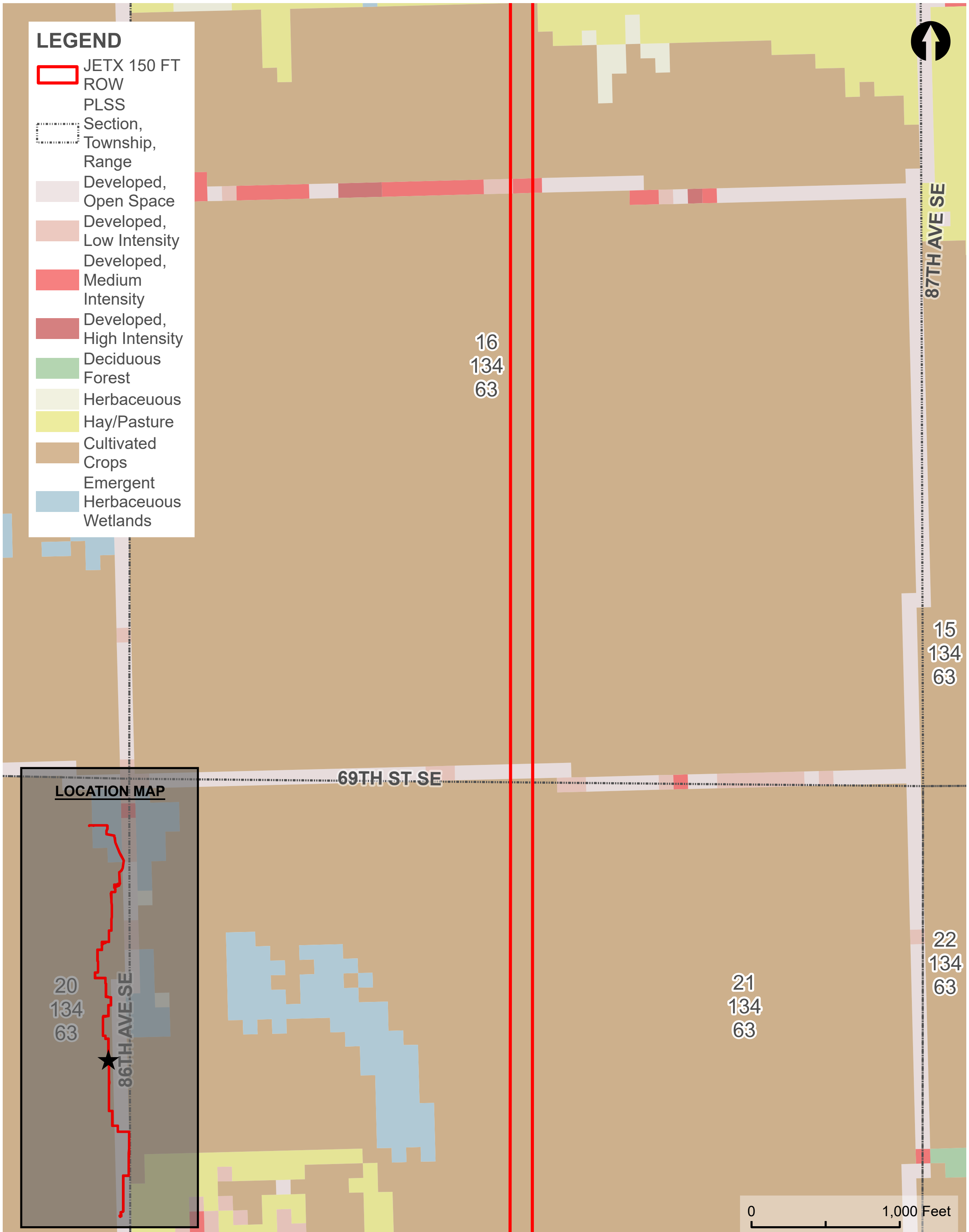


NATIONAL LANDCOVER DATASET (NLCD) MAP

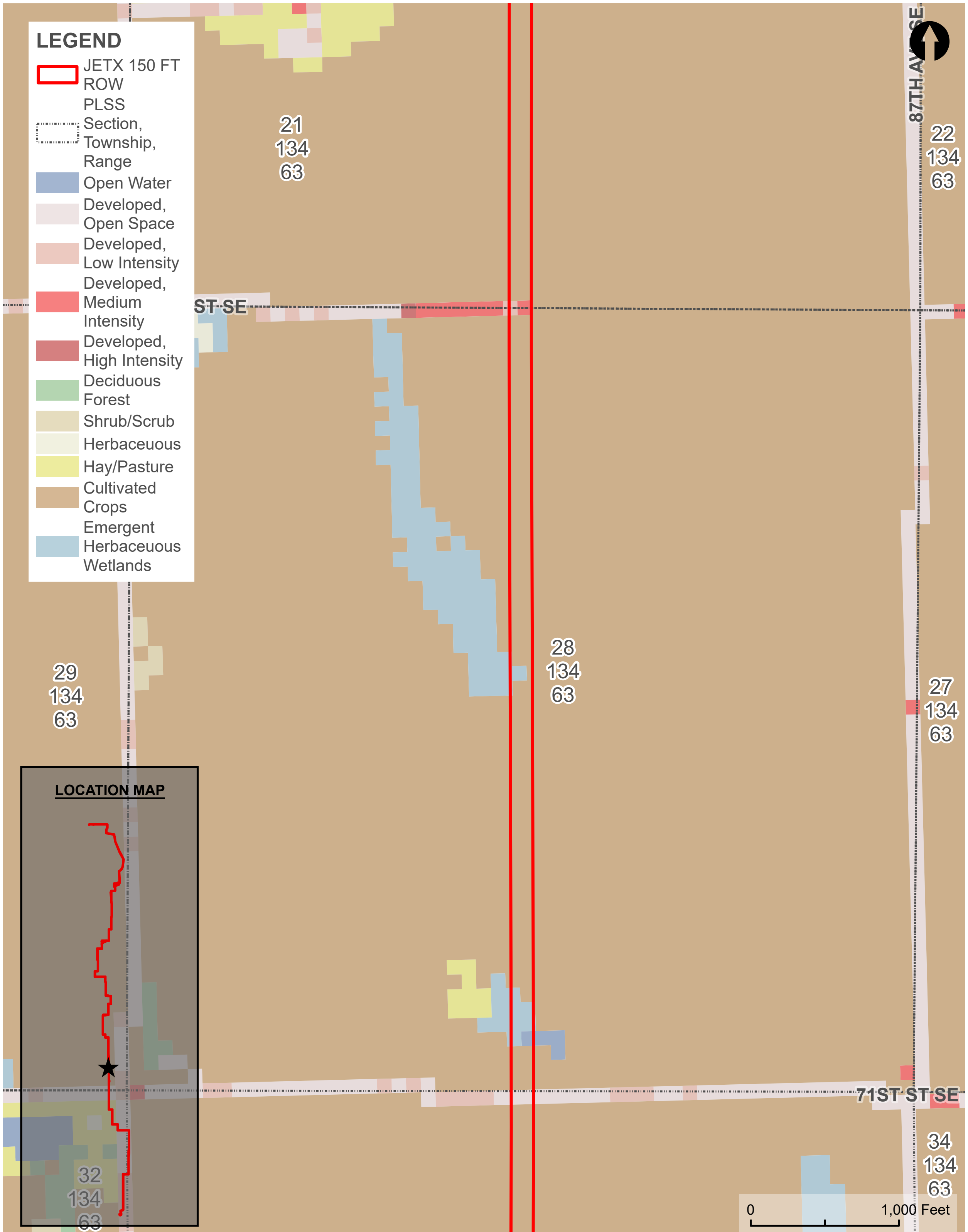


NATIONAL LANDCOVER DATASET (NLCD) MAP

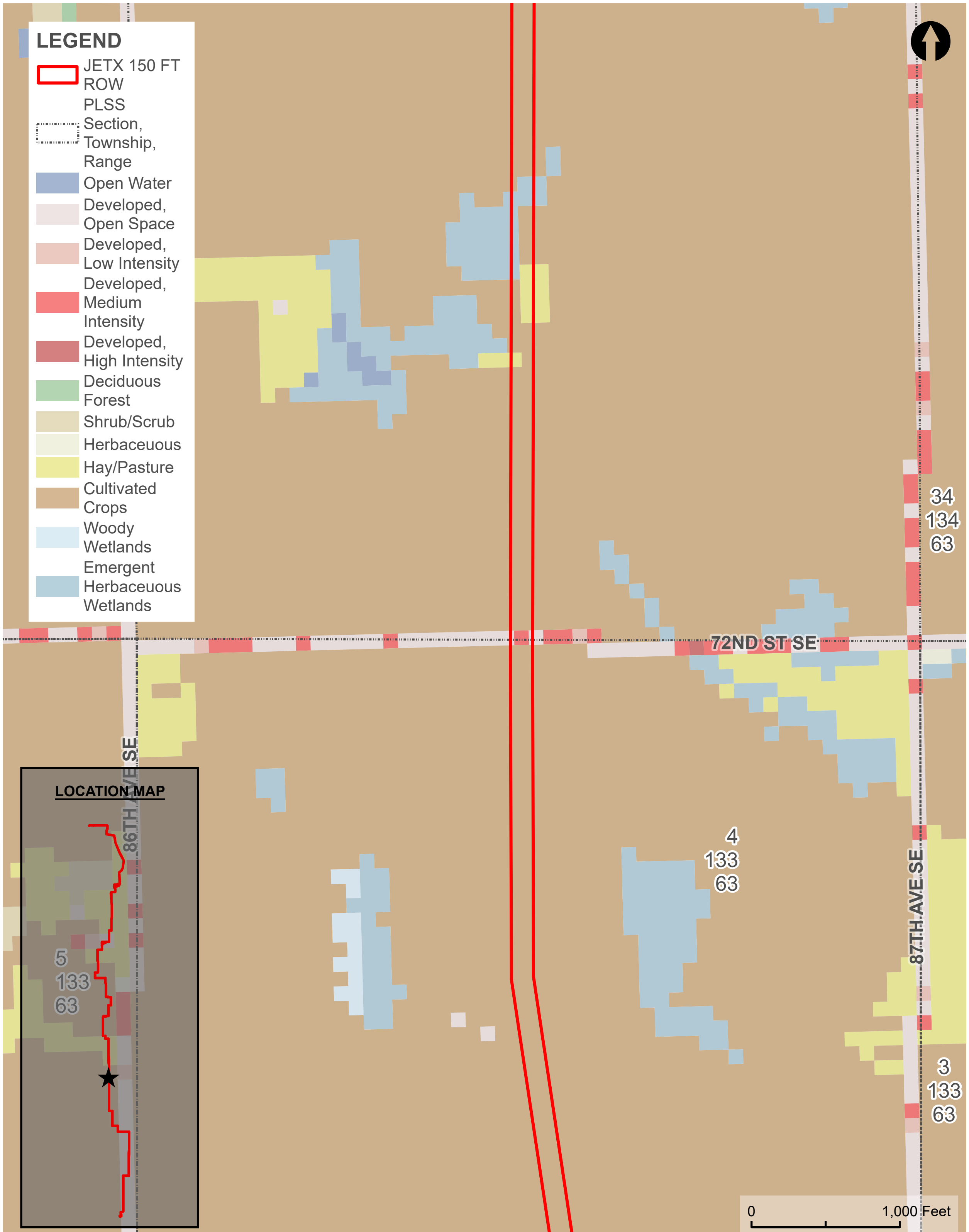
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



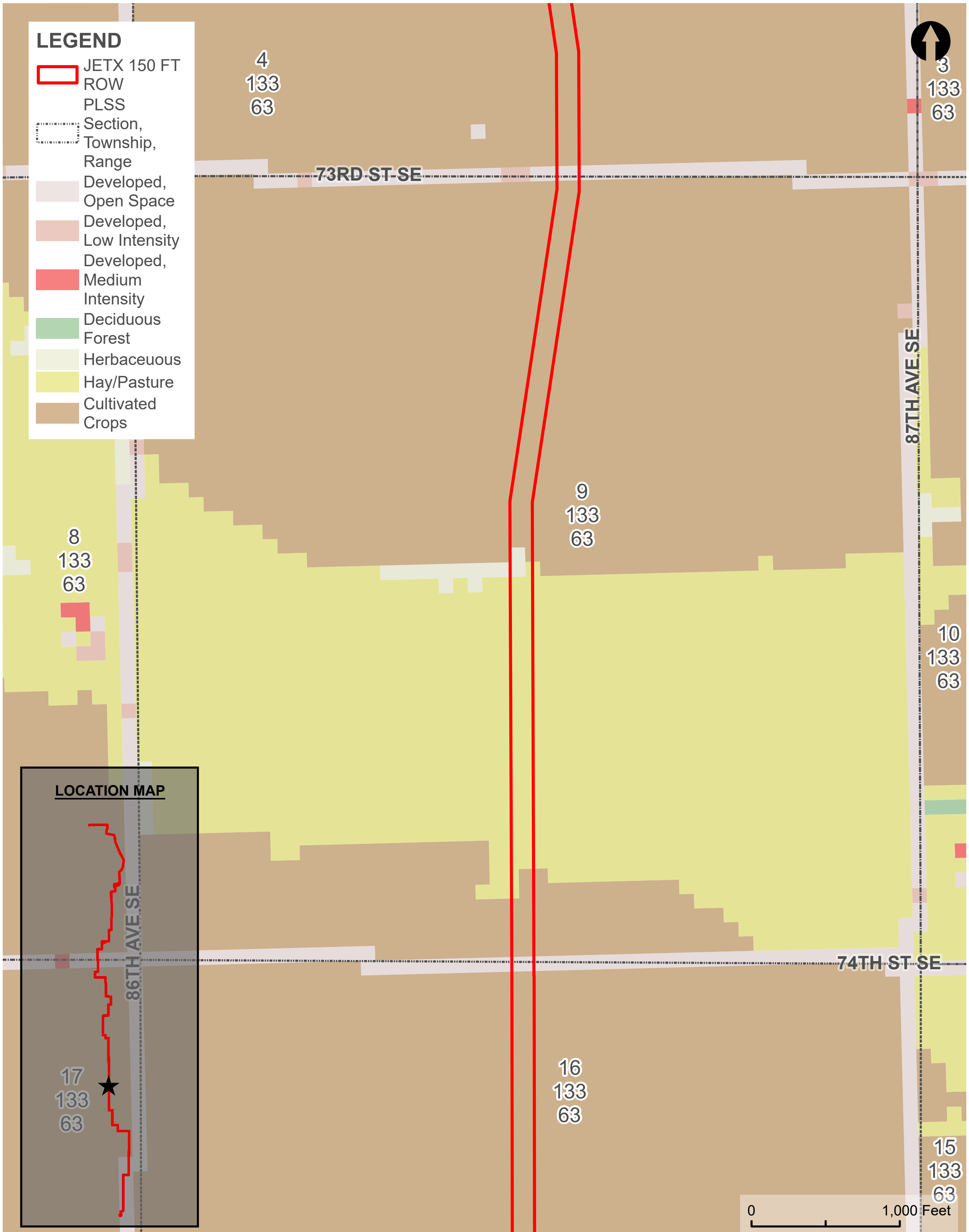
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

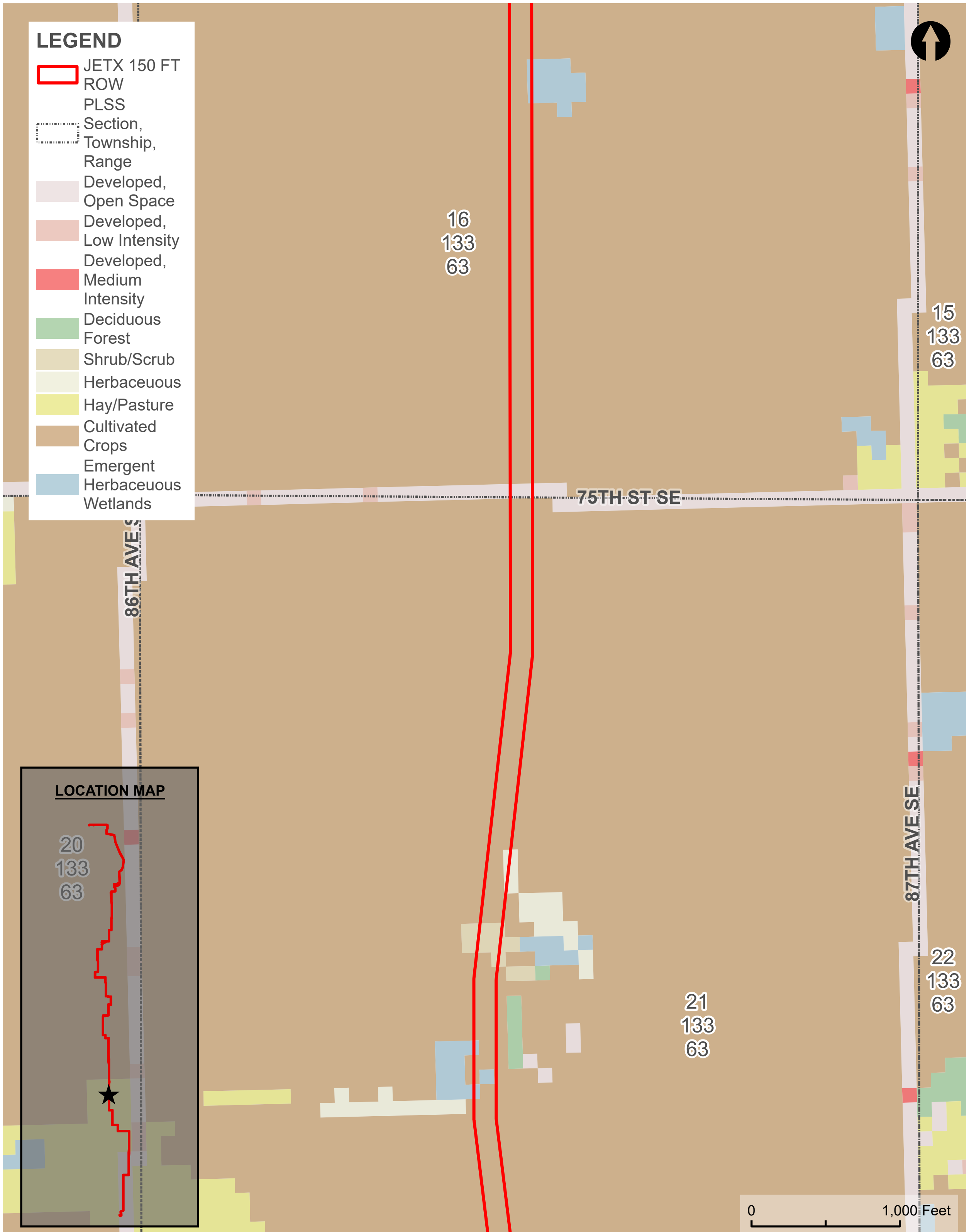


NATIONAL LANDCOVER DATASET (NLCD) MAP

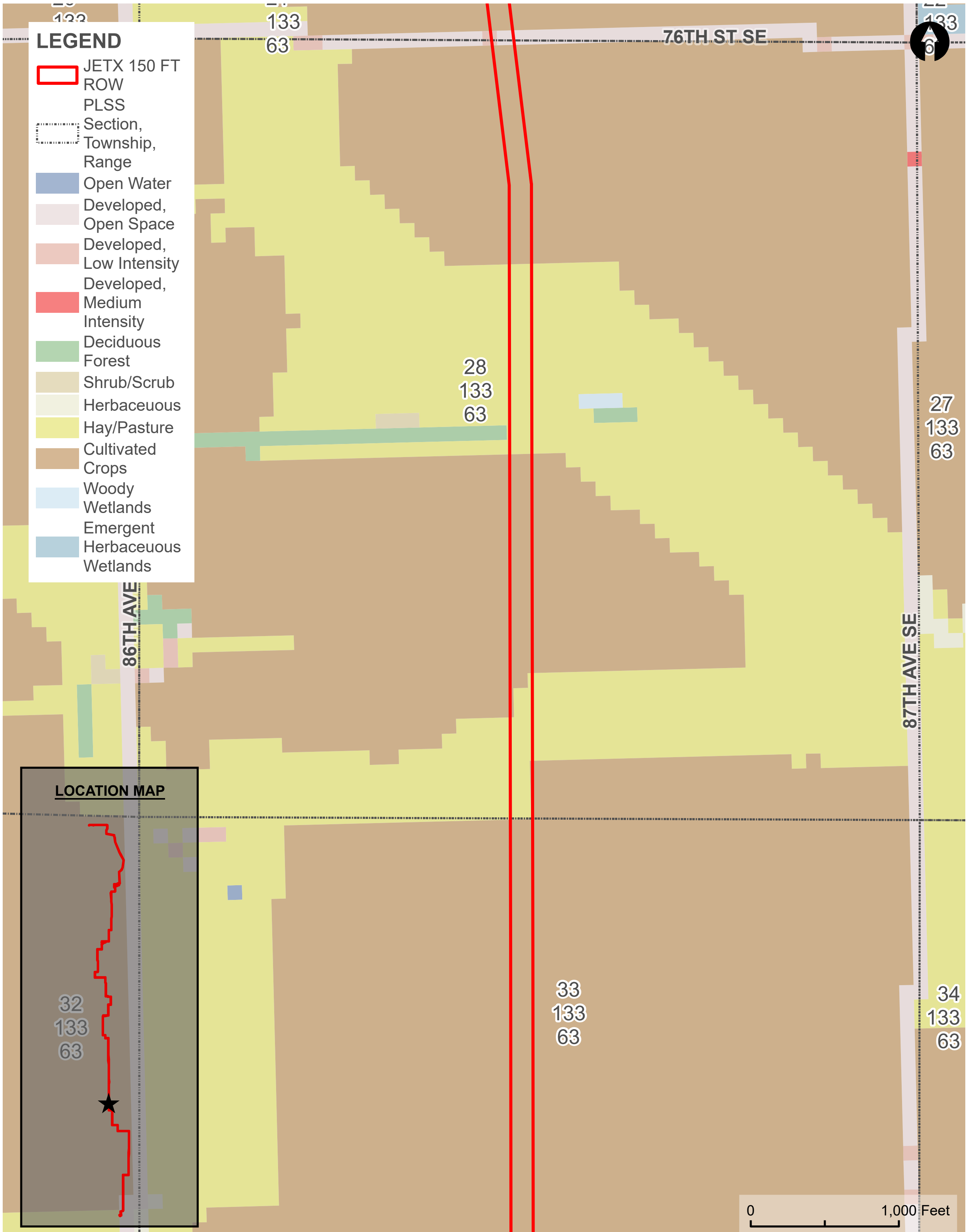


JETx Jamestown to Ellendale

NATIONAL LANDCOVER DATASET (NLCD) MAP

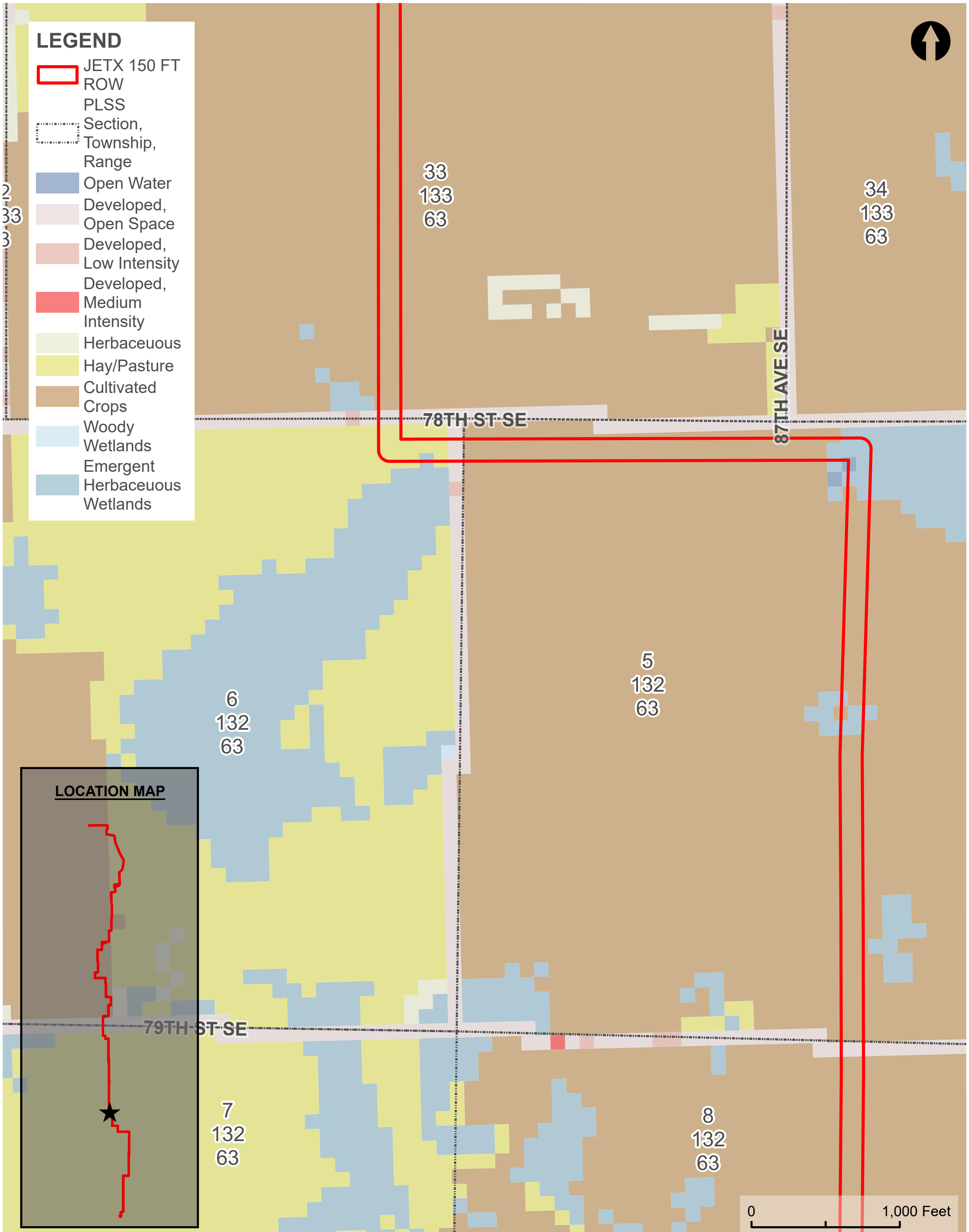


NATIONAL LANDCOVER DATASET (NLCD) MAP

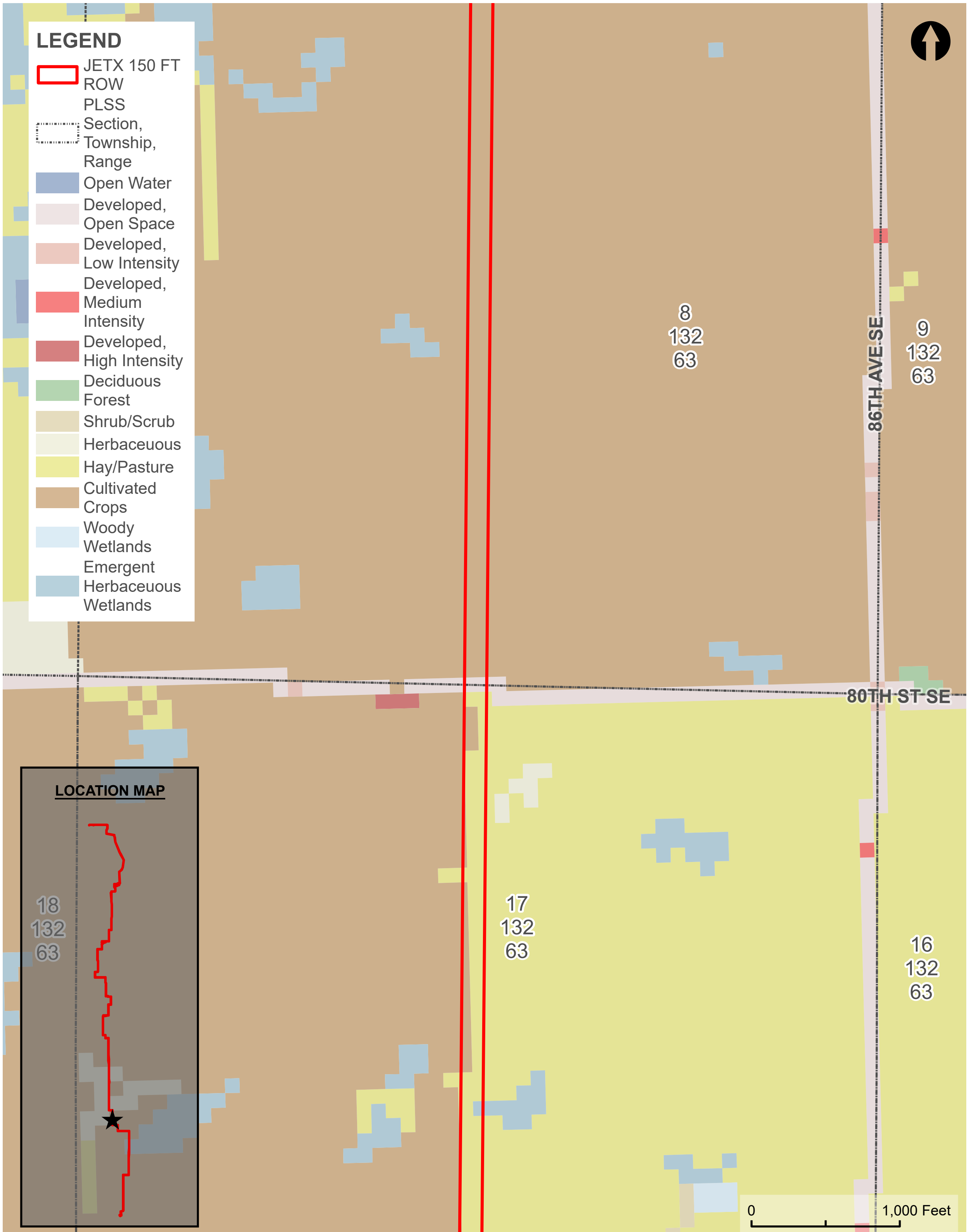


NATIONAL LANDCOVER DATASET (NLCD) MAP

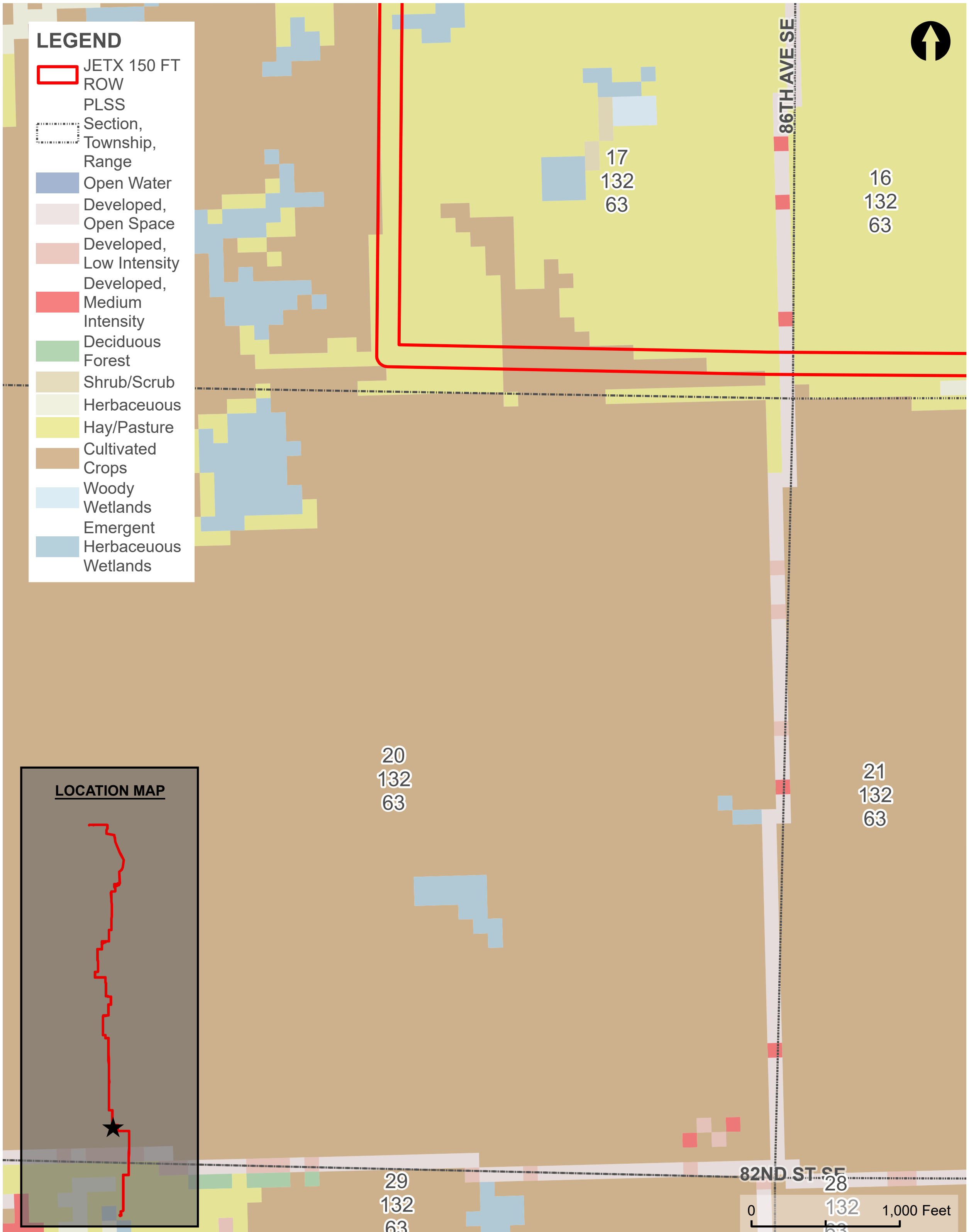
JETx Jamestown to Ellendale



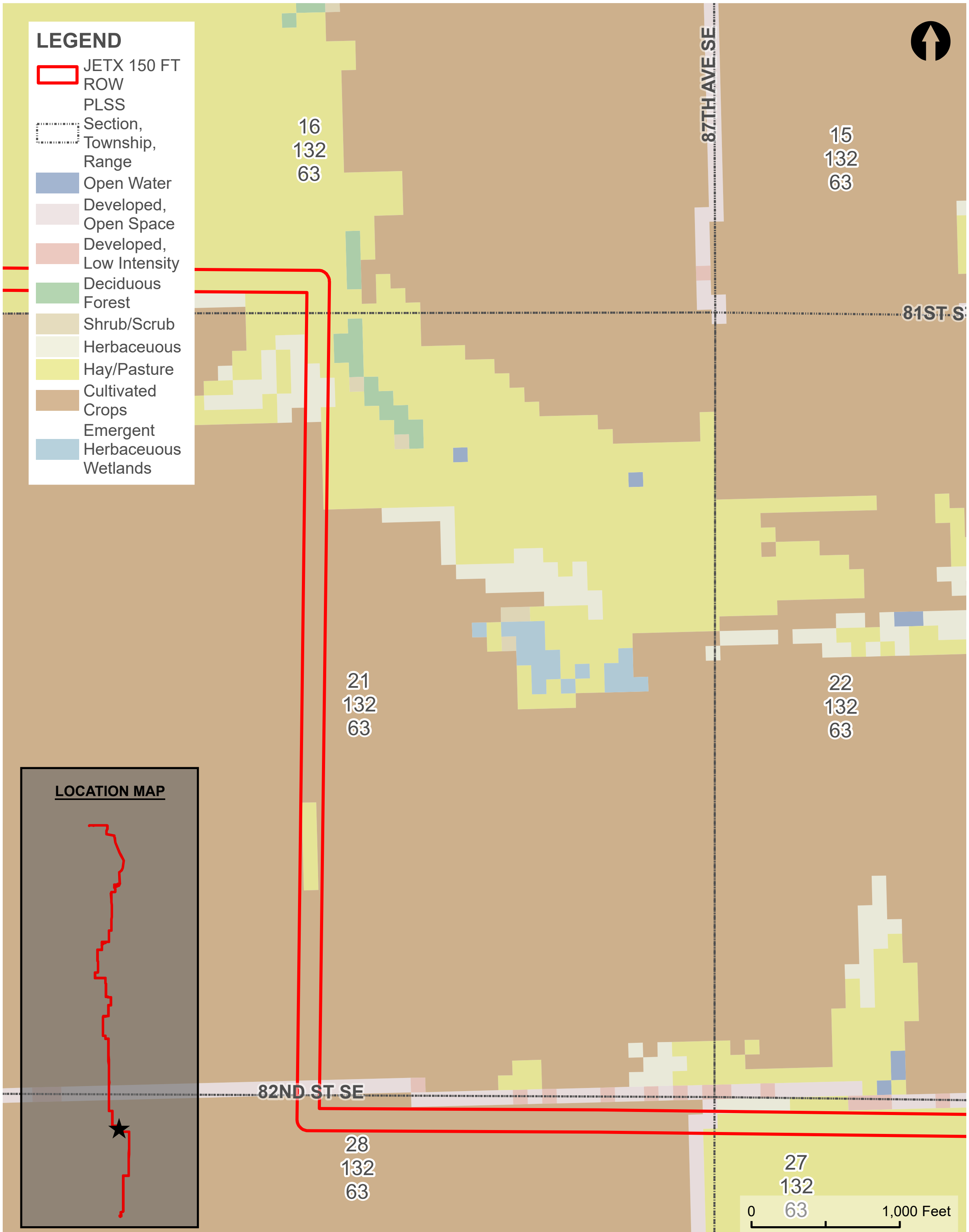
NATIONAL LANDCOVER DATASET (NLCD) MAP



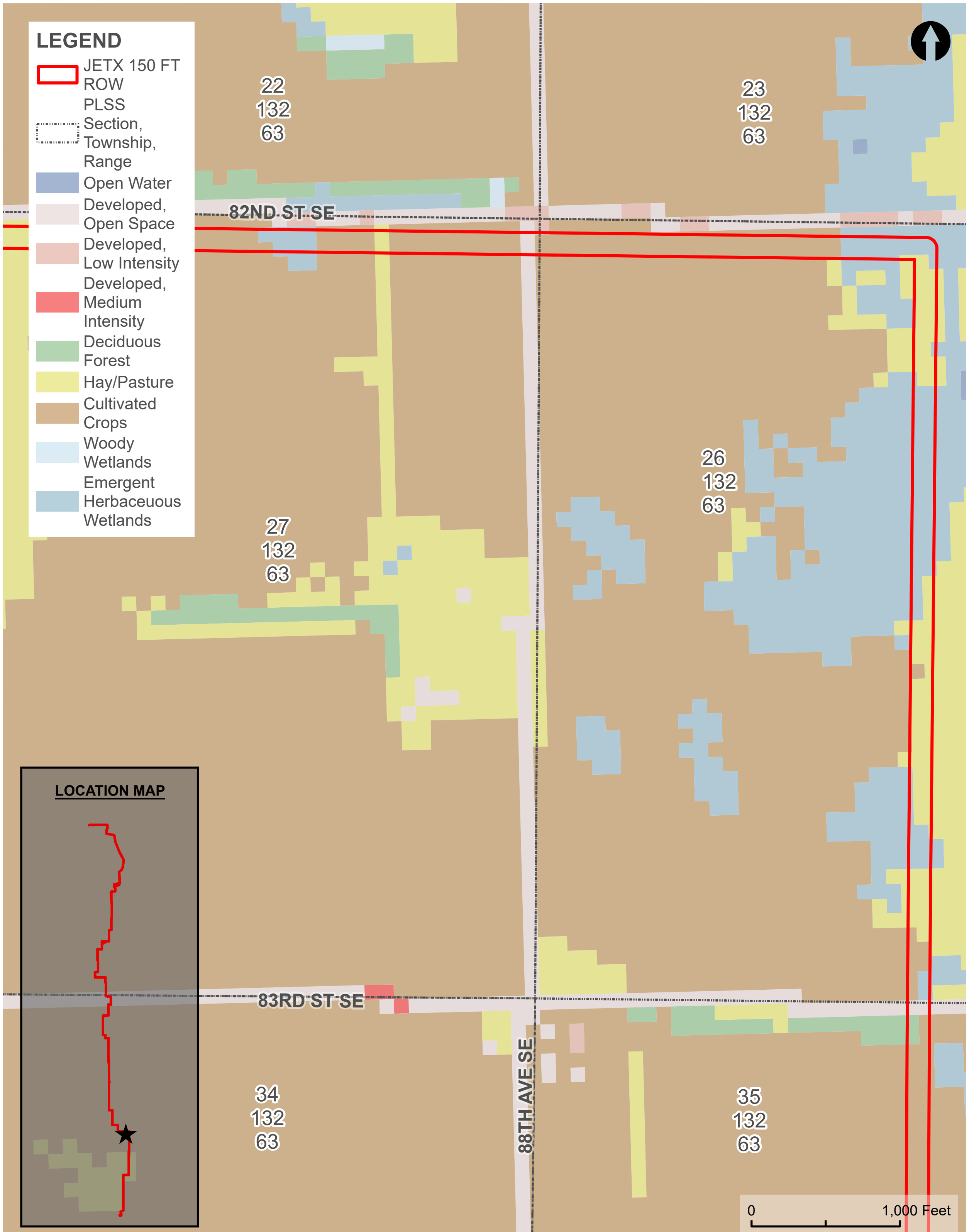
NATIONAL LANDCOVER DATASET (NLCD) MAP



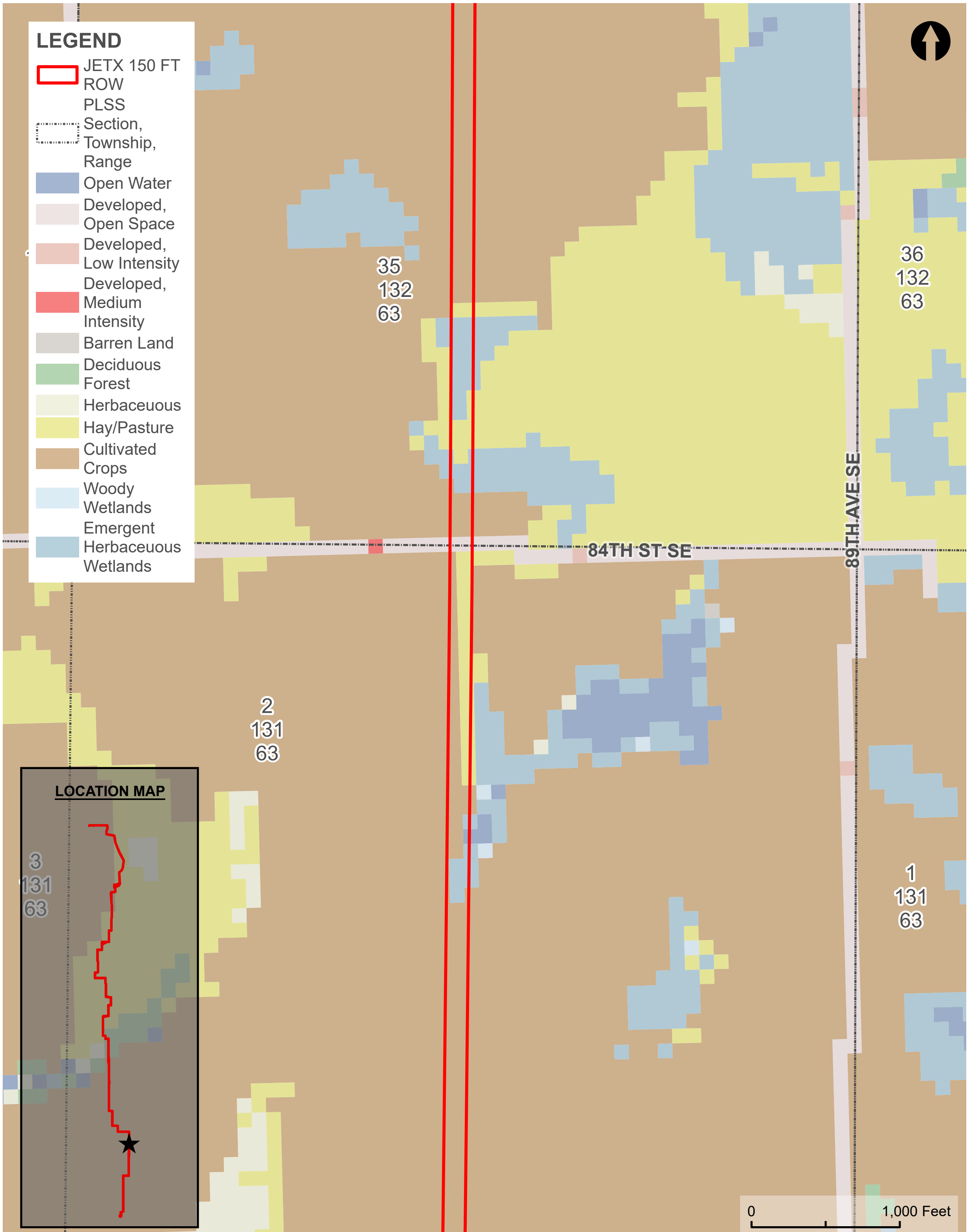
NATIONAL LANDCOVER DATASET (NLCD) MAP



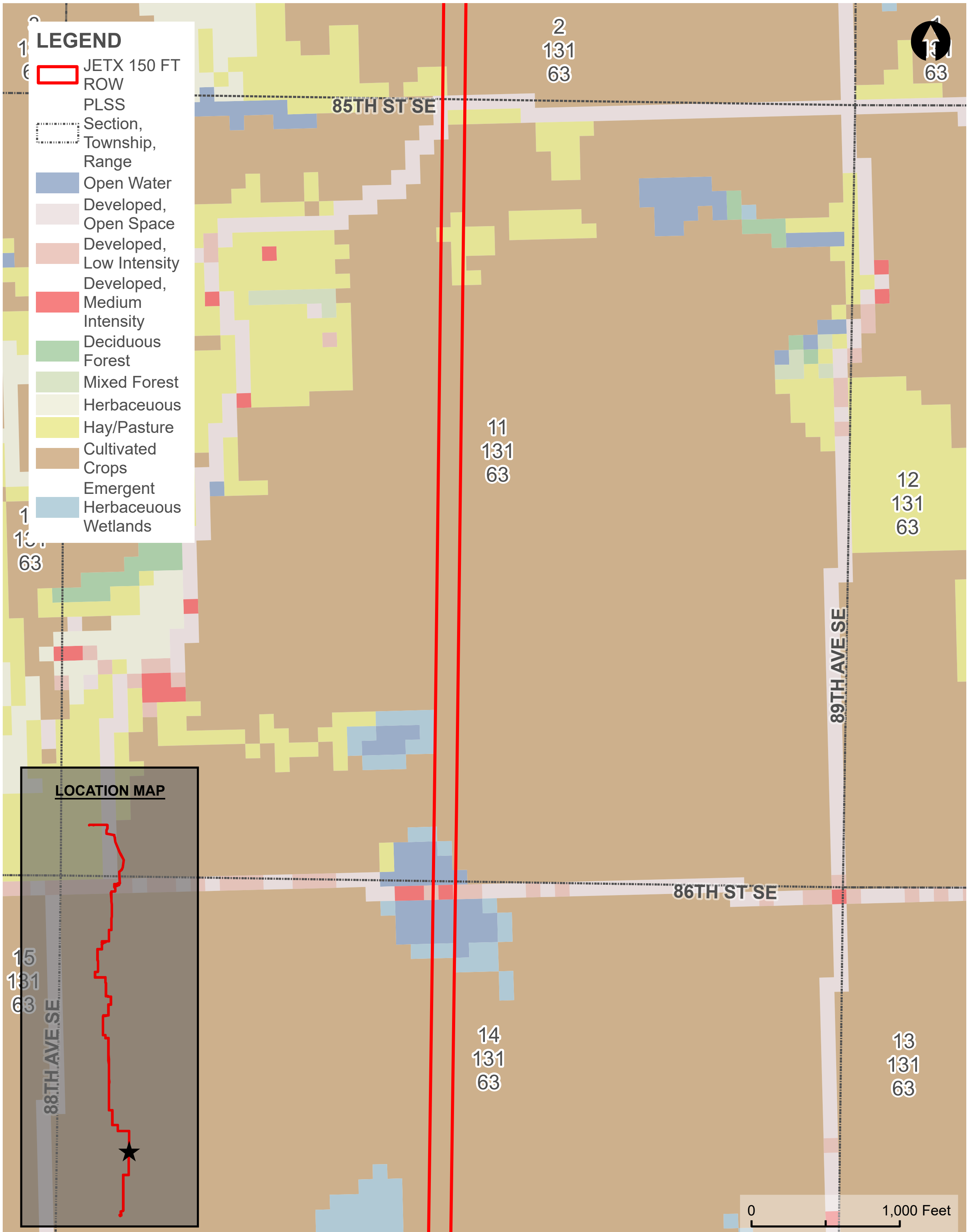
NATIONAL LANDCOVER DATASET (NLCD) MAP



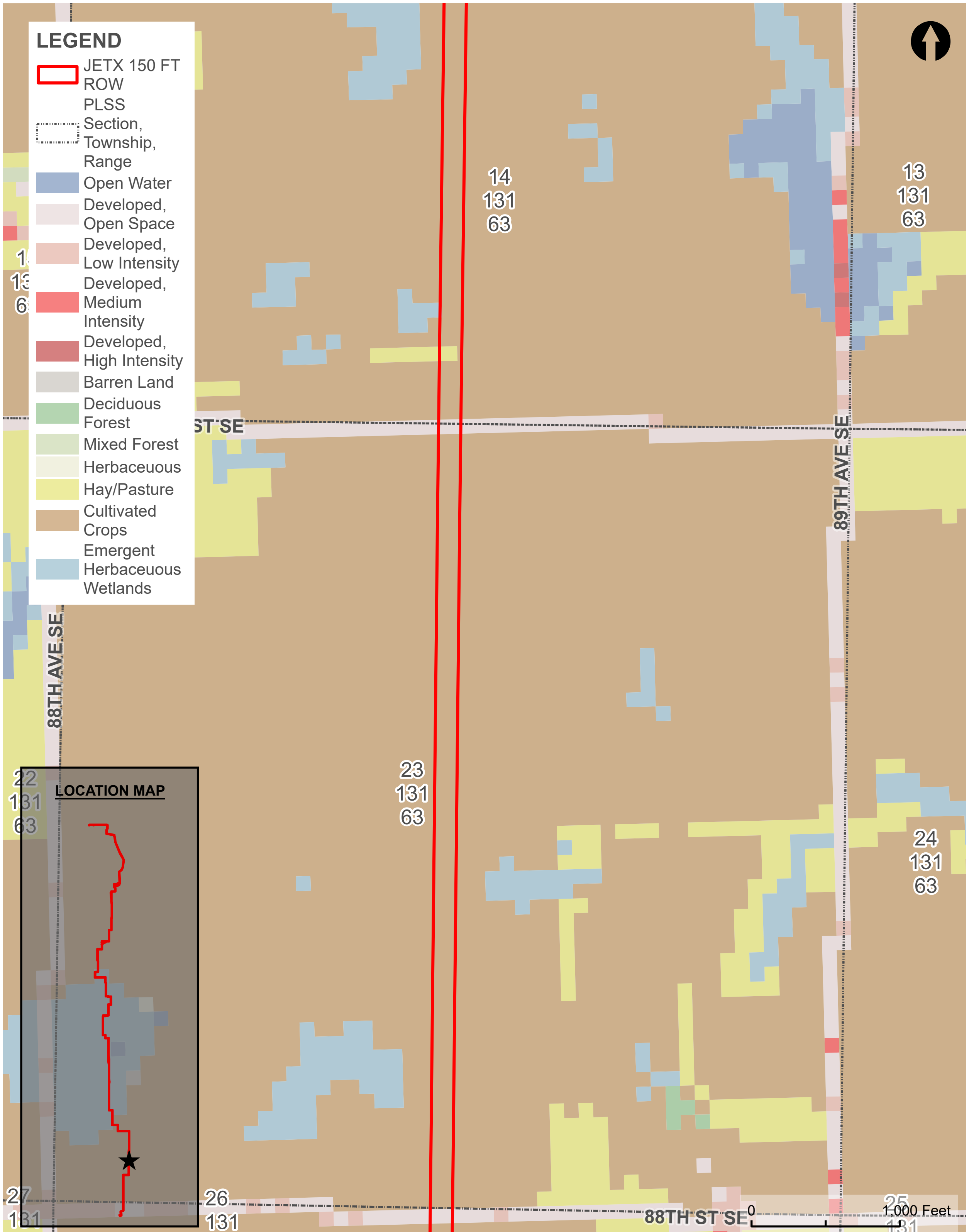
NATIONAL LANDCOVER DATASET (NLCD) MAP



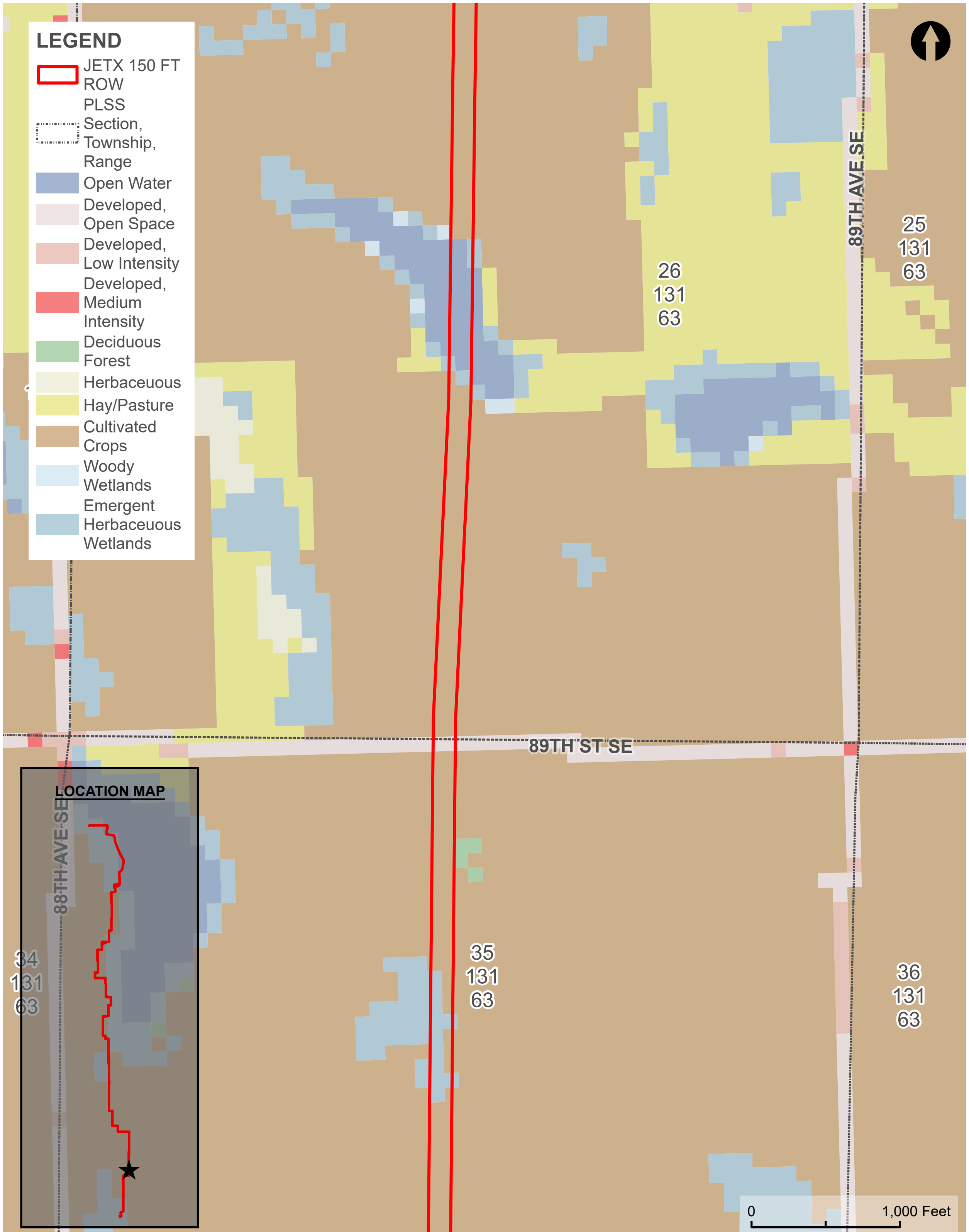
NATIONAL LANDCOVER DATASET (NLCD) MAP



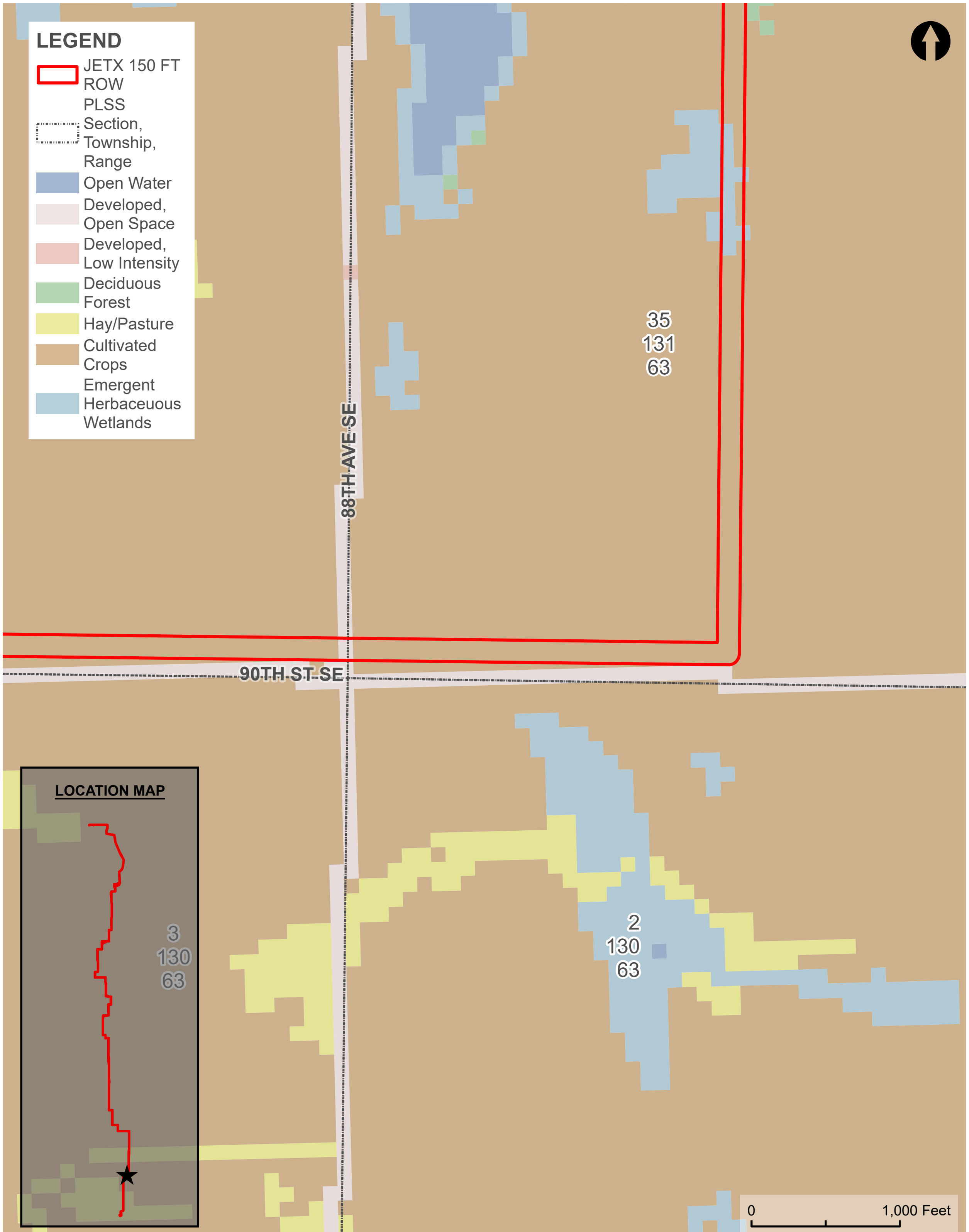
NATIONAL LANDCOVER DATASET (NLCD) MAP



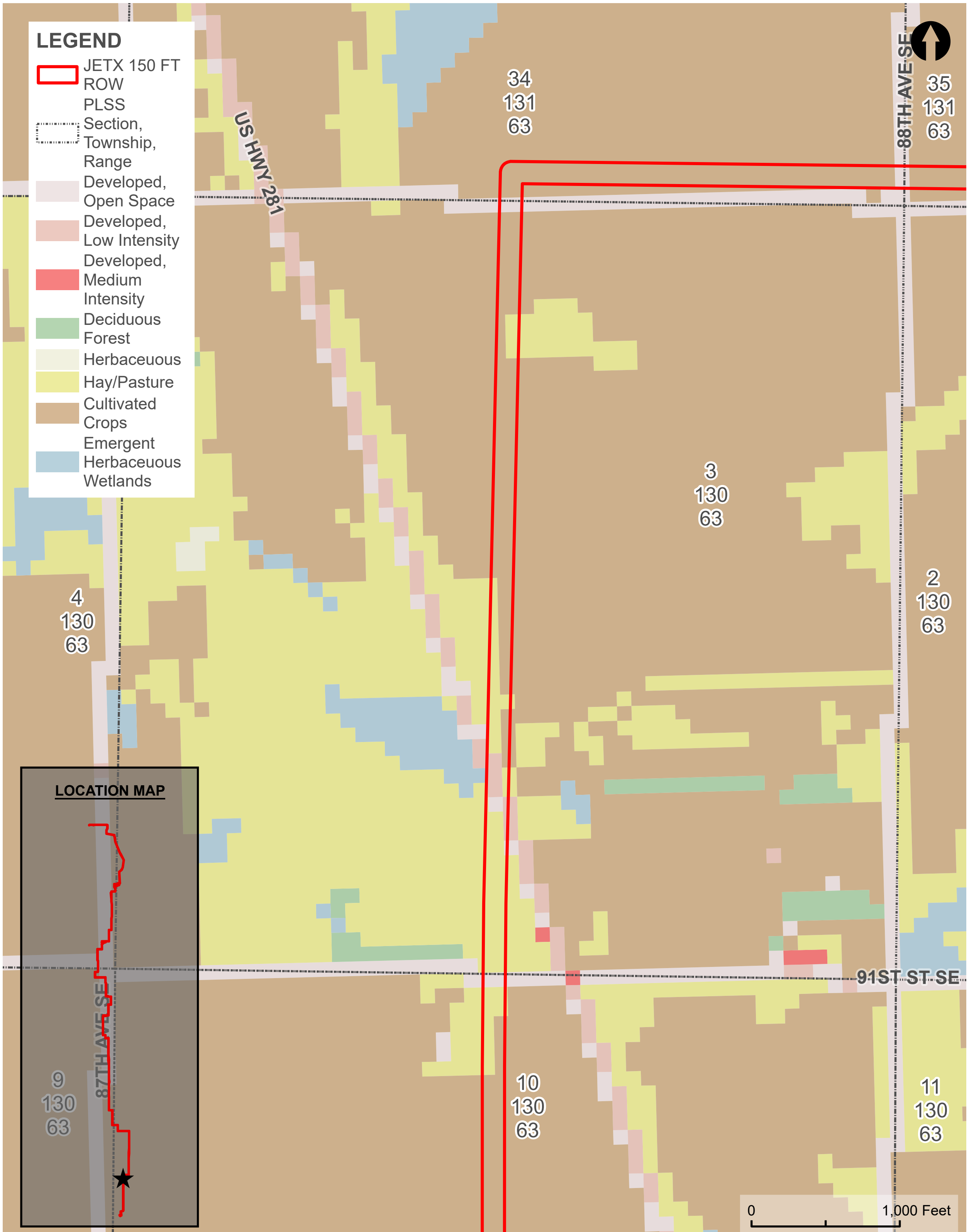
NATIONAL LANDCOVER DATASET (NLCD) MAP



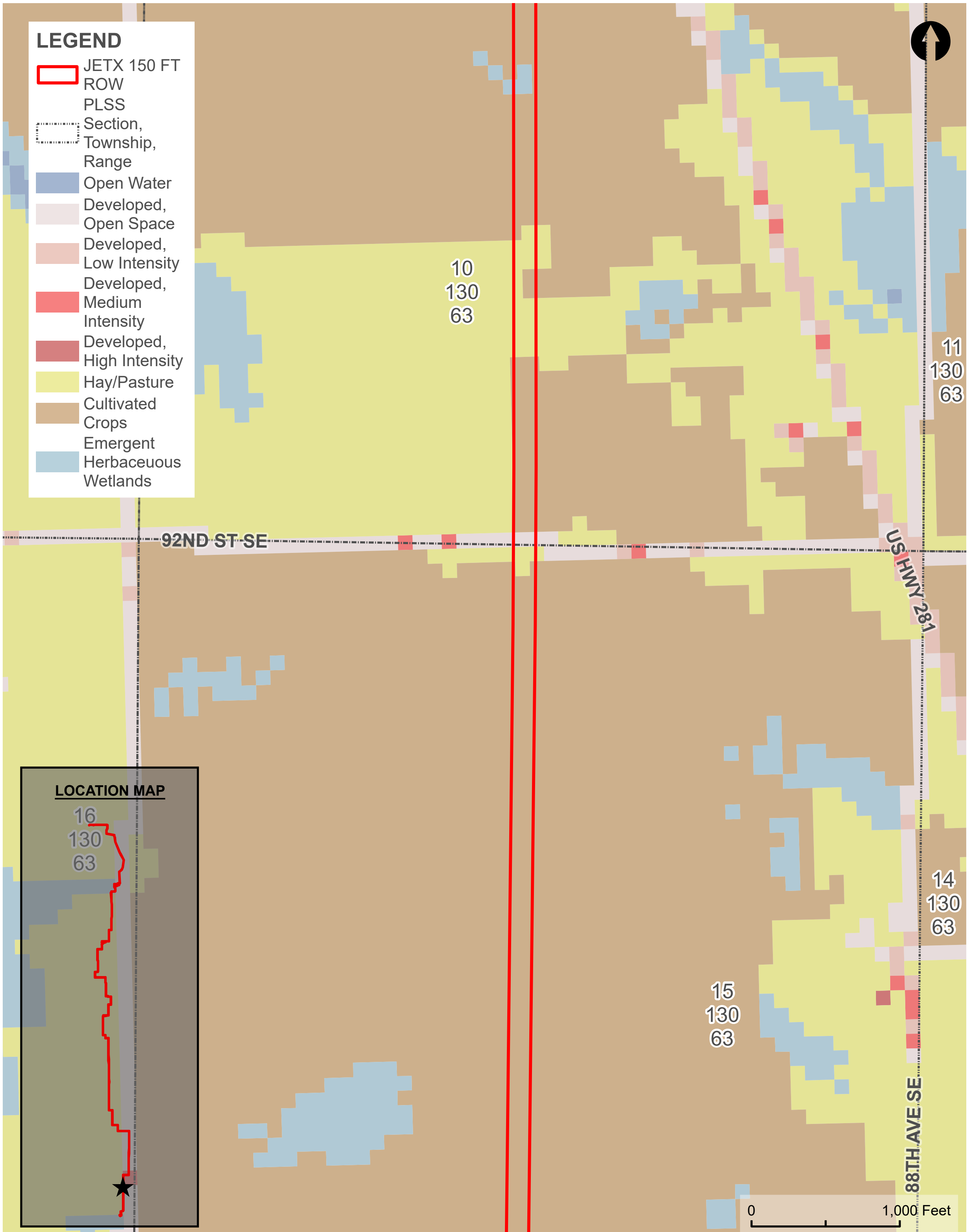
NATIONAL LANDCOVER DATASET (NLCD) MAP



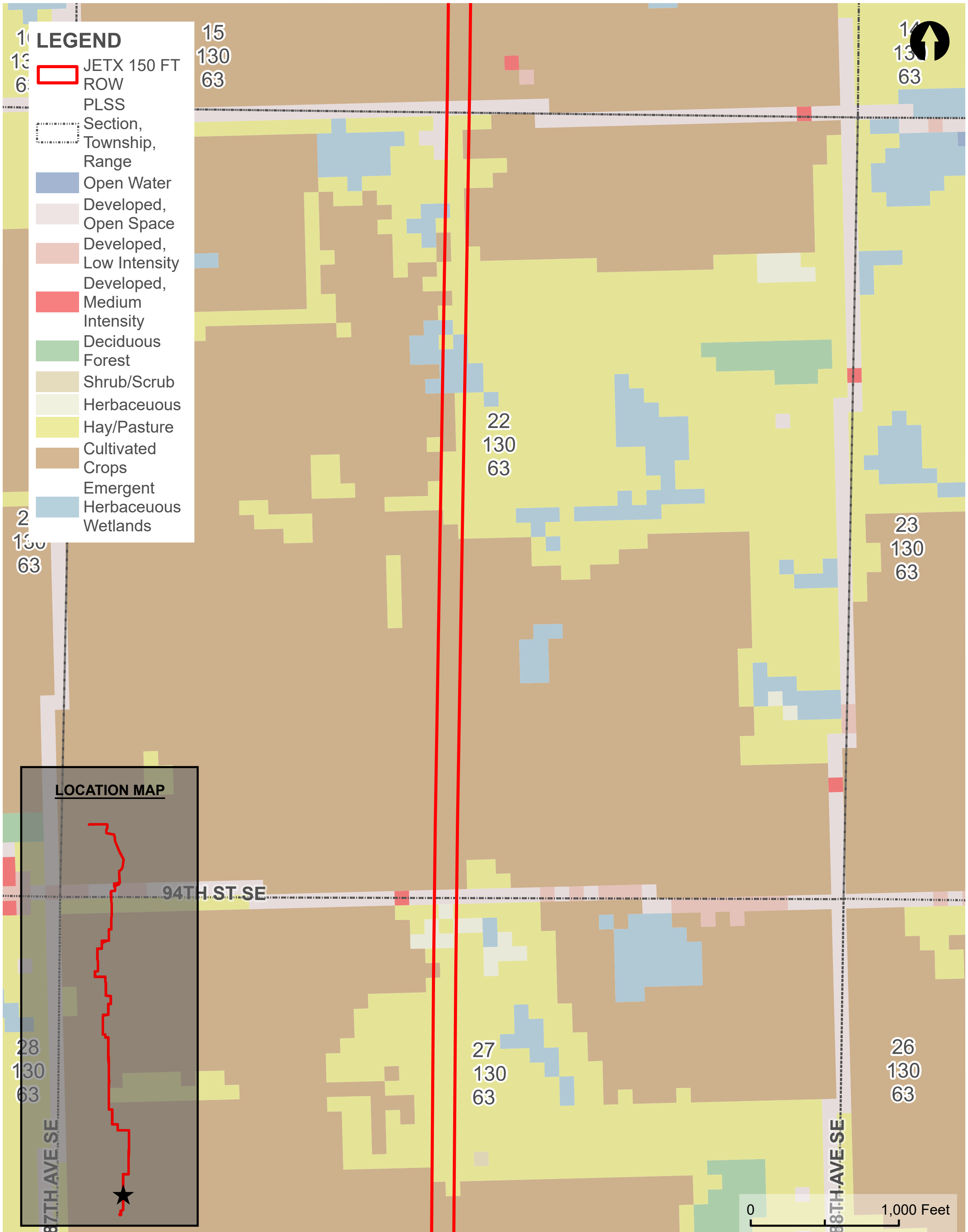
NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

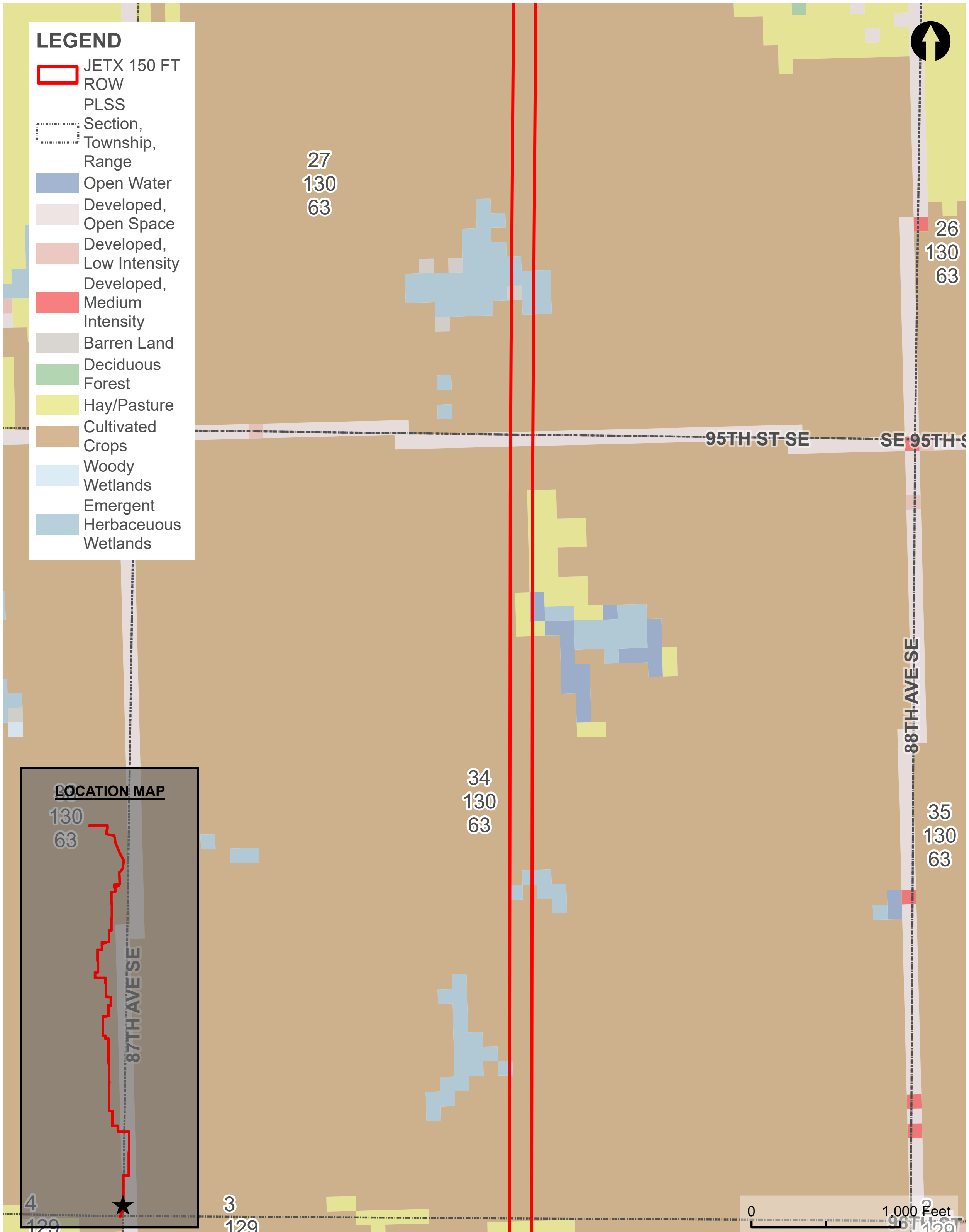


NATIONAL LANDCOVER DATASET (NLCD) MAP

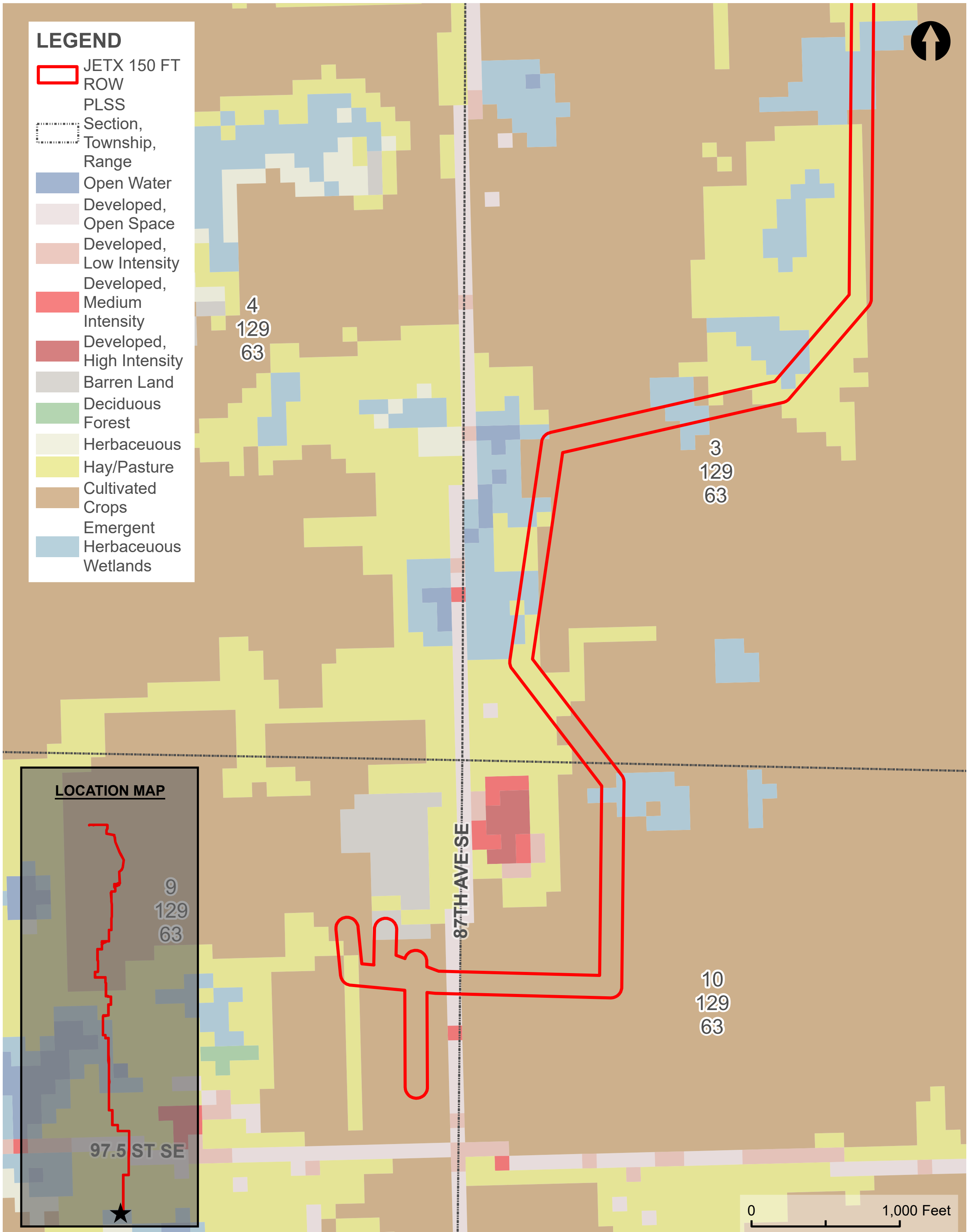


NATIONAL LANDCOVER DATASET (NLCD) MAP

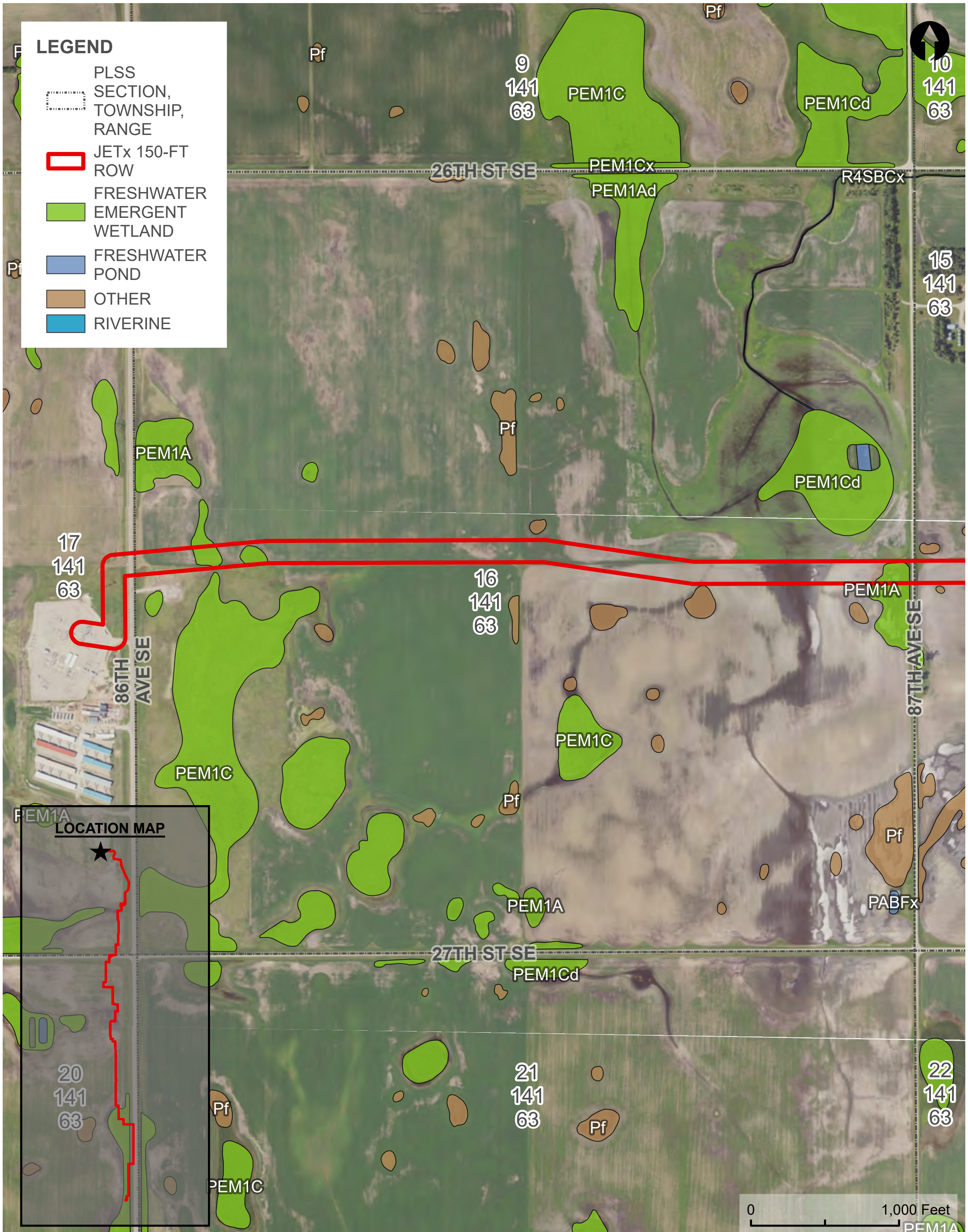
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL LANDCOVER DATASET (NLCD) MAP



NATIONAL LANDCOVER DATASET (NLCD) MAP

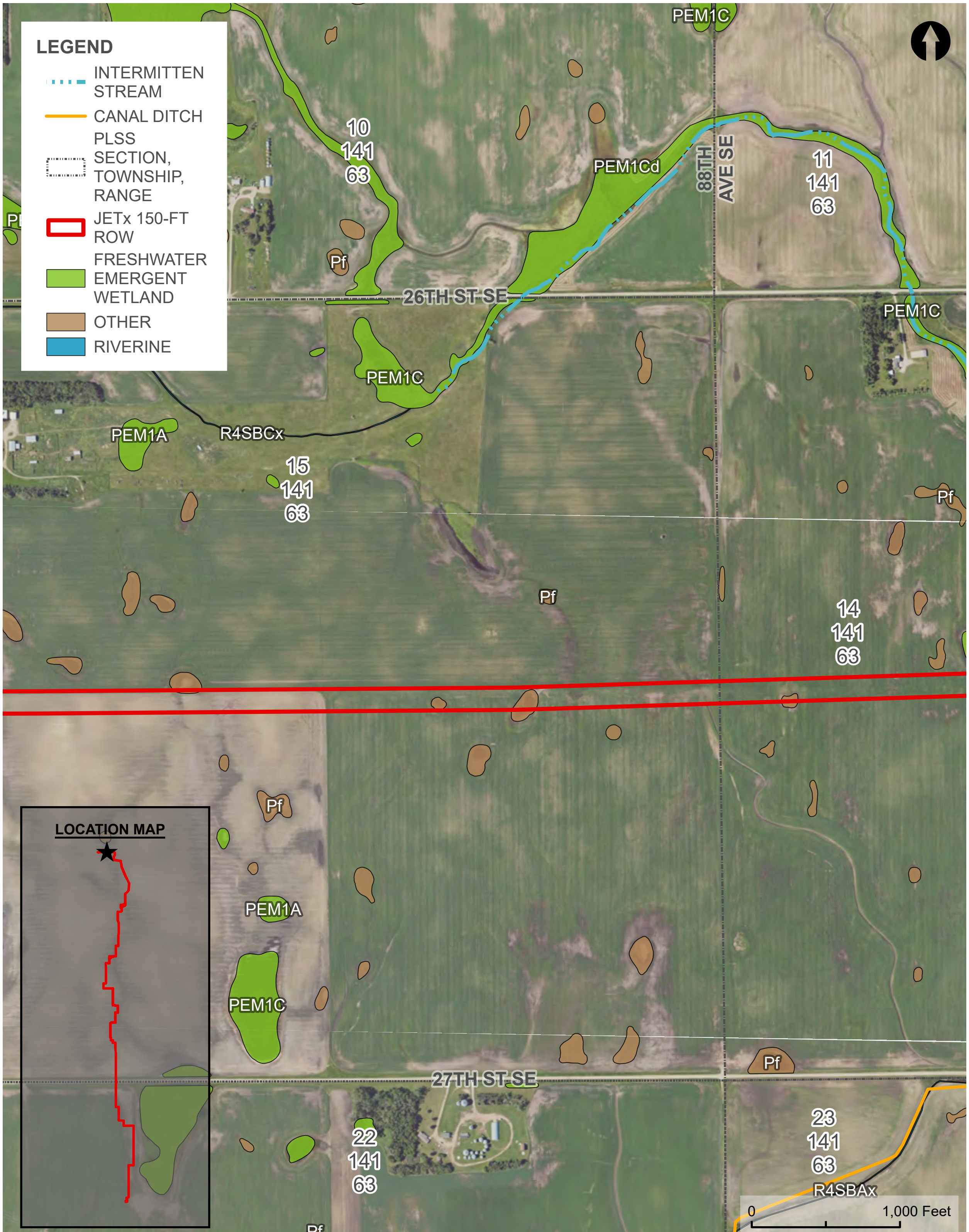


NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

PAGE 1 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



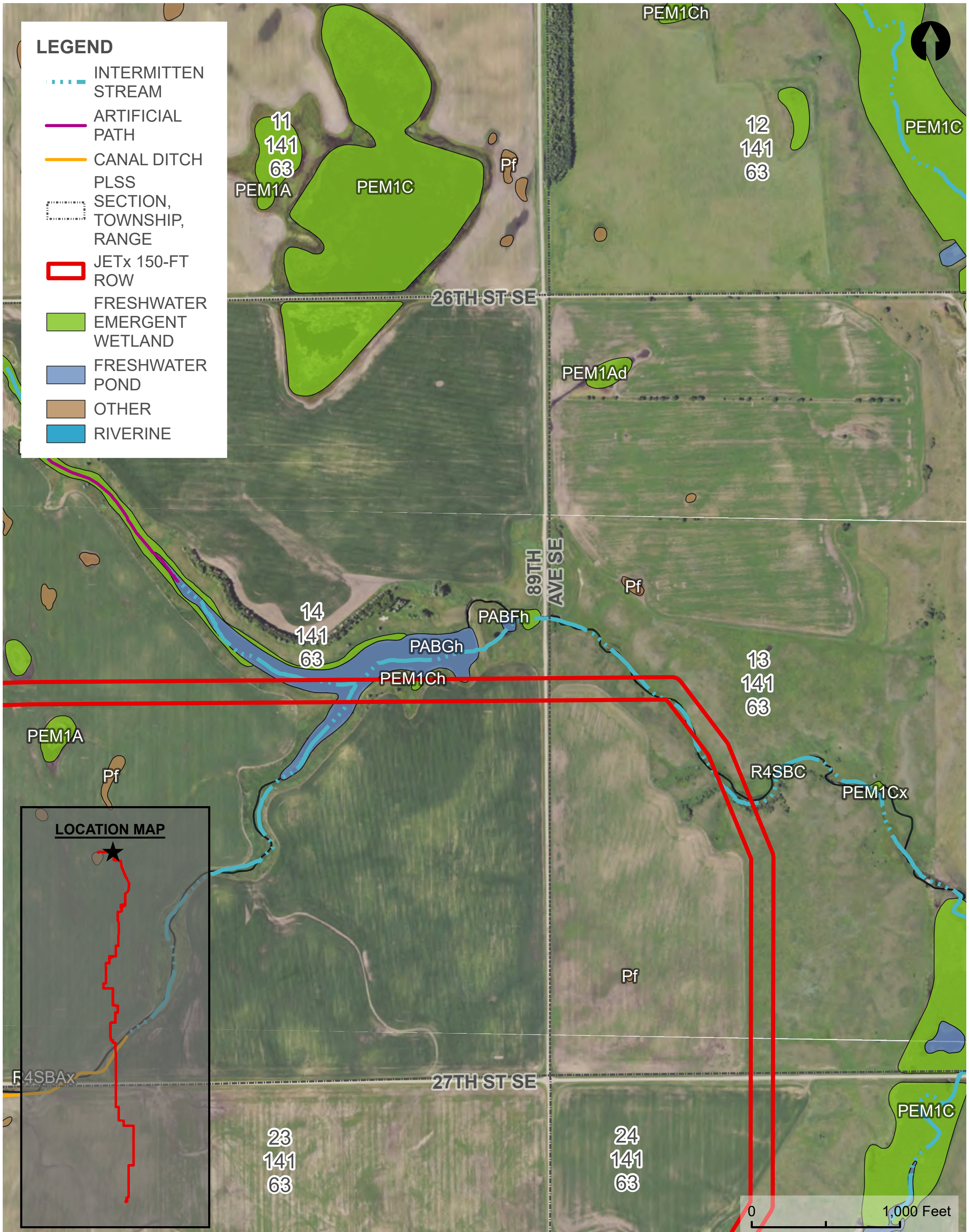
JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

PAGE 2 OF 55

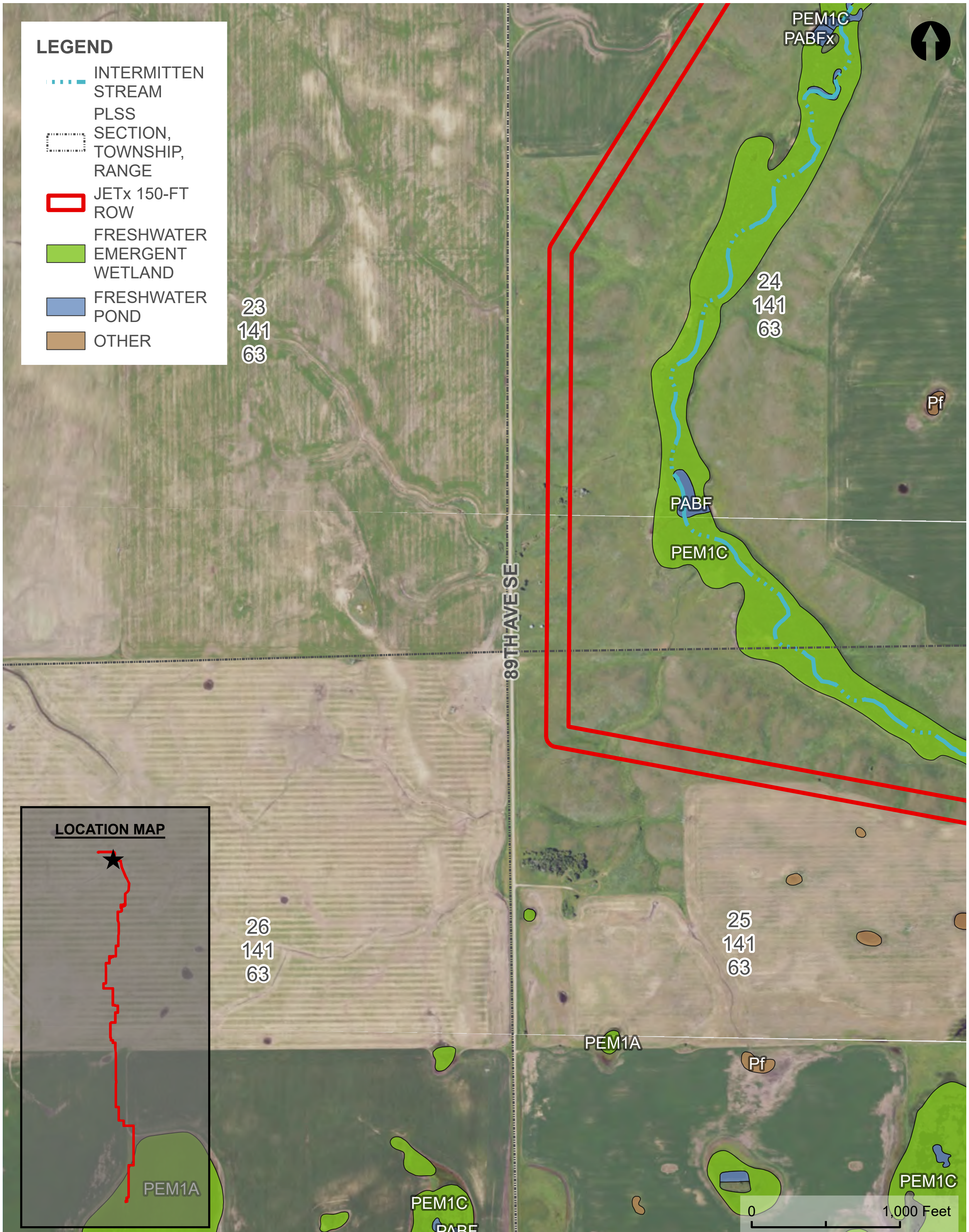
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

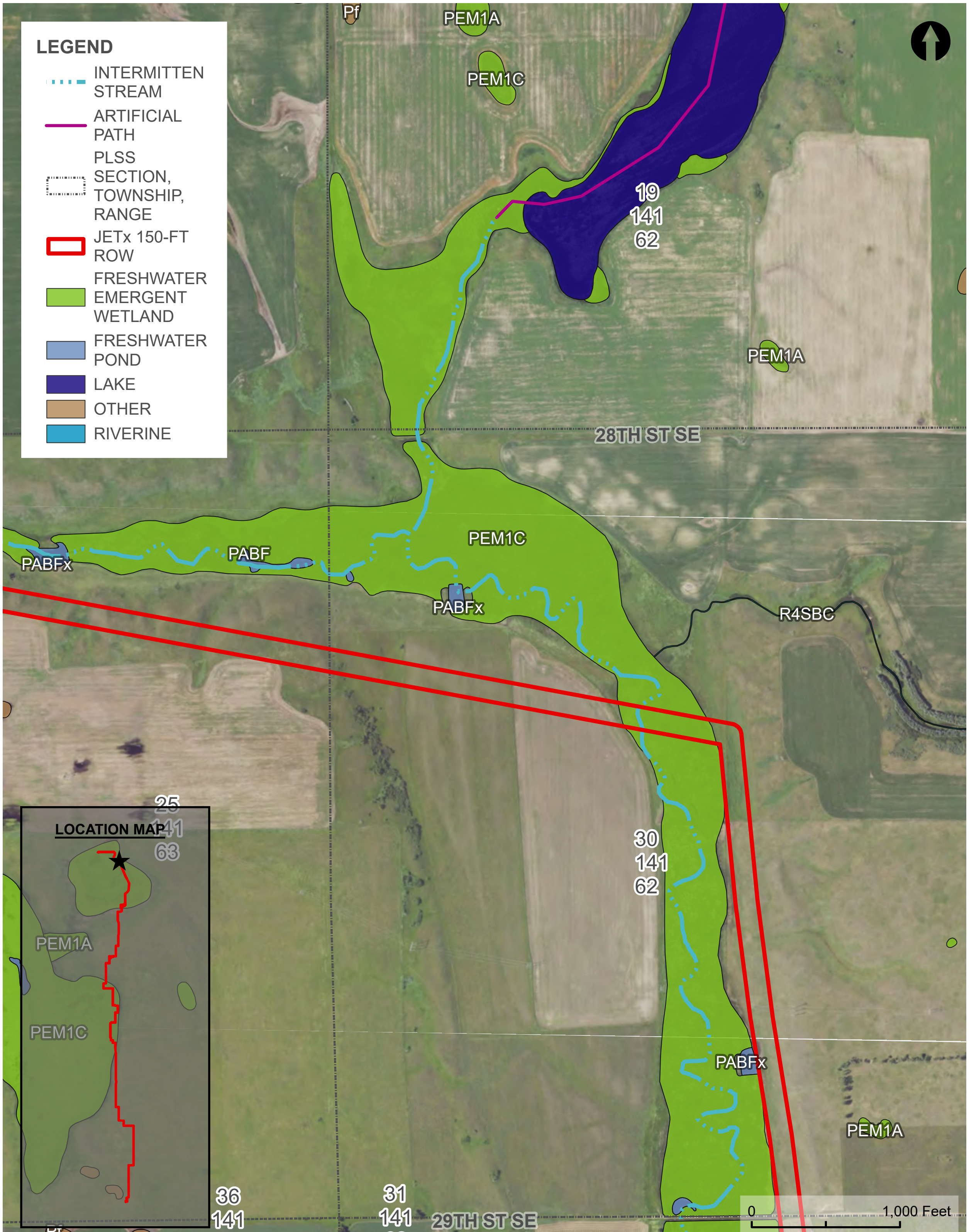
FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

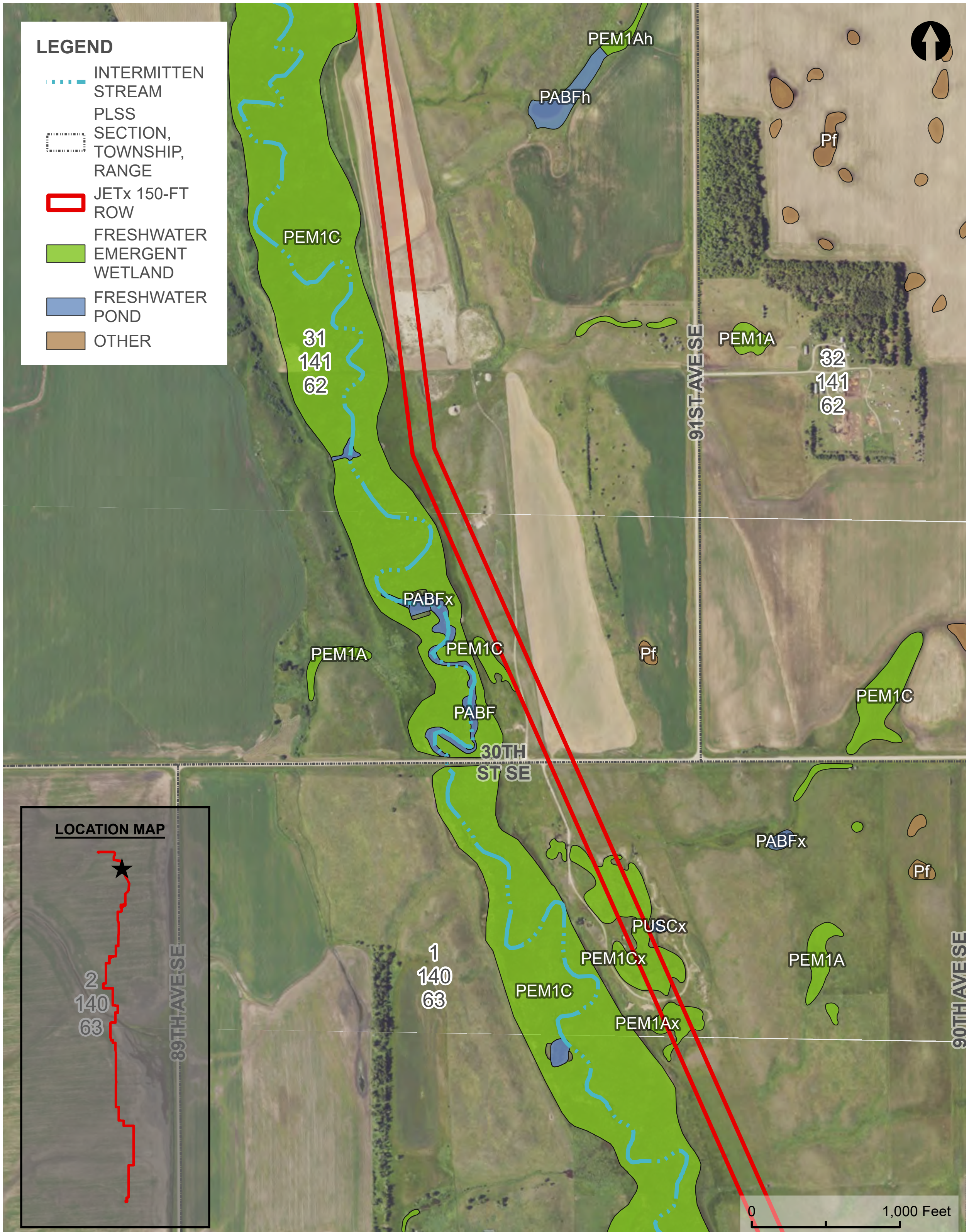
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

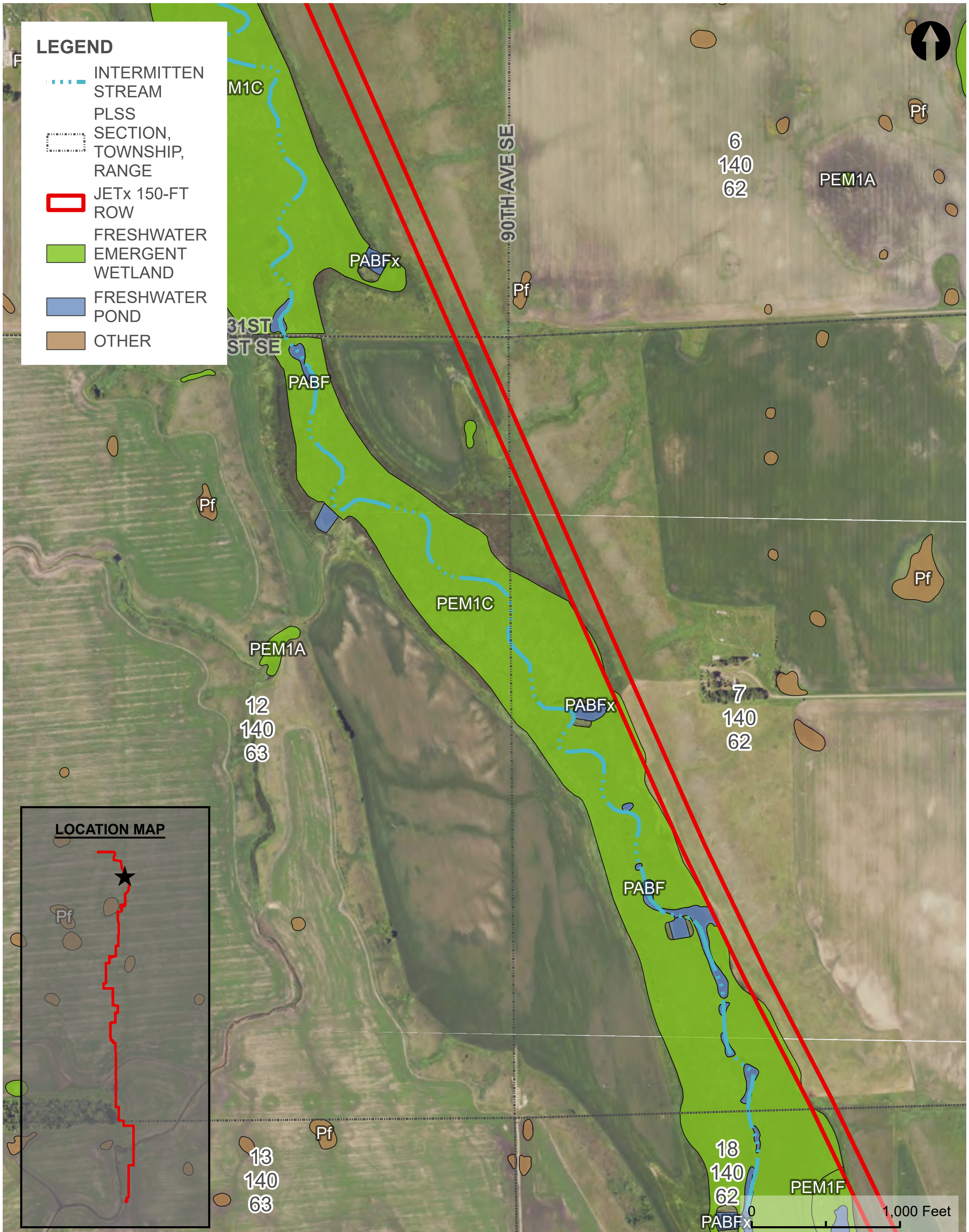


NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

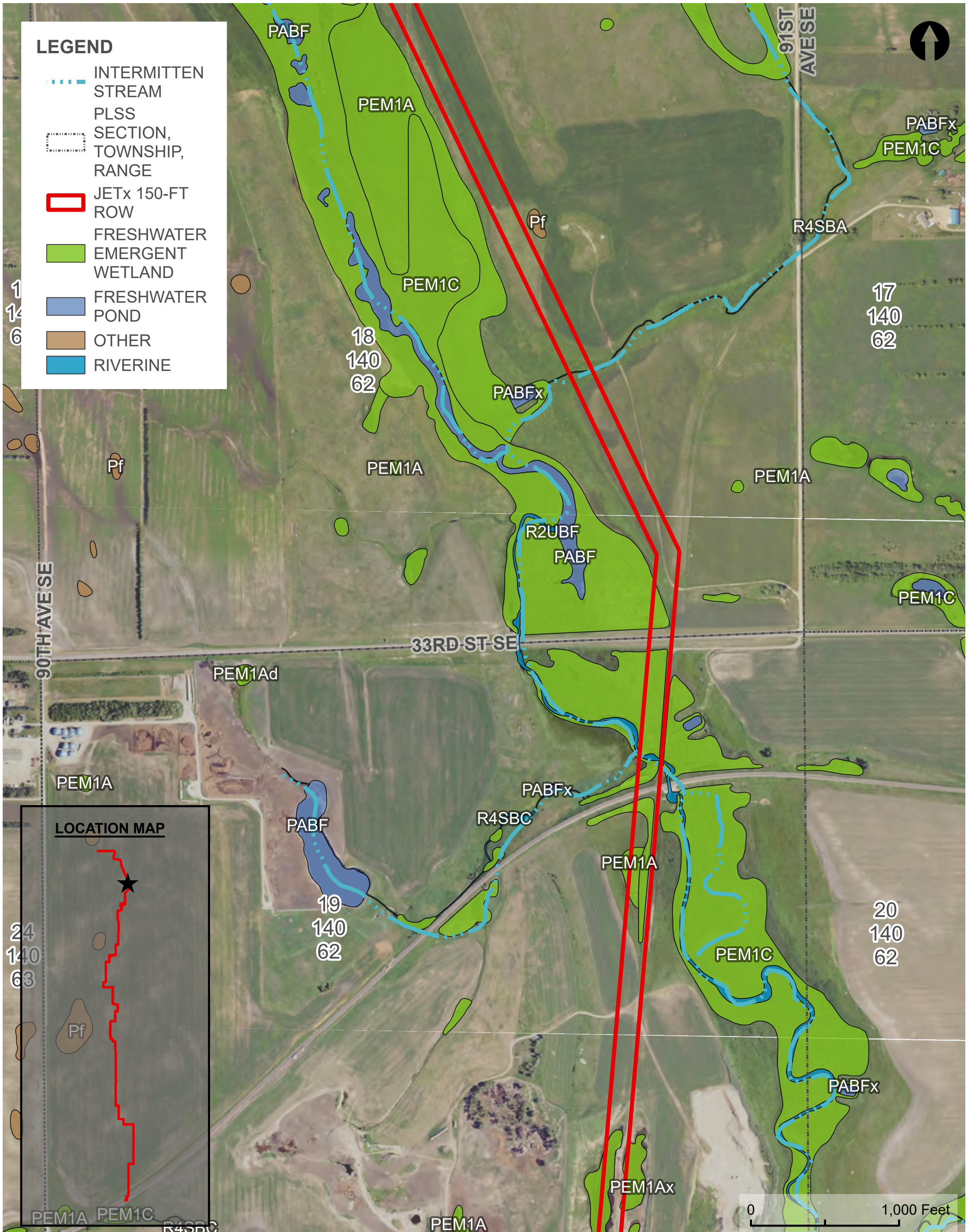
PAGE 6 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP
FIGURE 3
PAGE 7 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

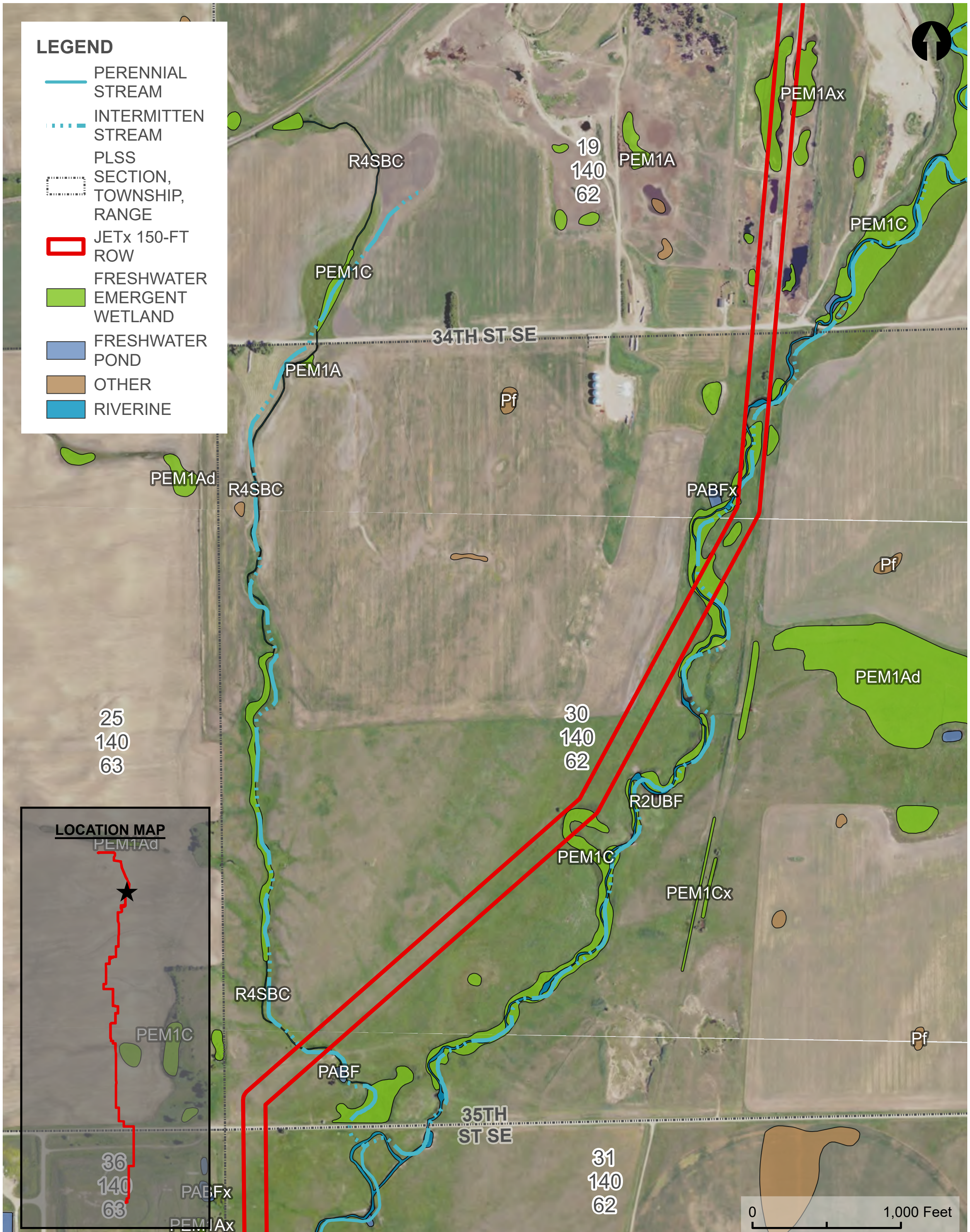


NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

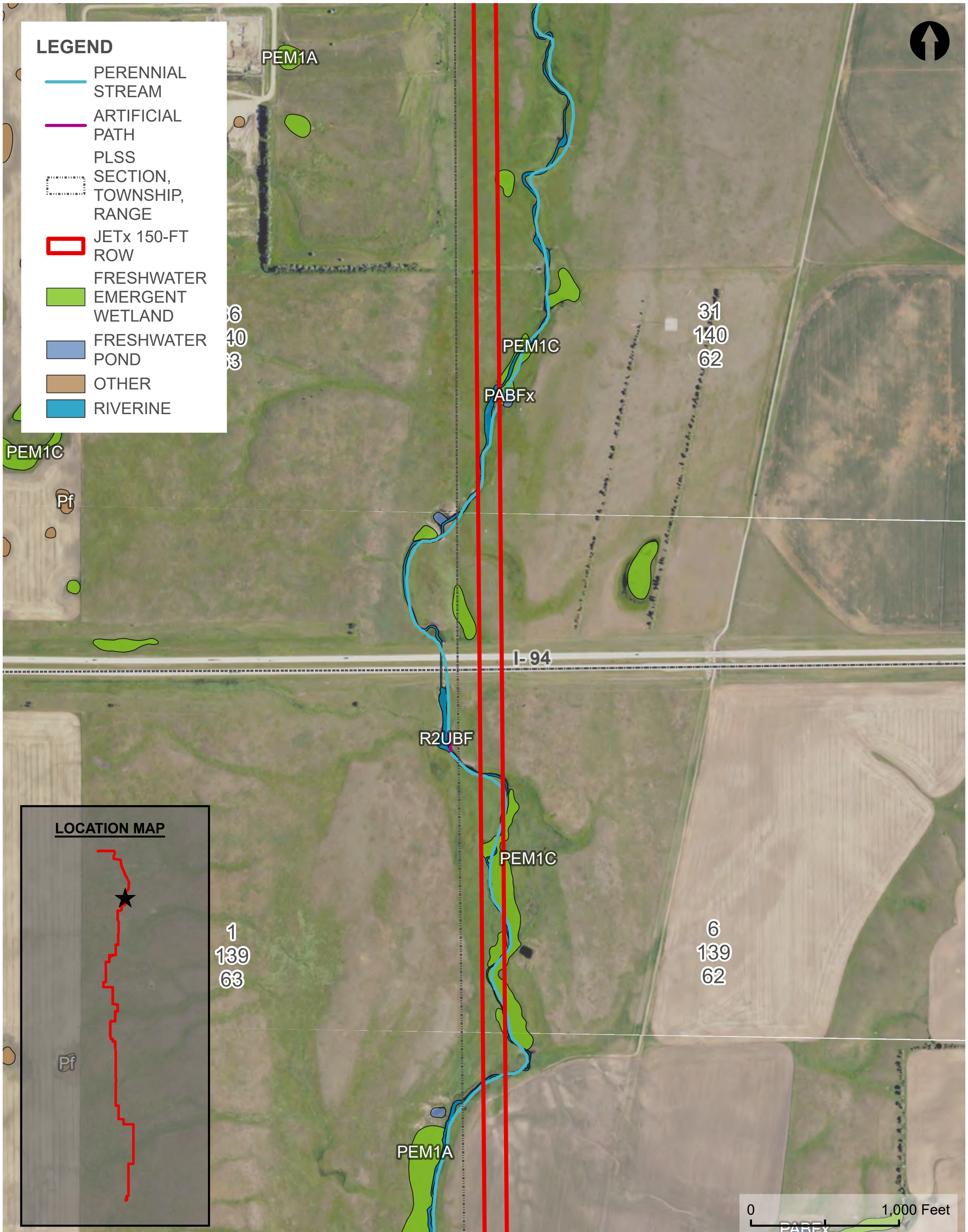
PAGE 8 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

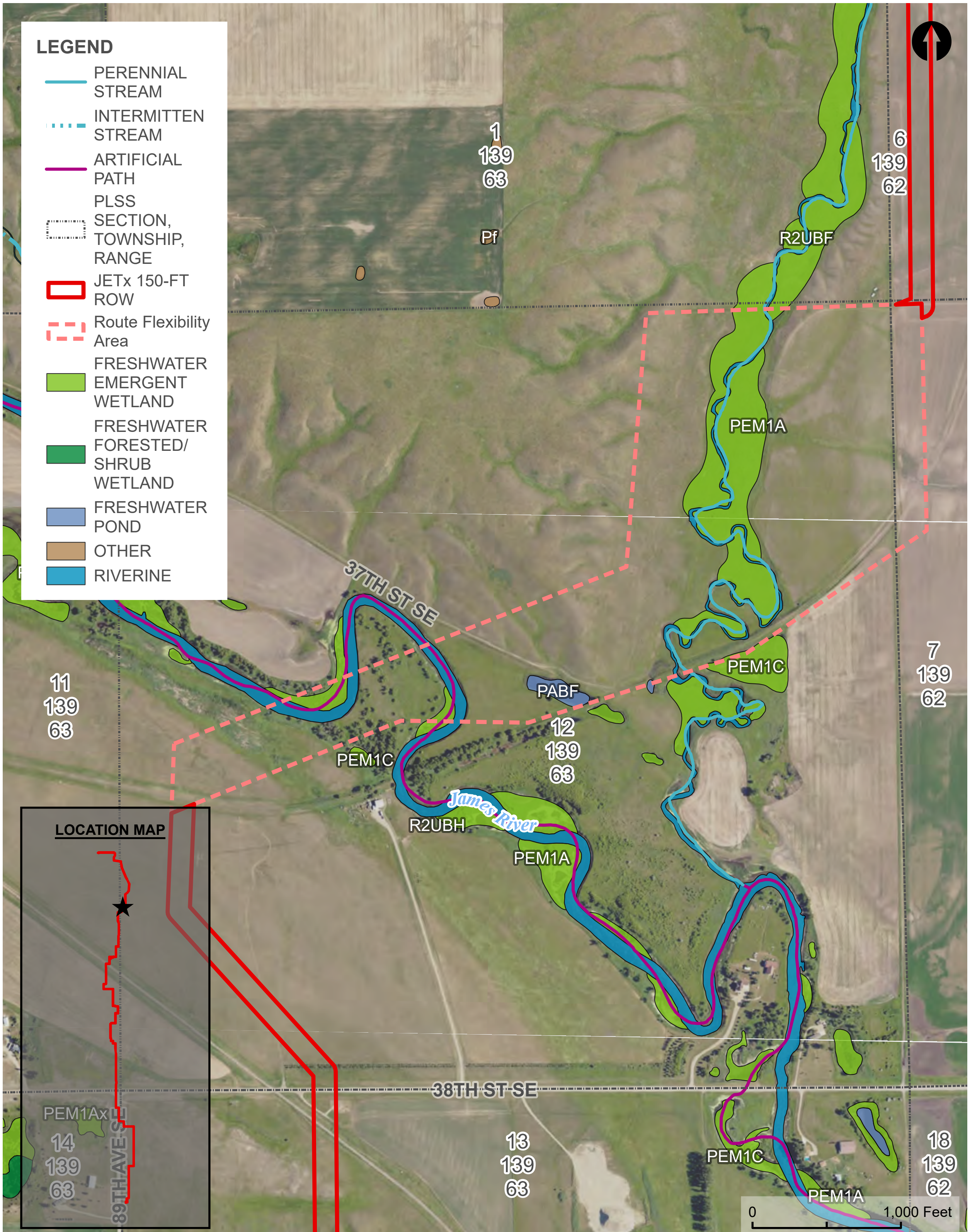
FIGURE 3



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



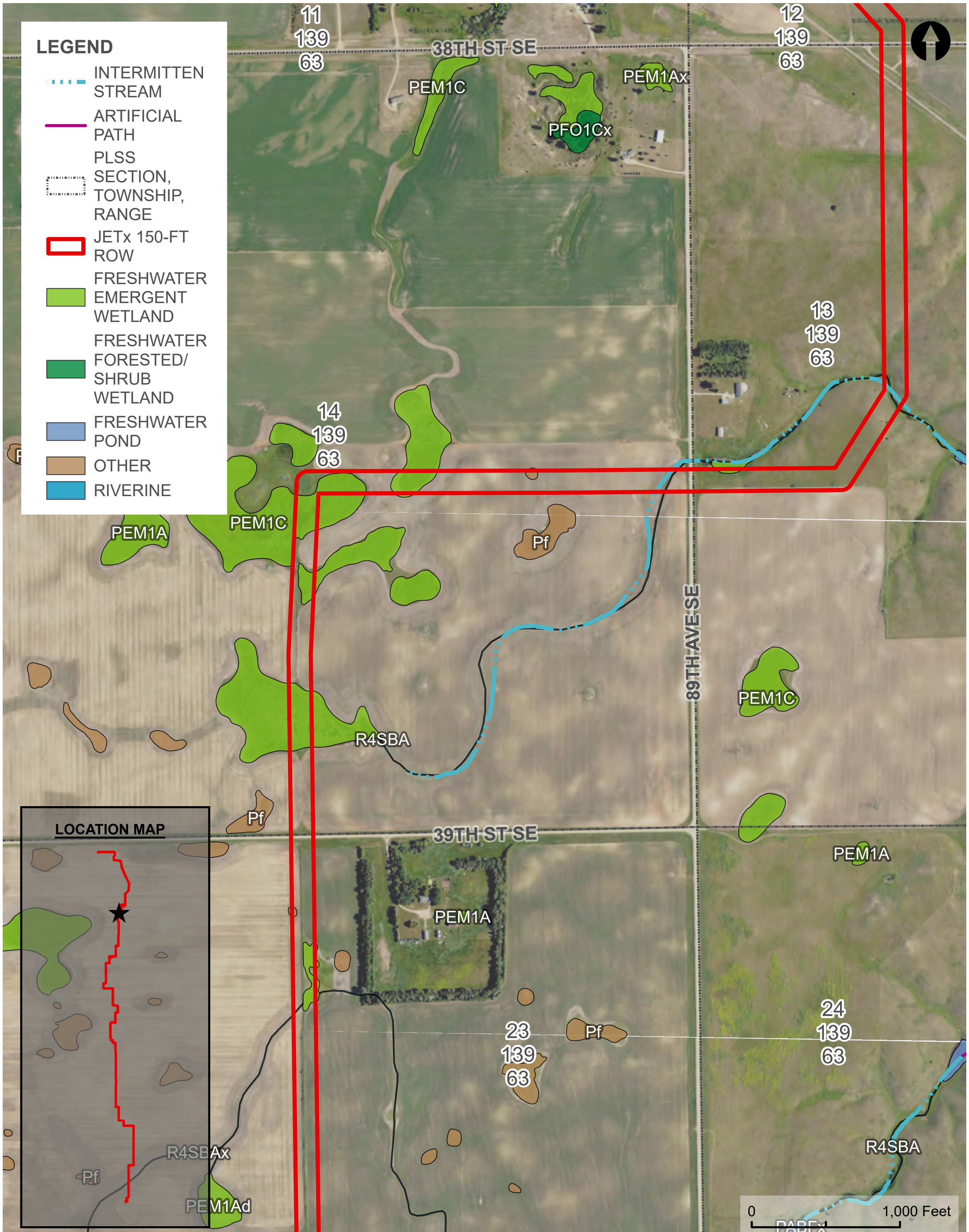
JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

PAGE 11 OF 55

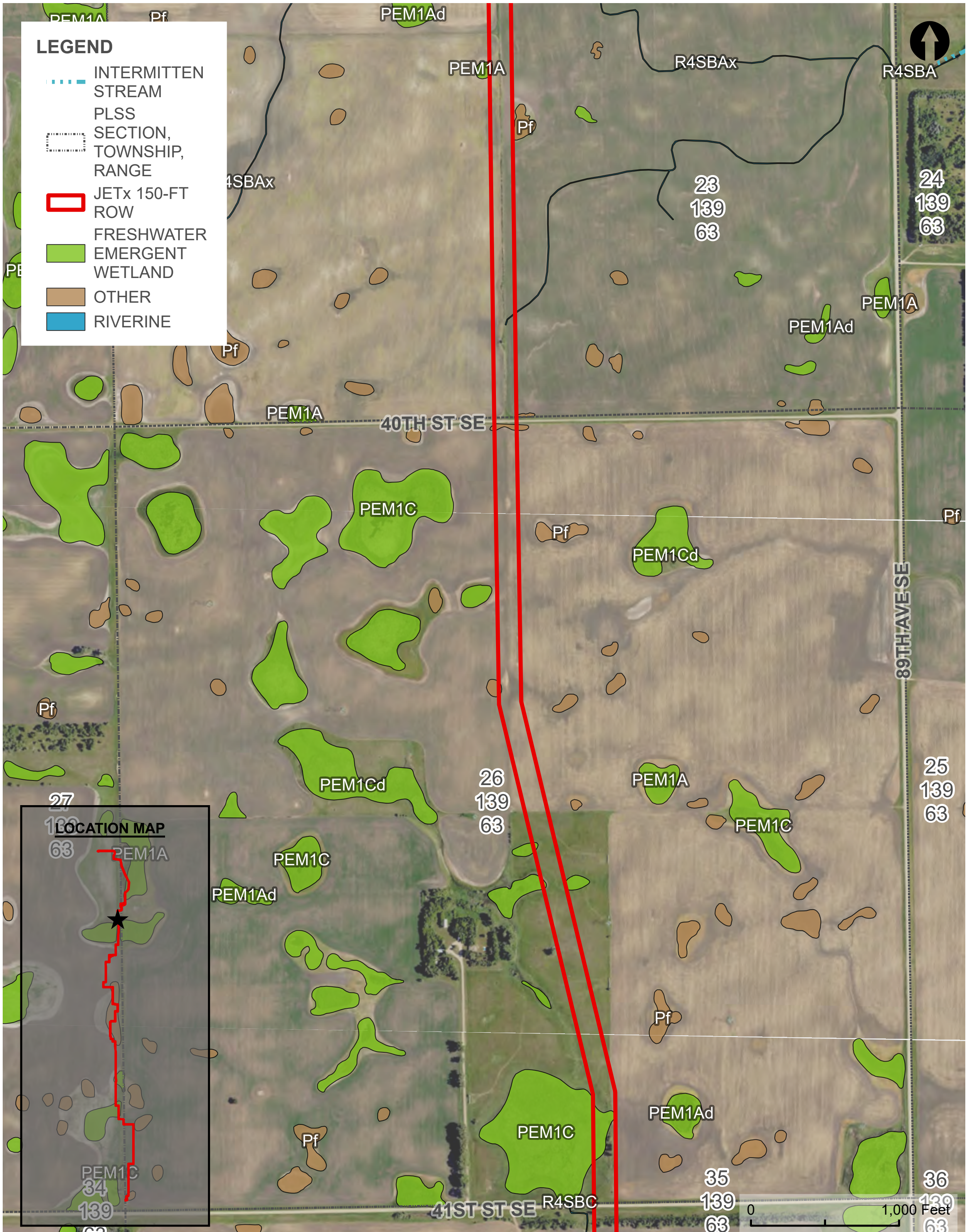
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

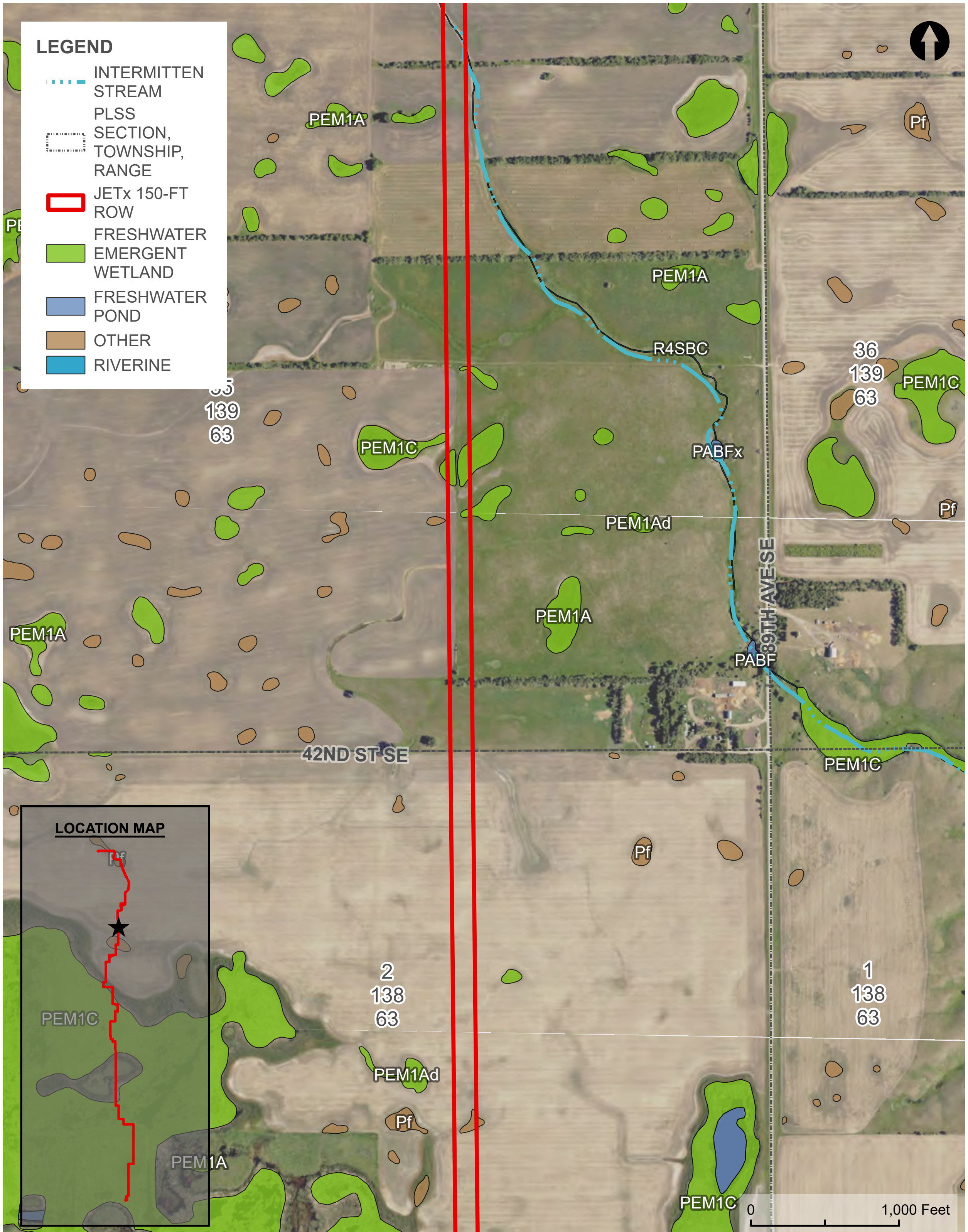
NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



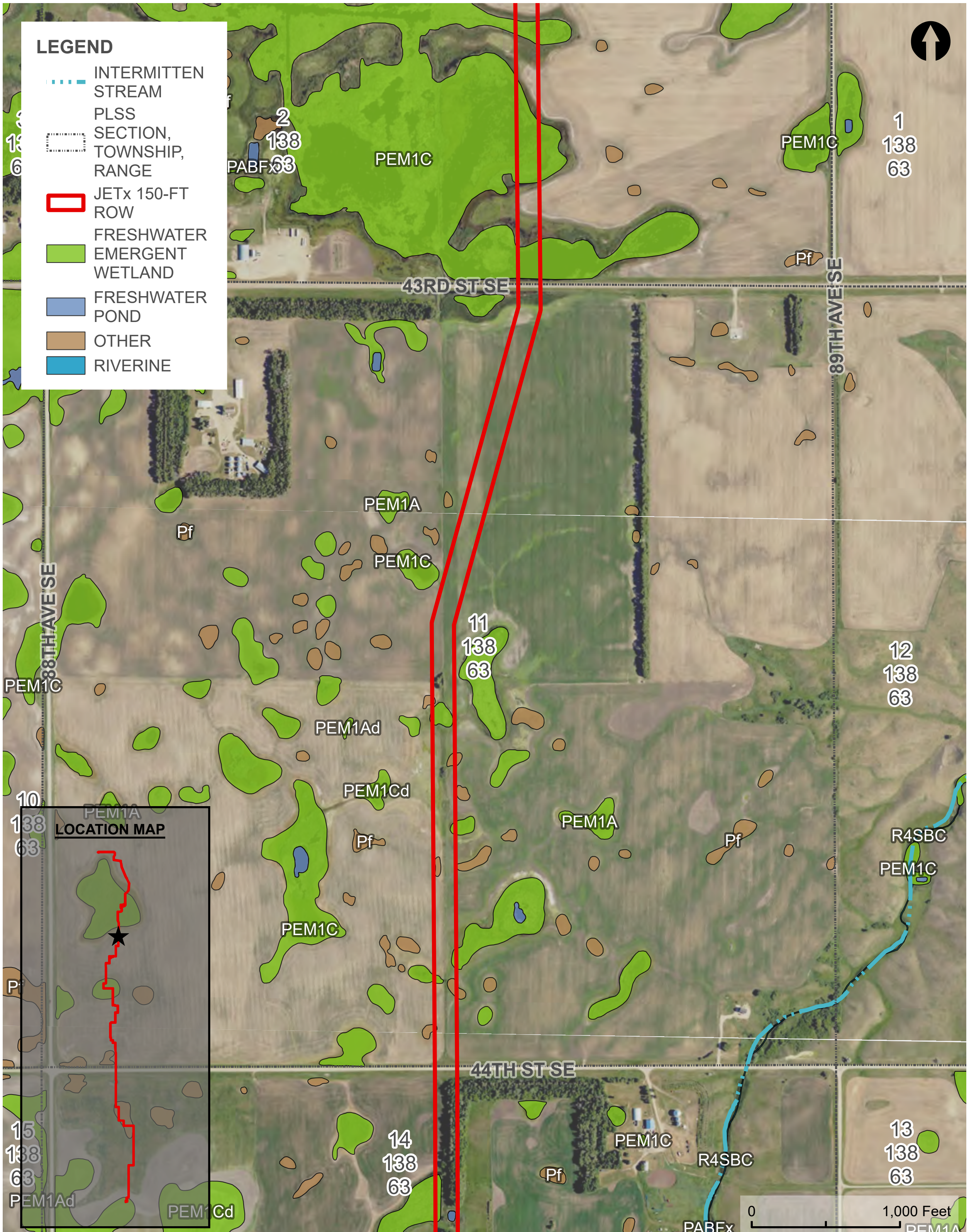
NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

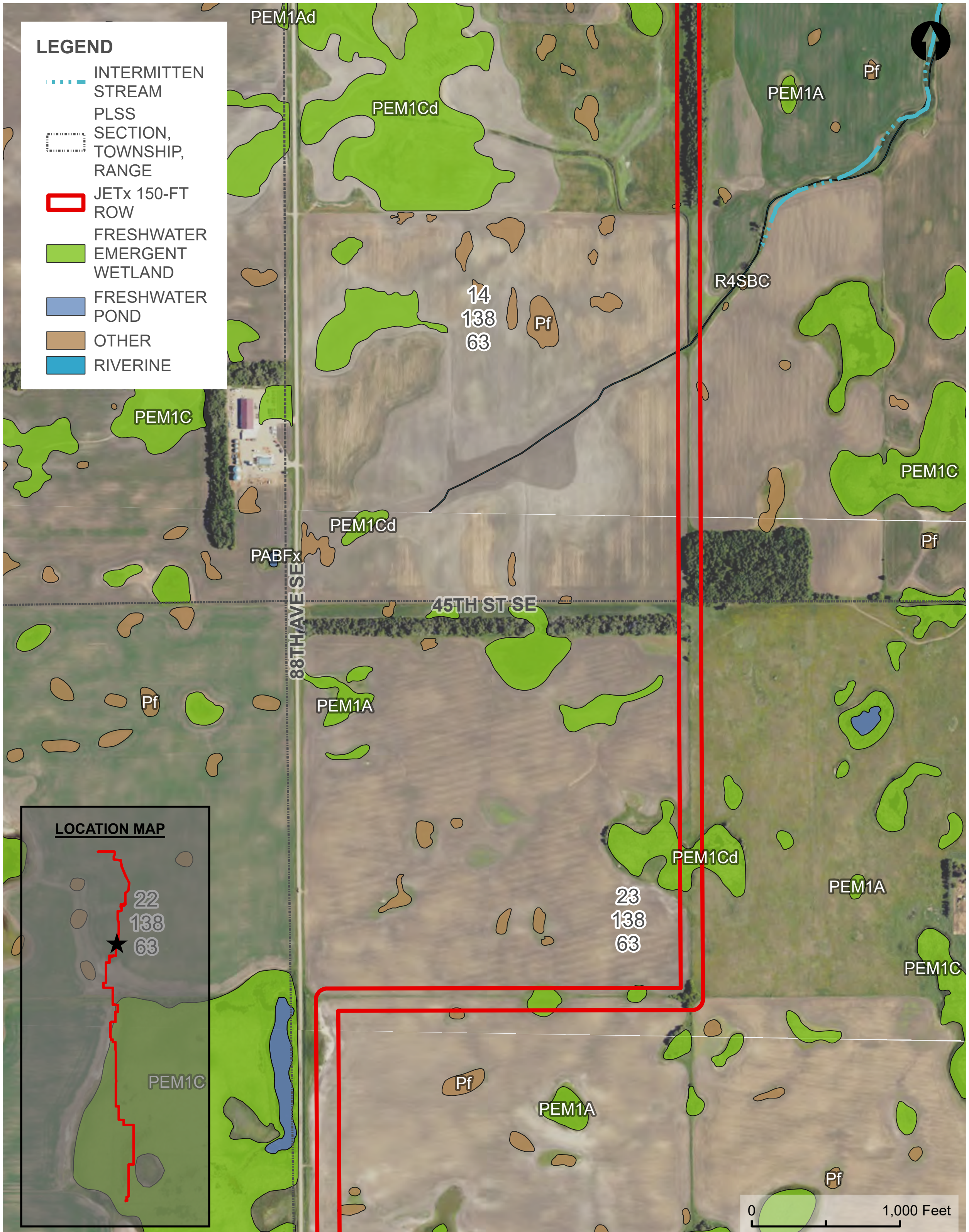
FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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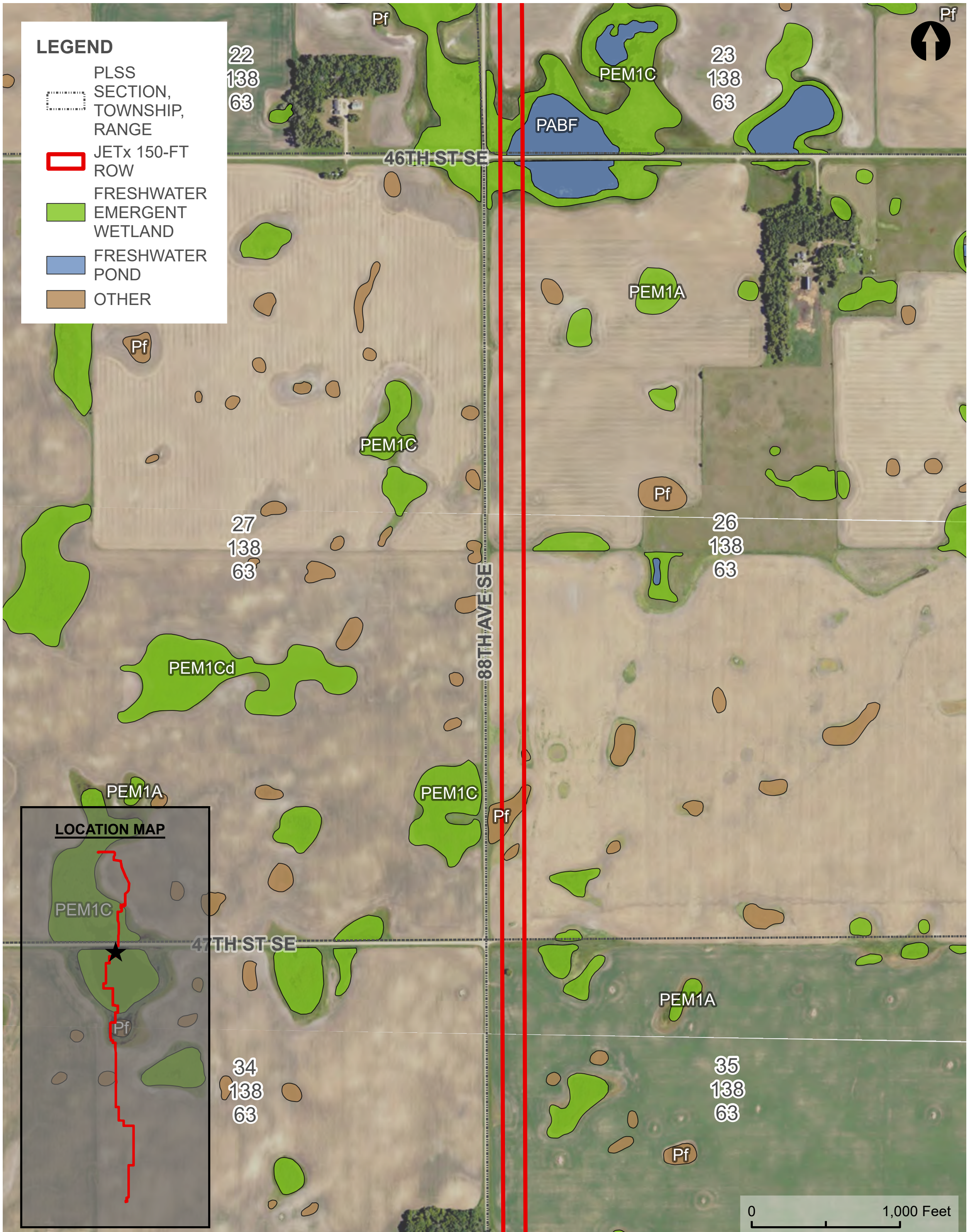
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

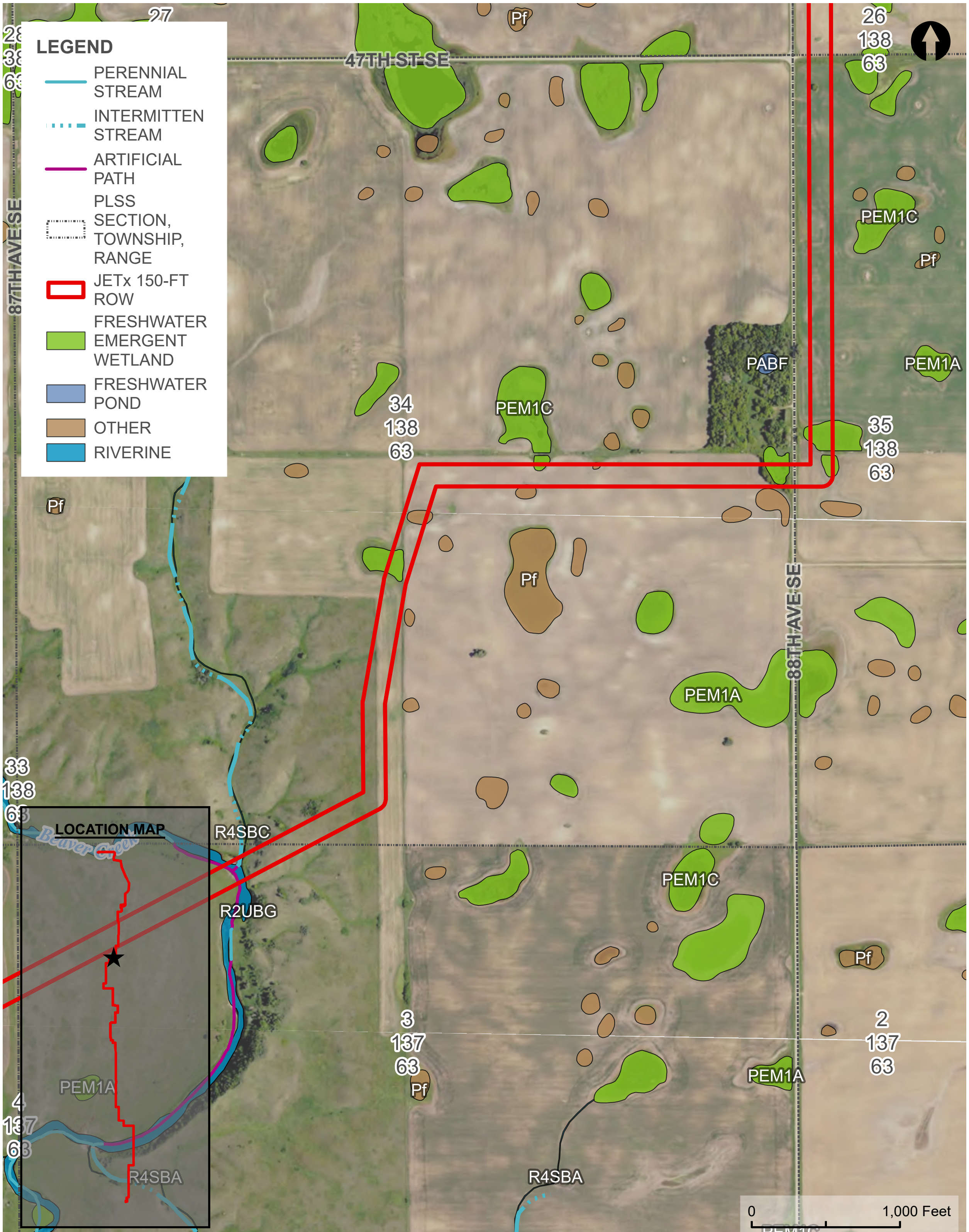


JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

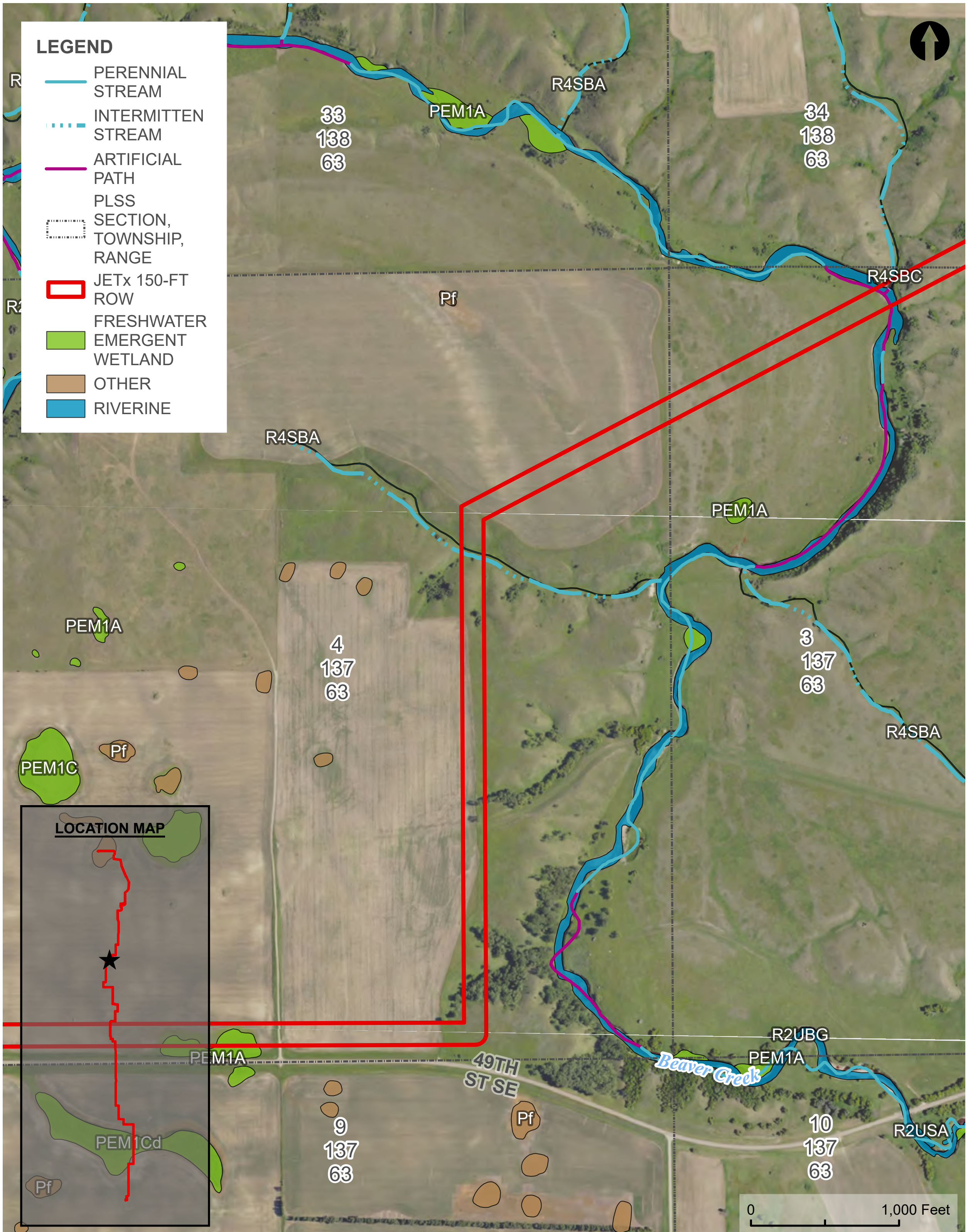
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

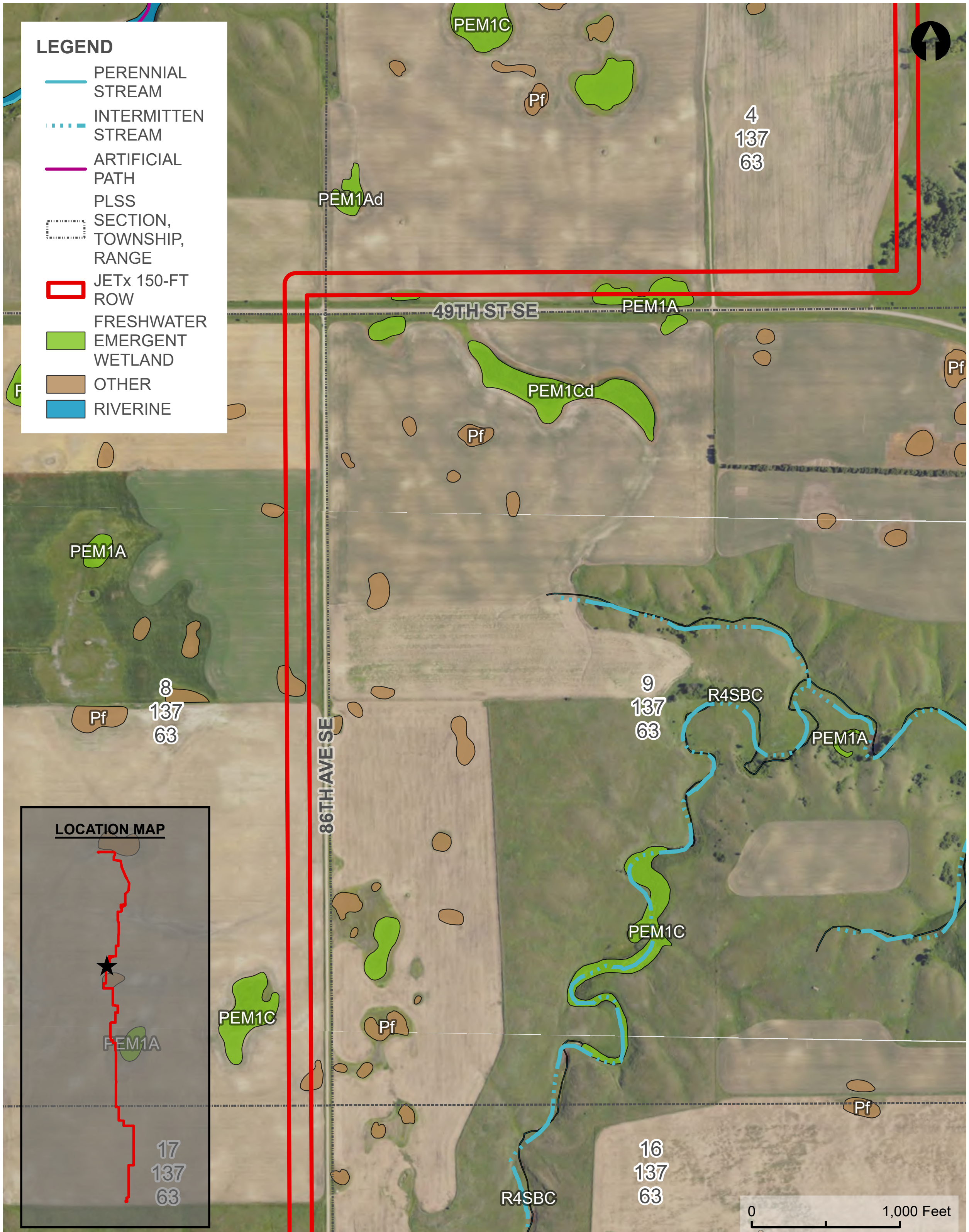
FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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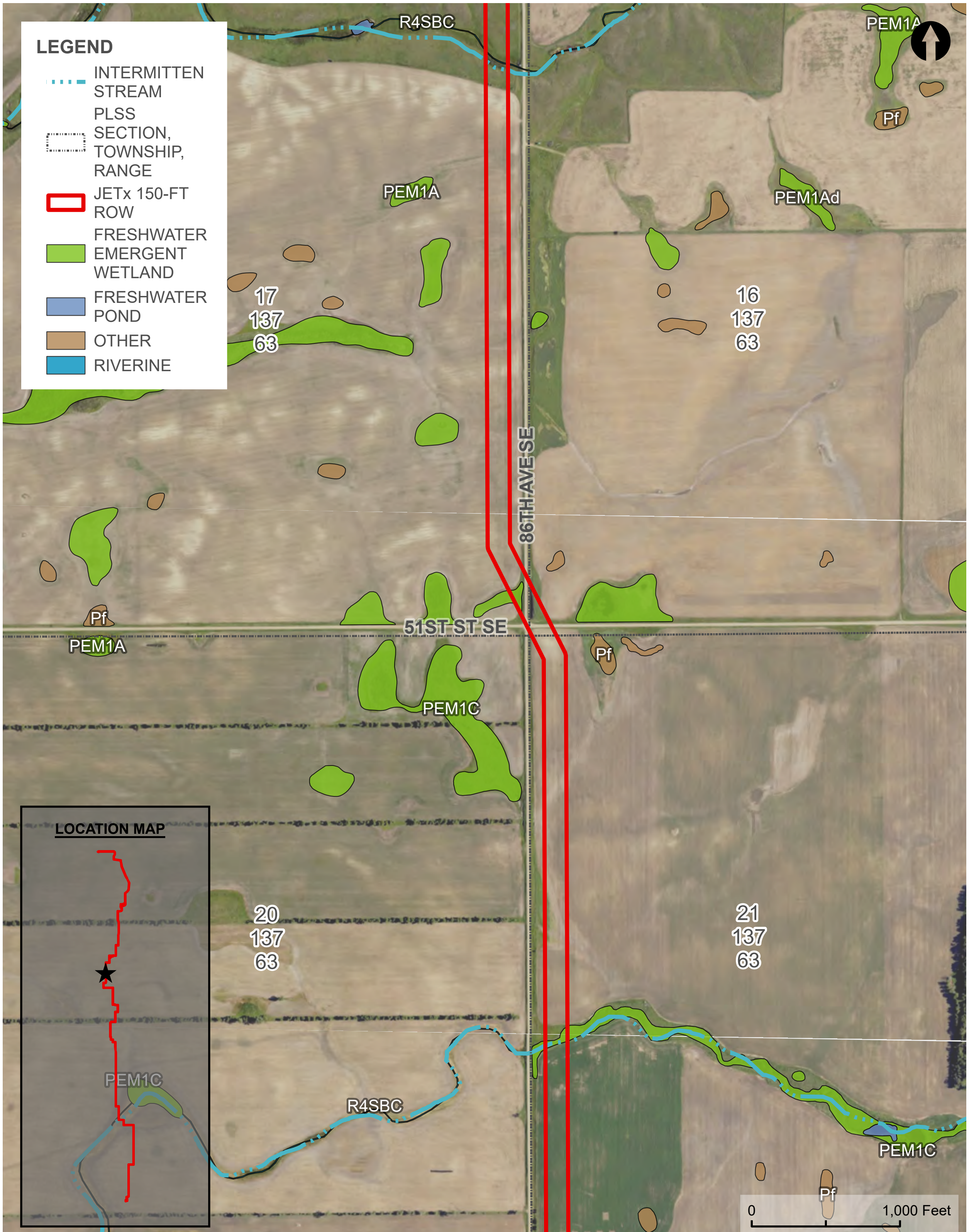
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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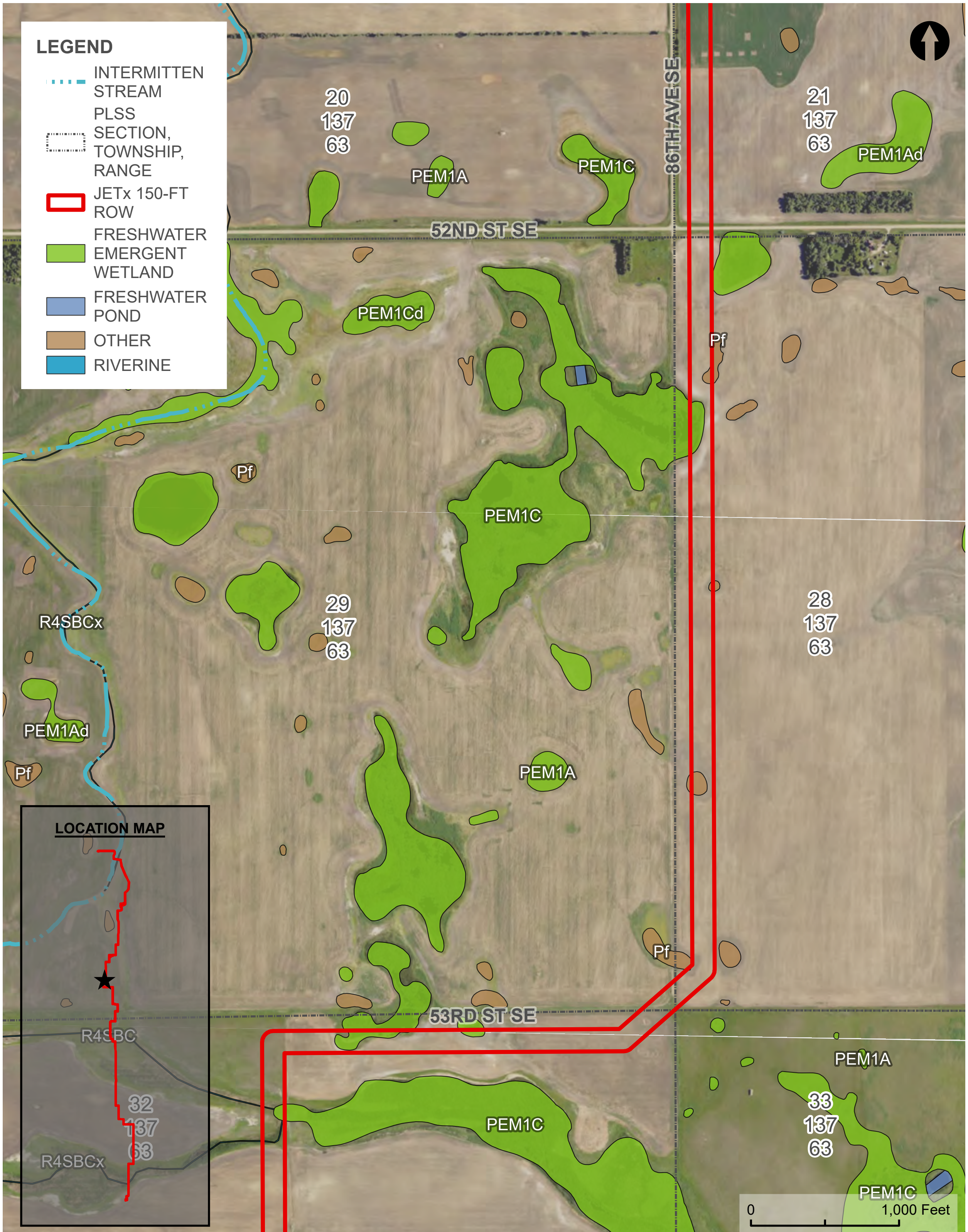
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

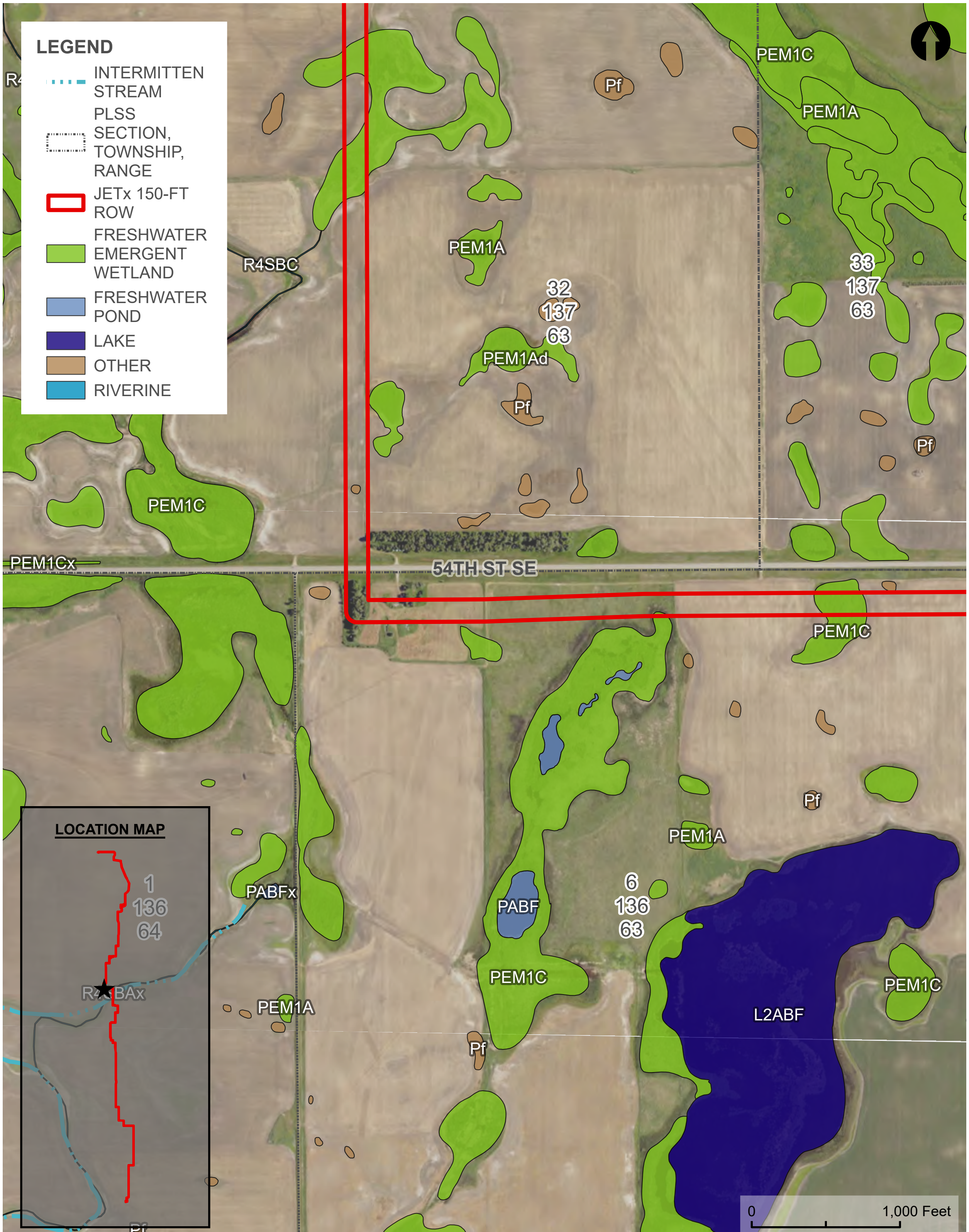


JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

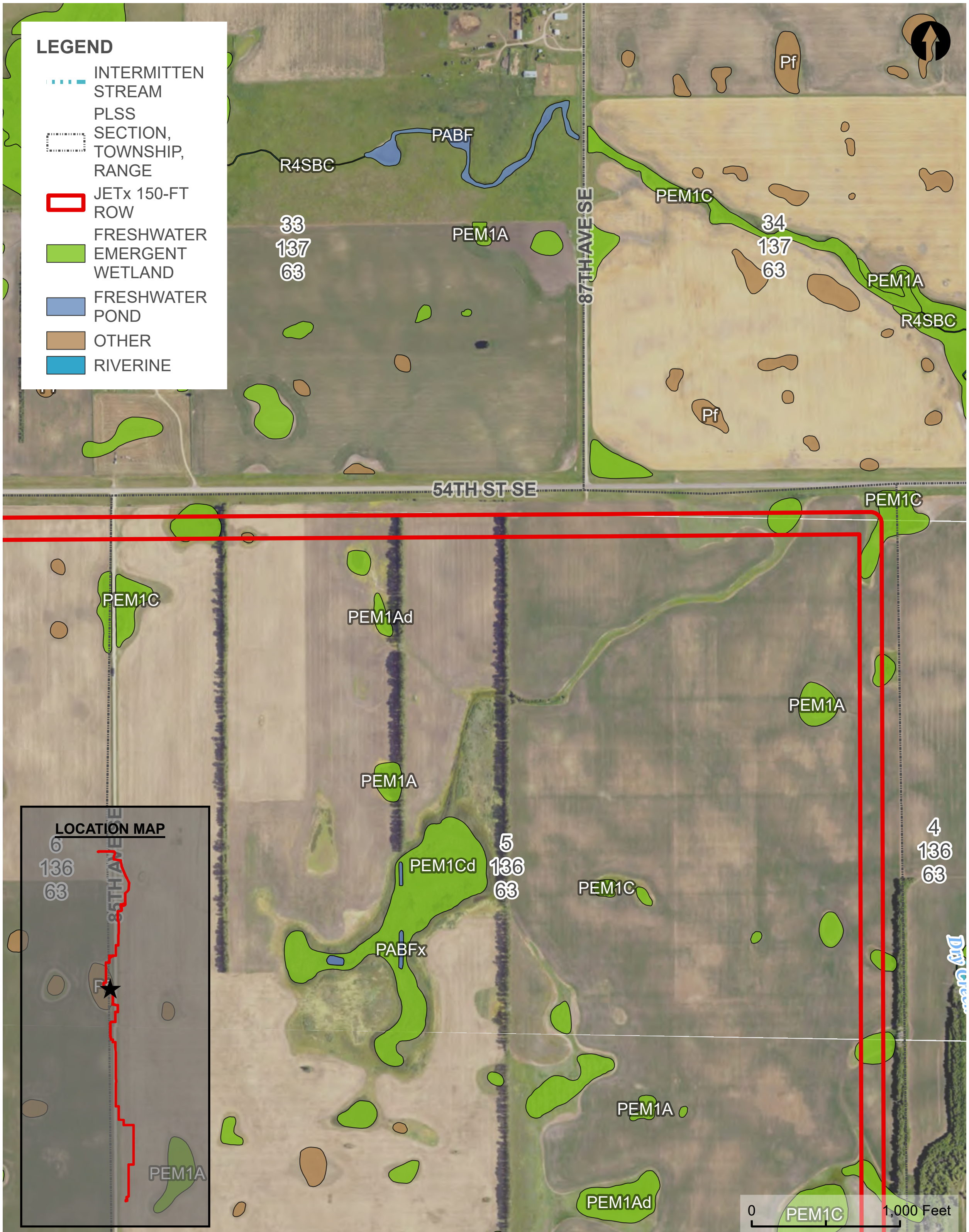
FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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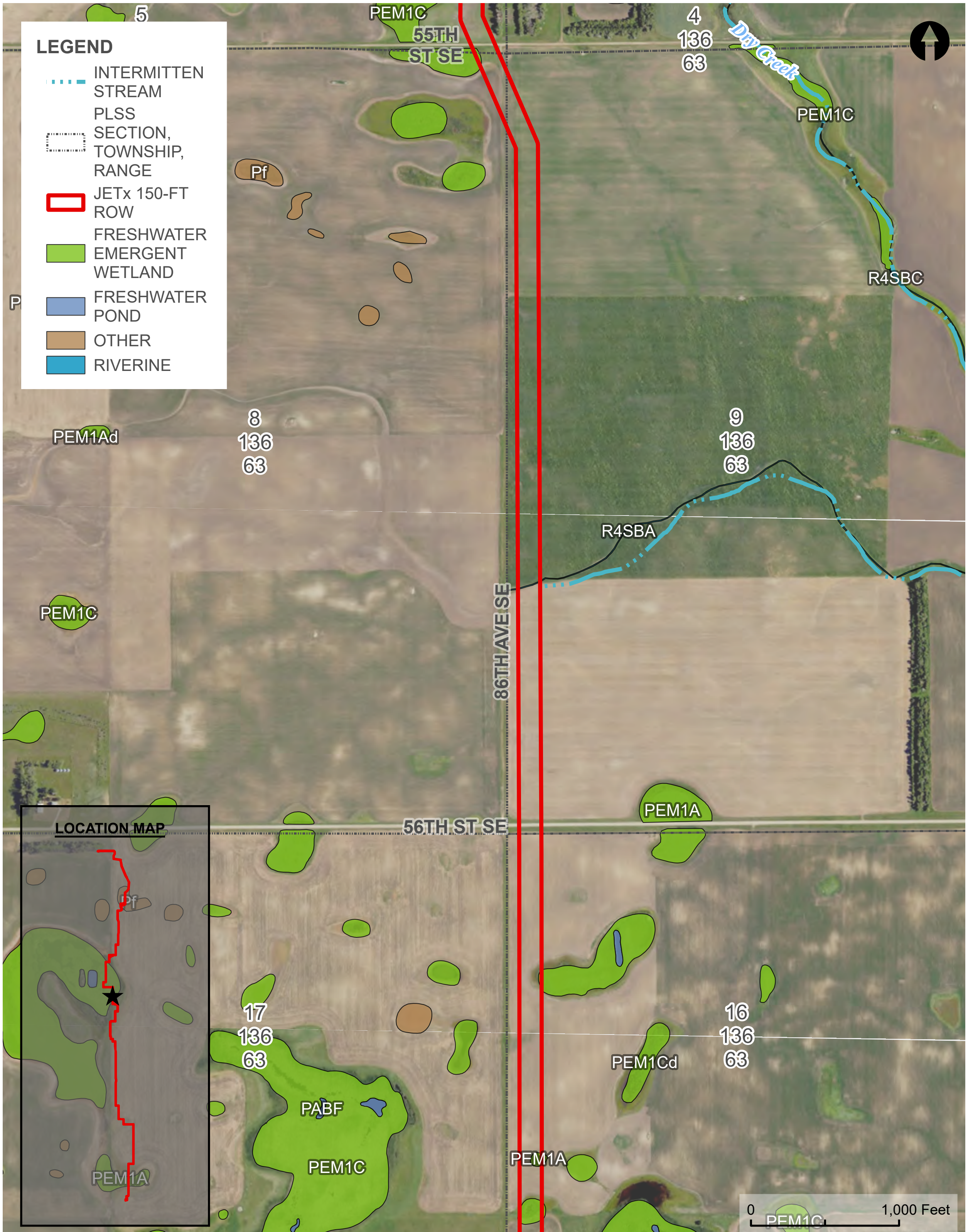
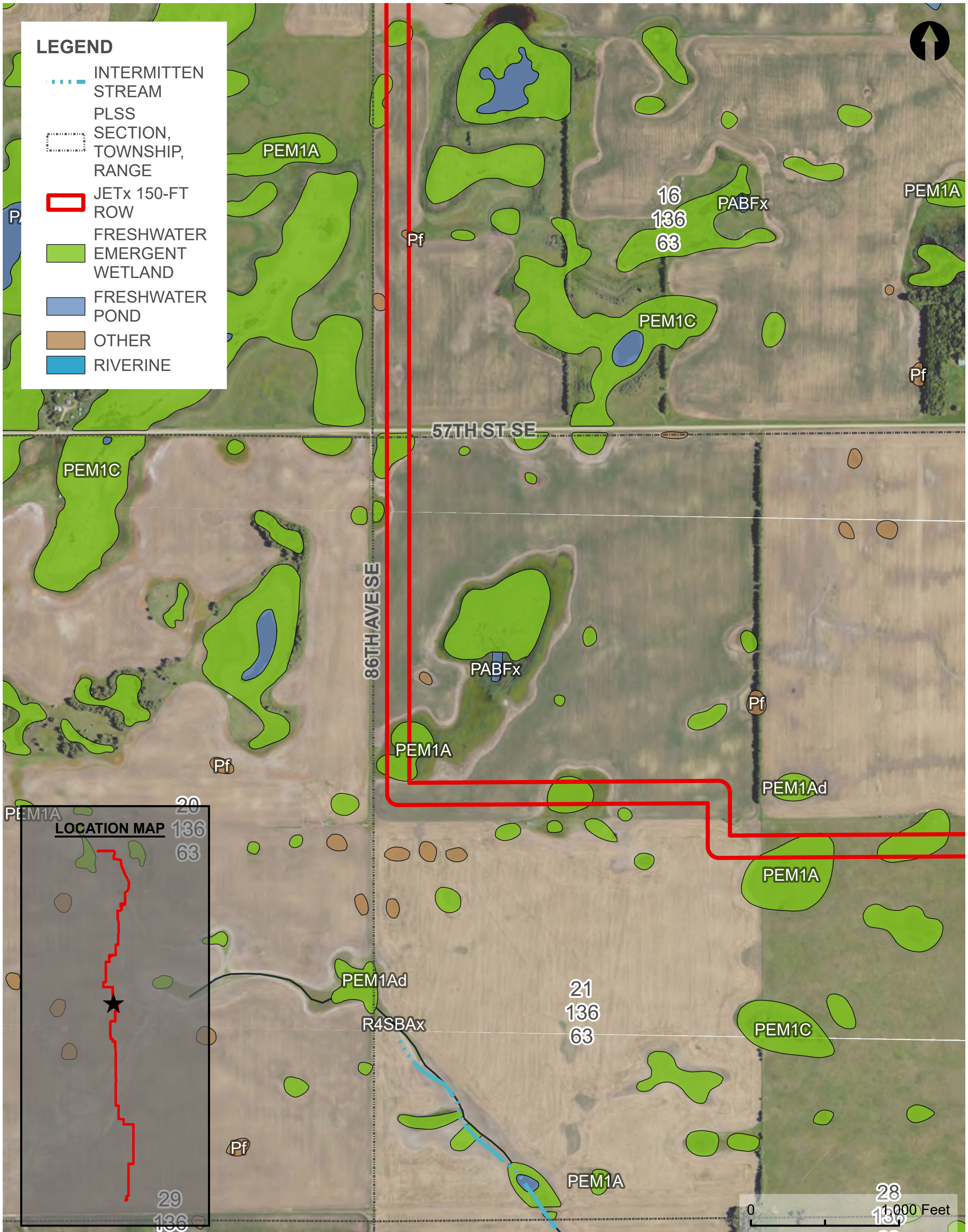
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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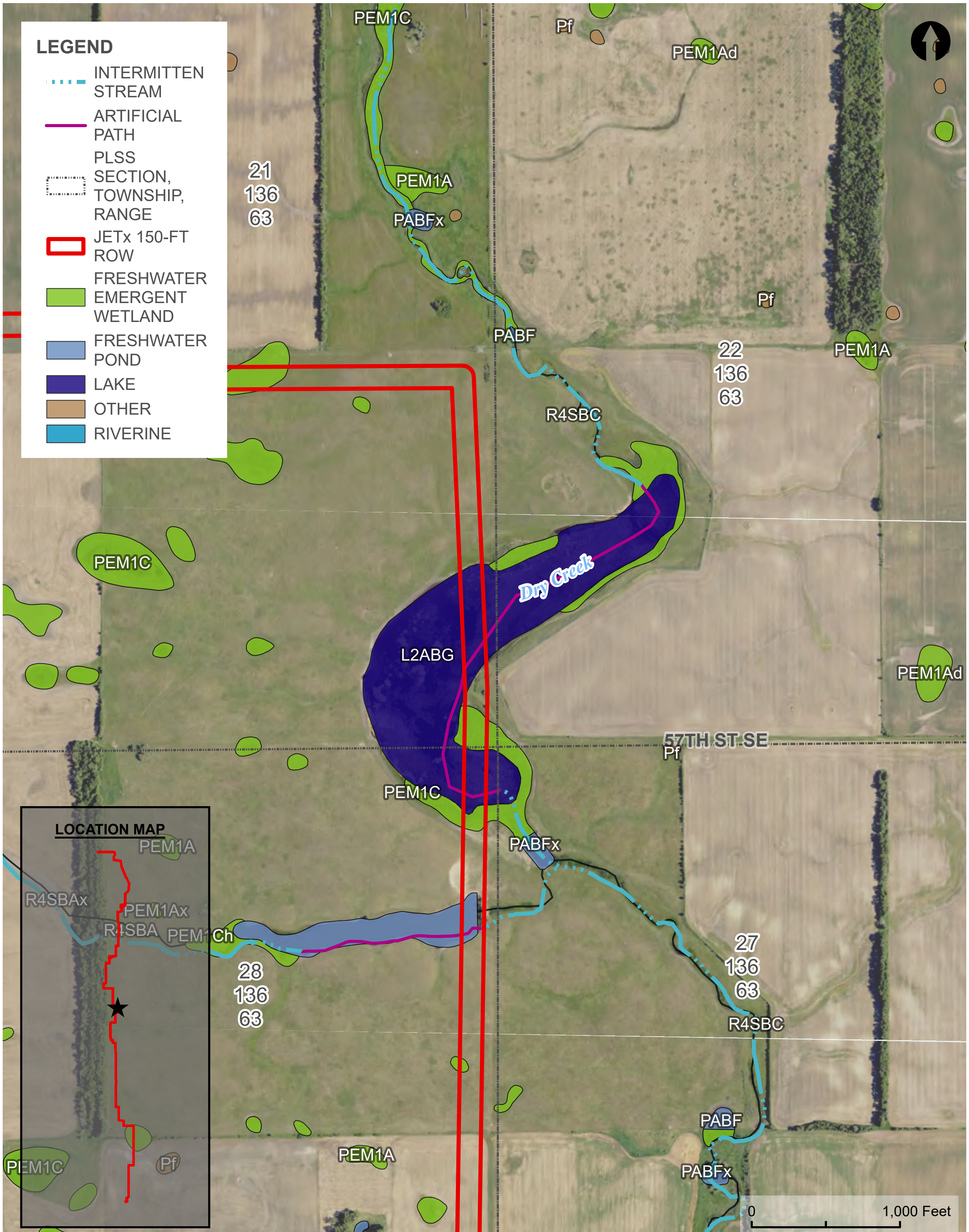
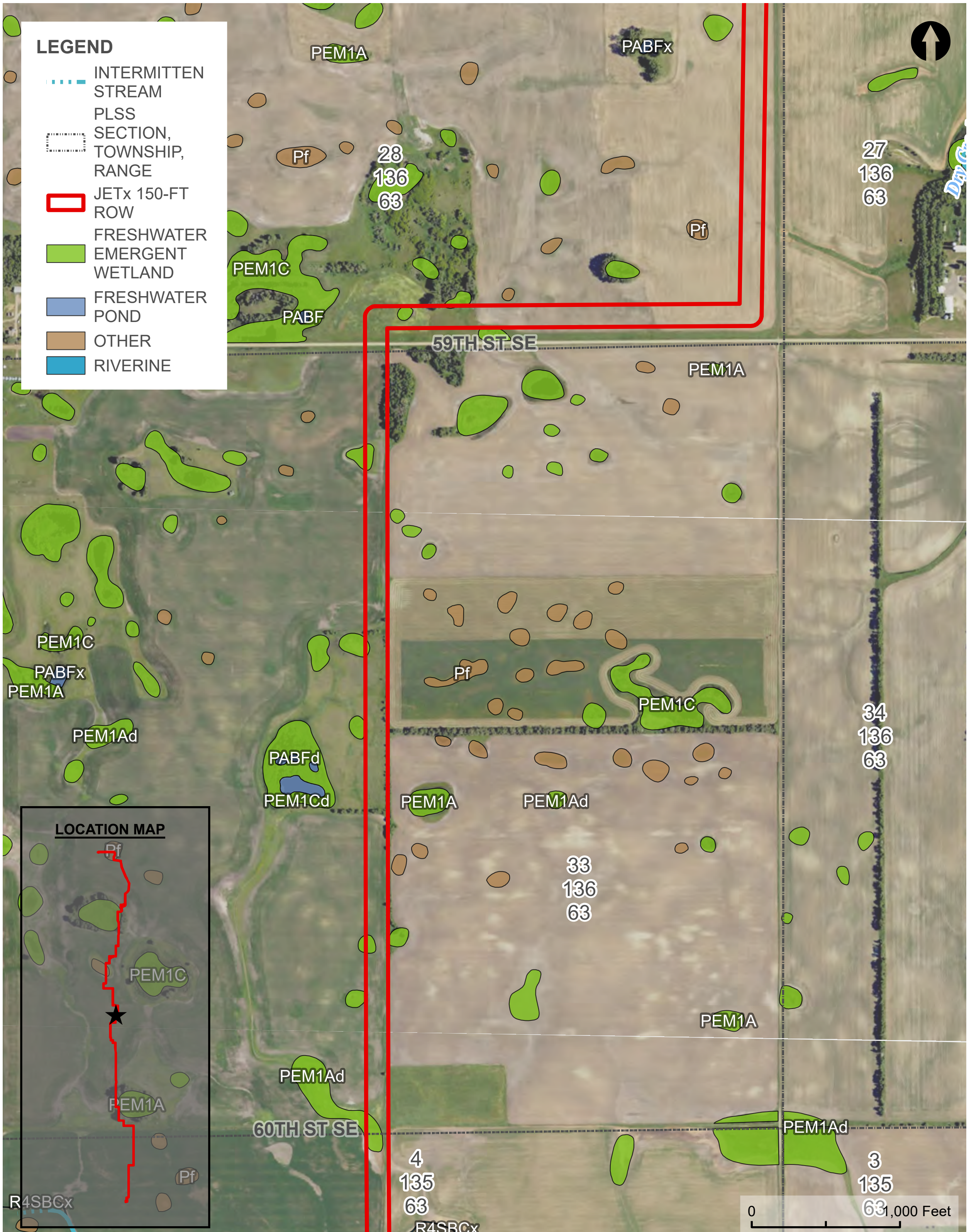
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

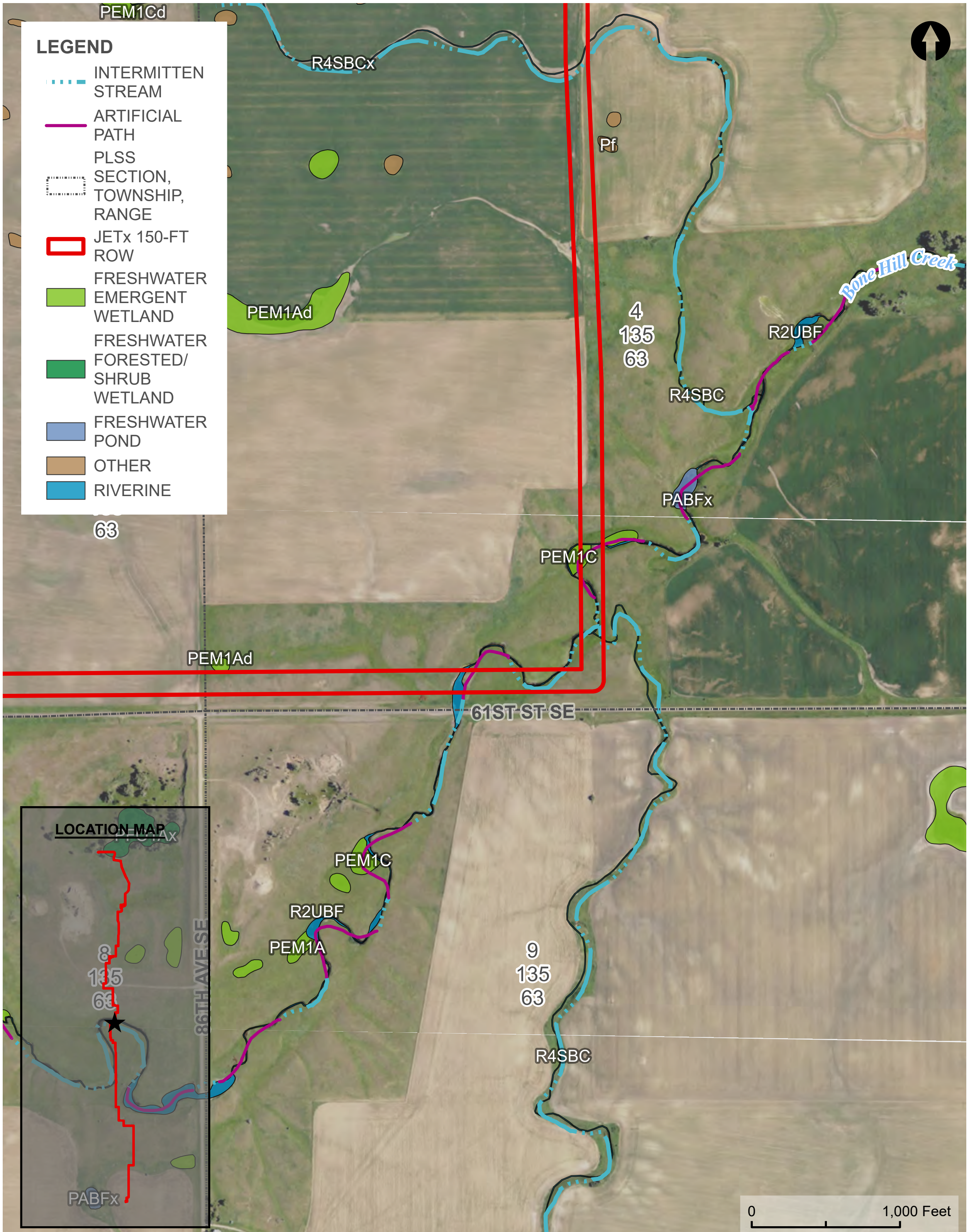
FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

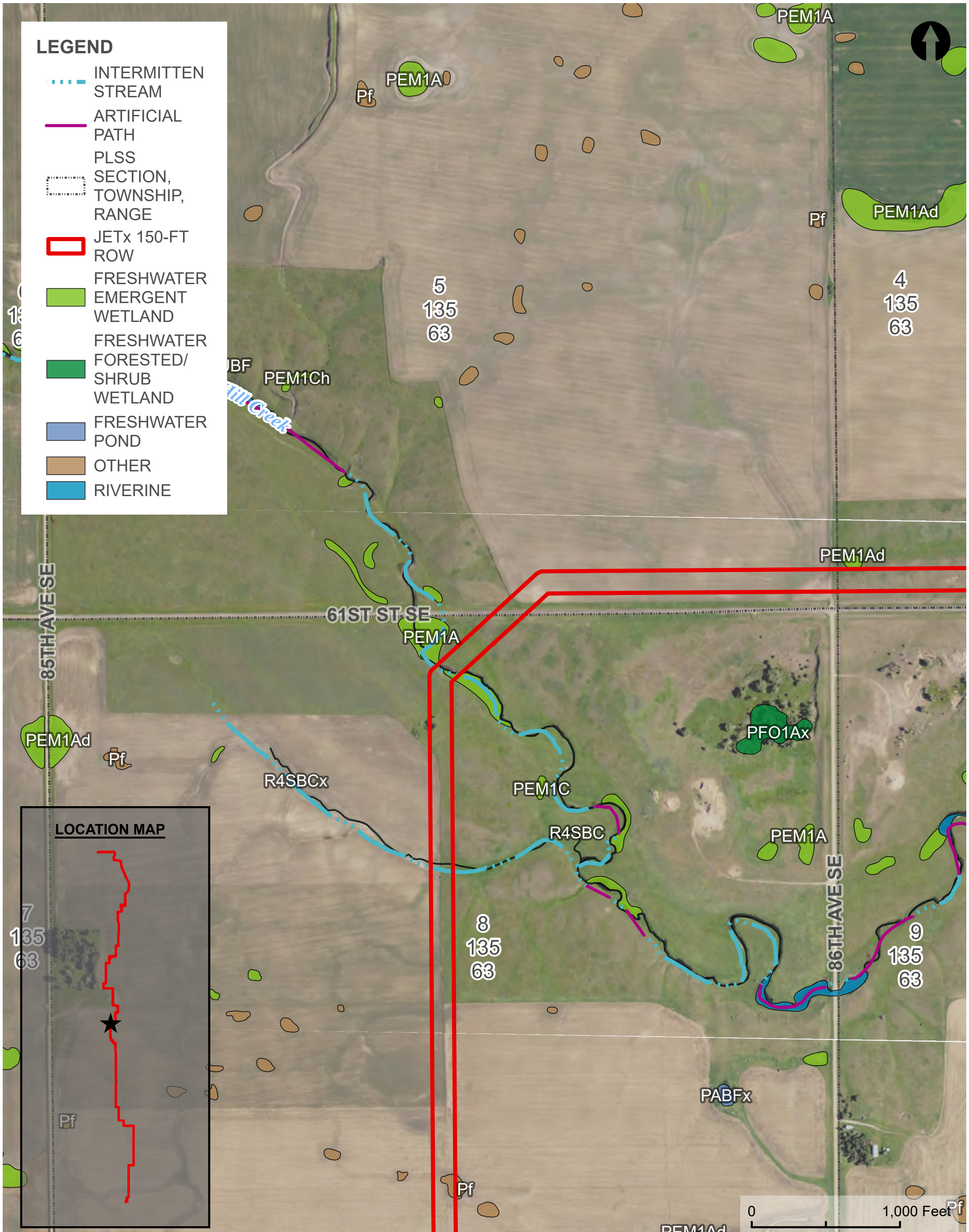
FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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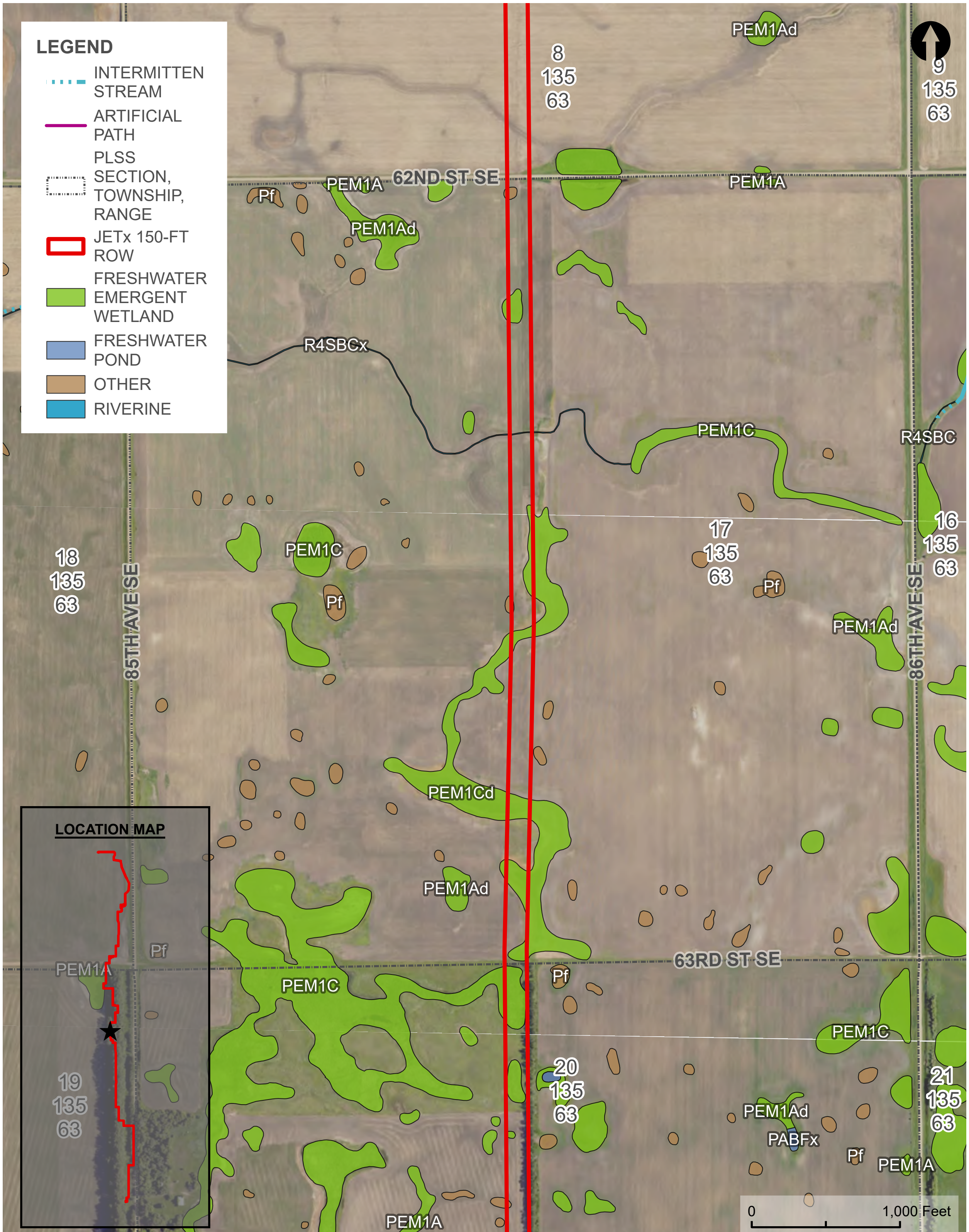
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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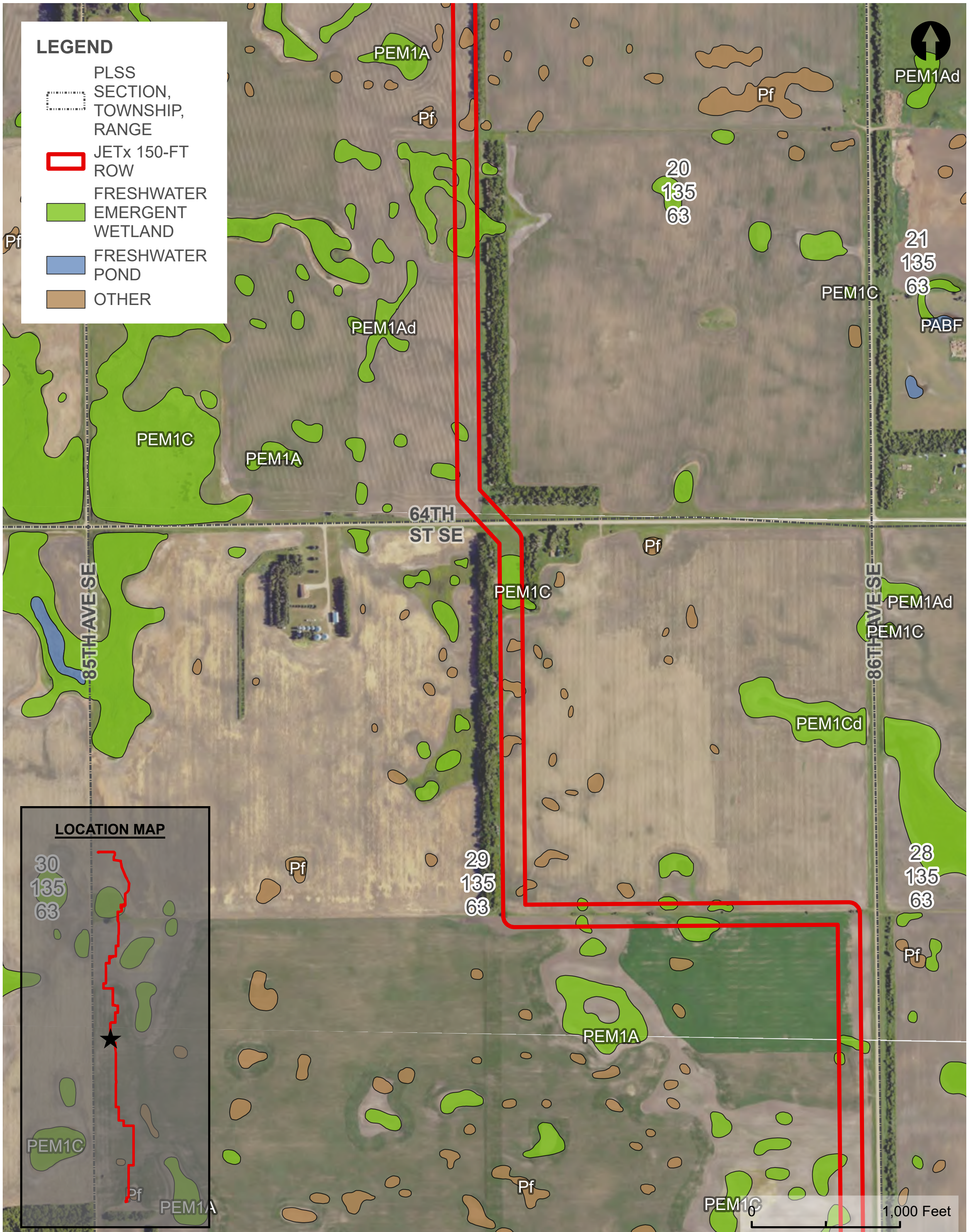
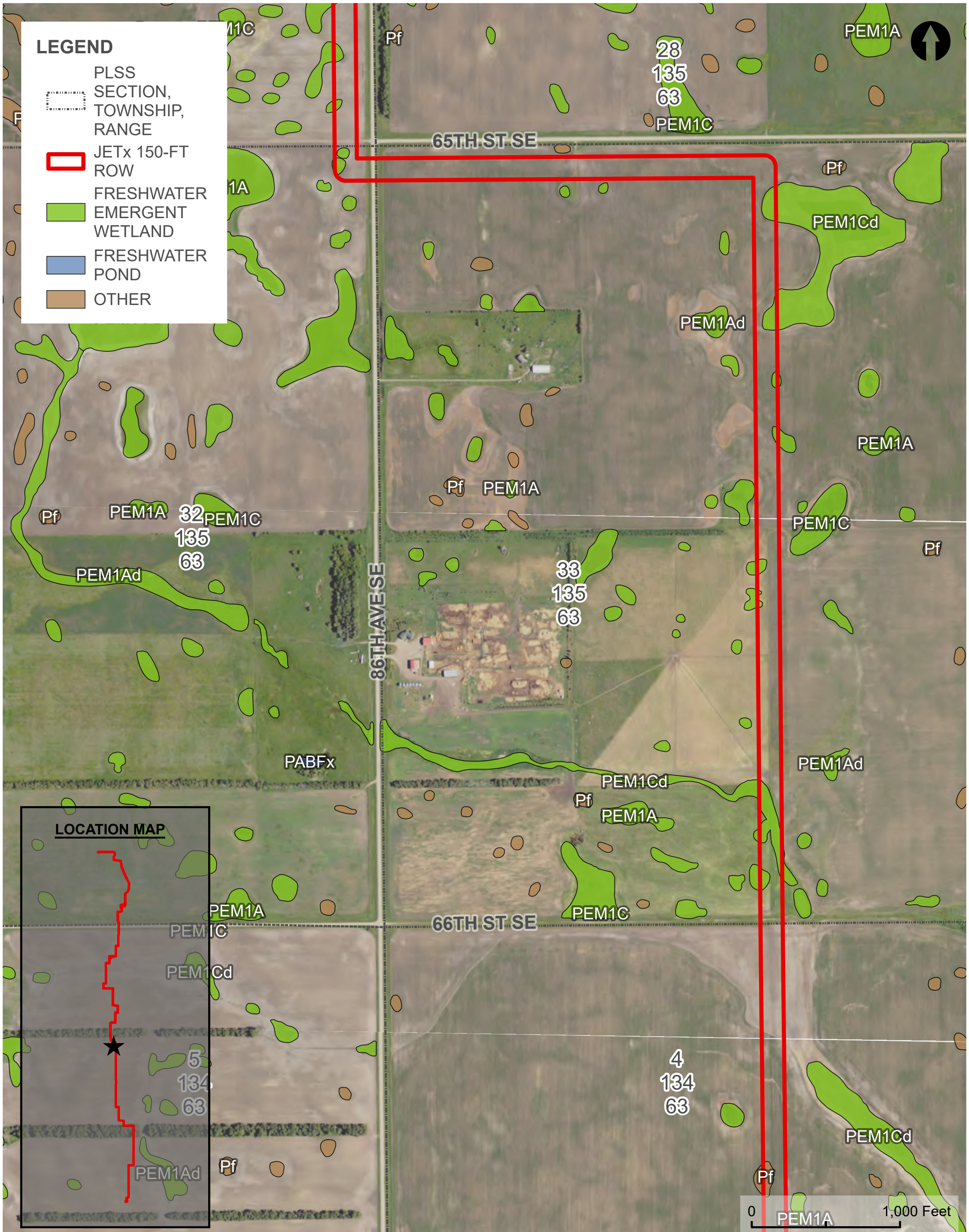
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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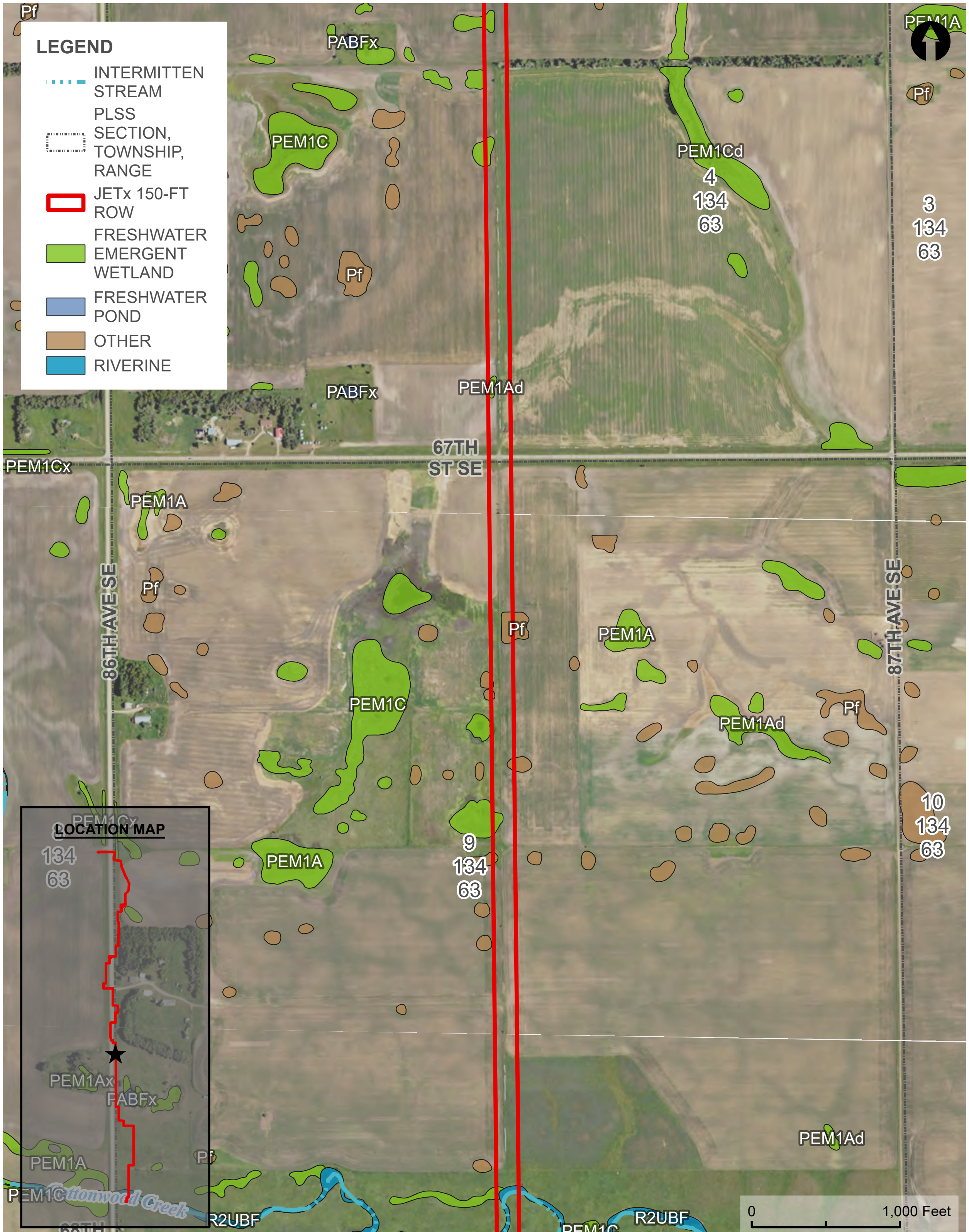
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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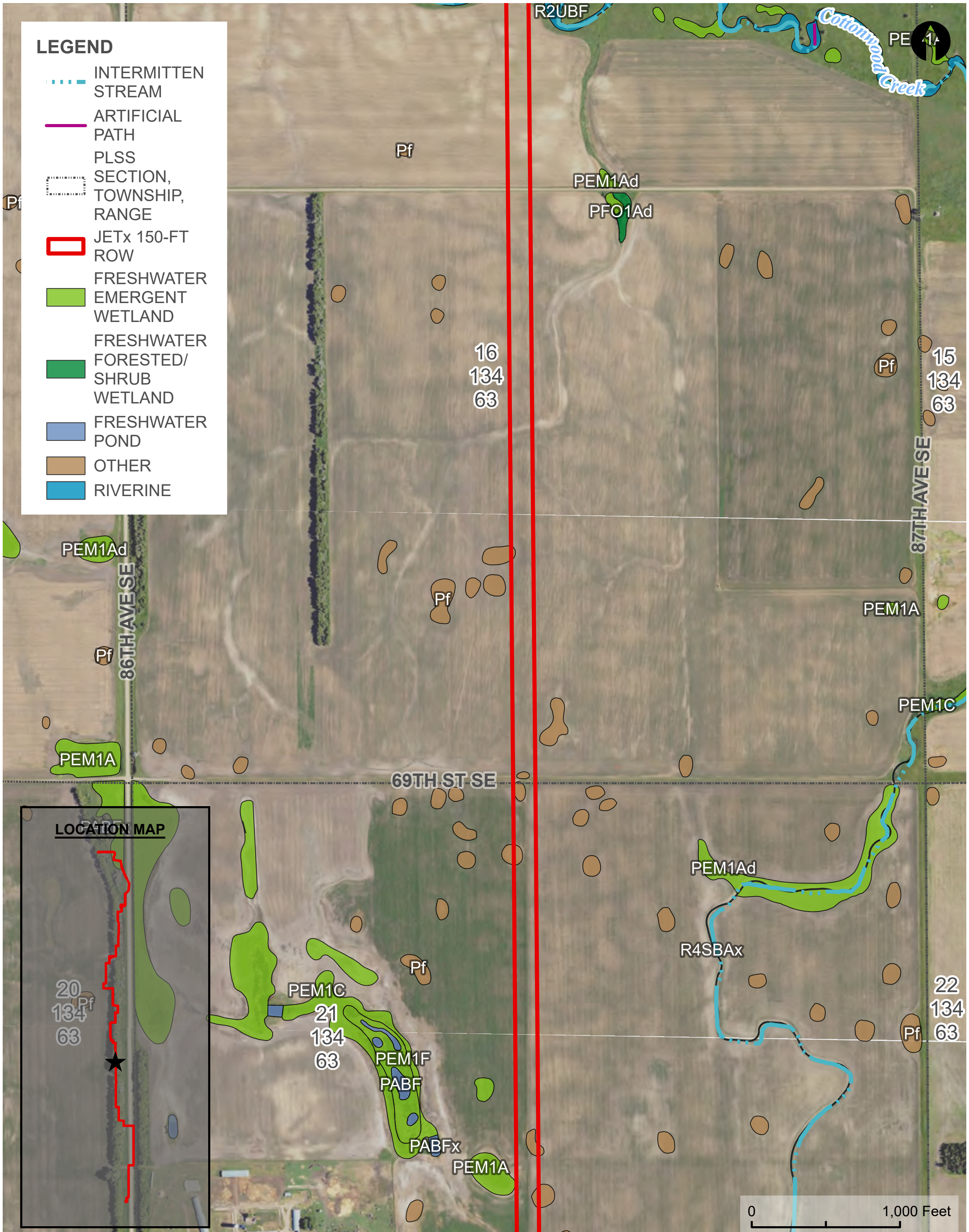
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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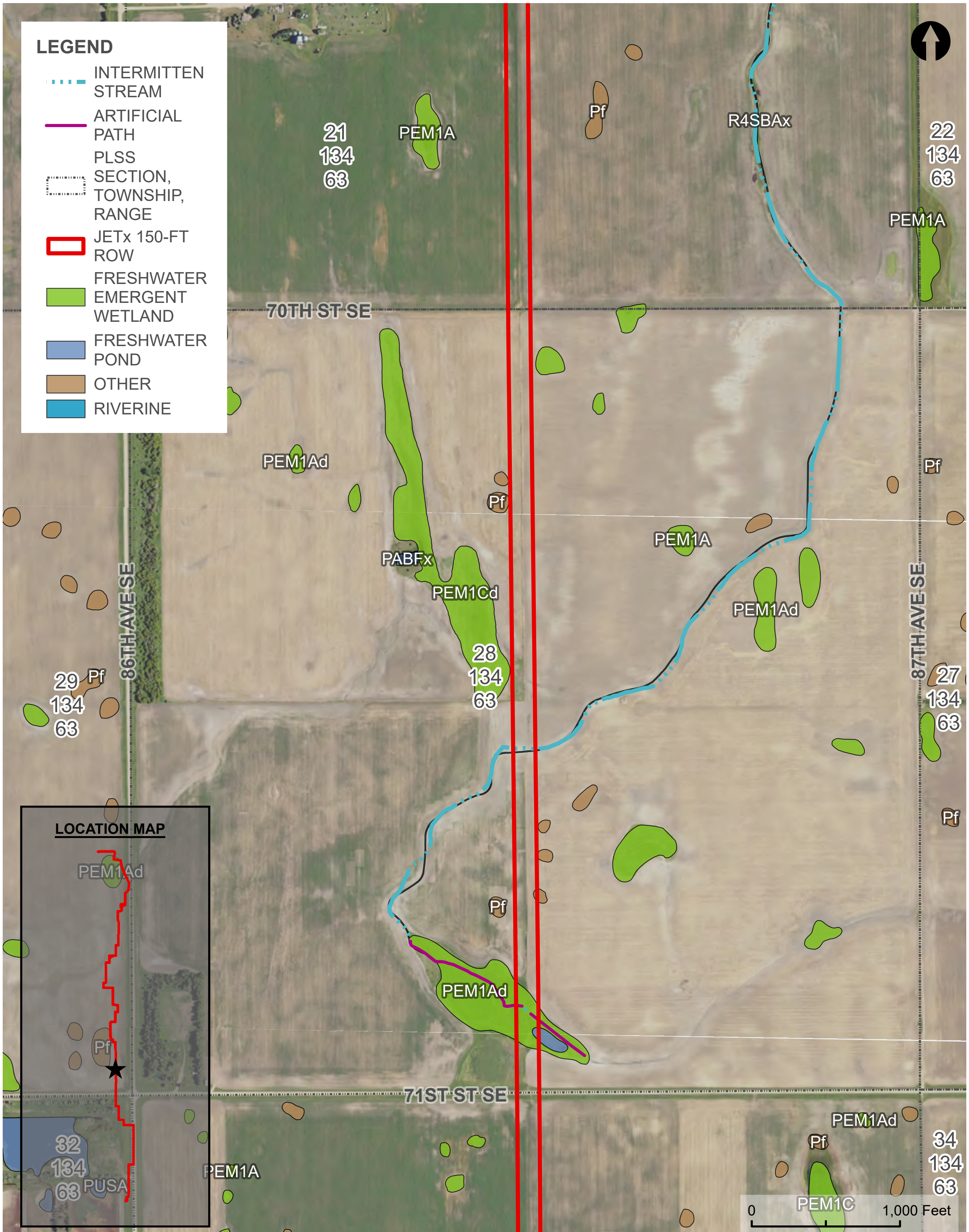
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

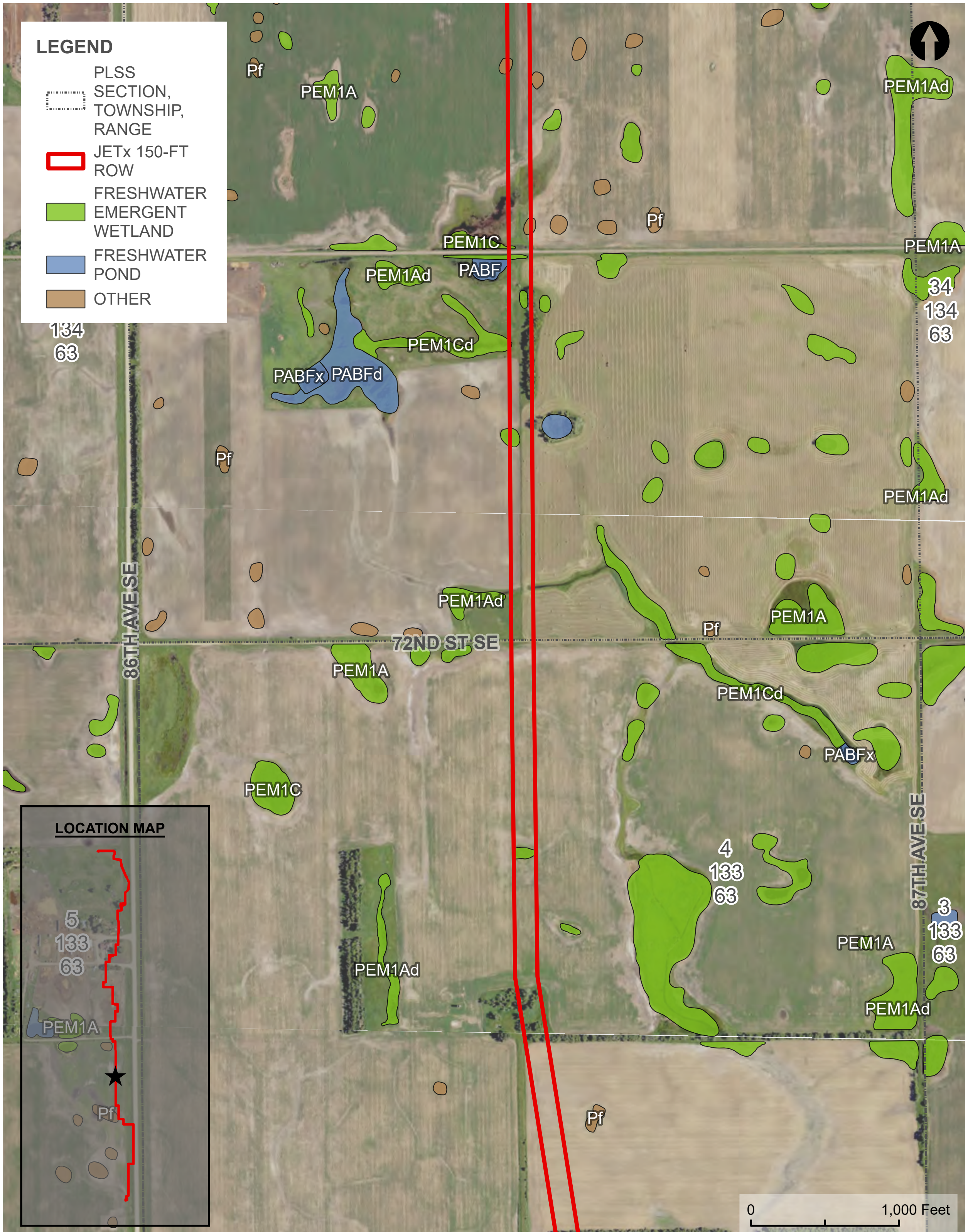


JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

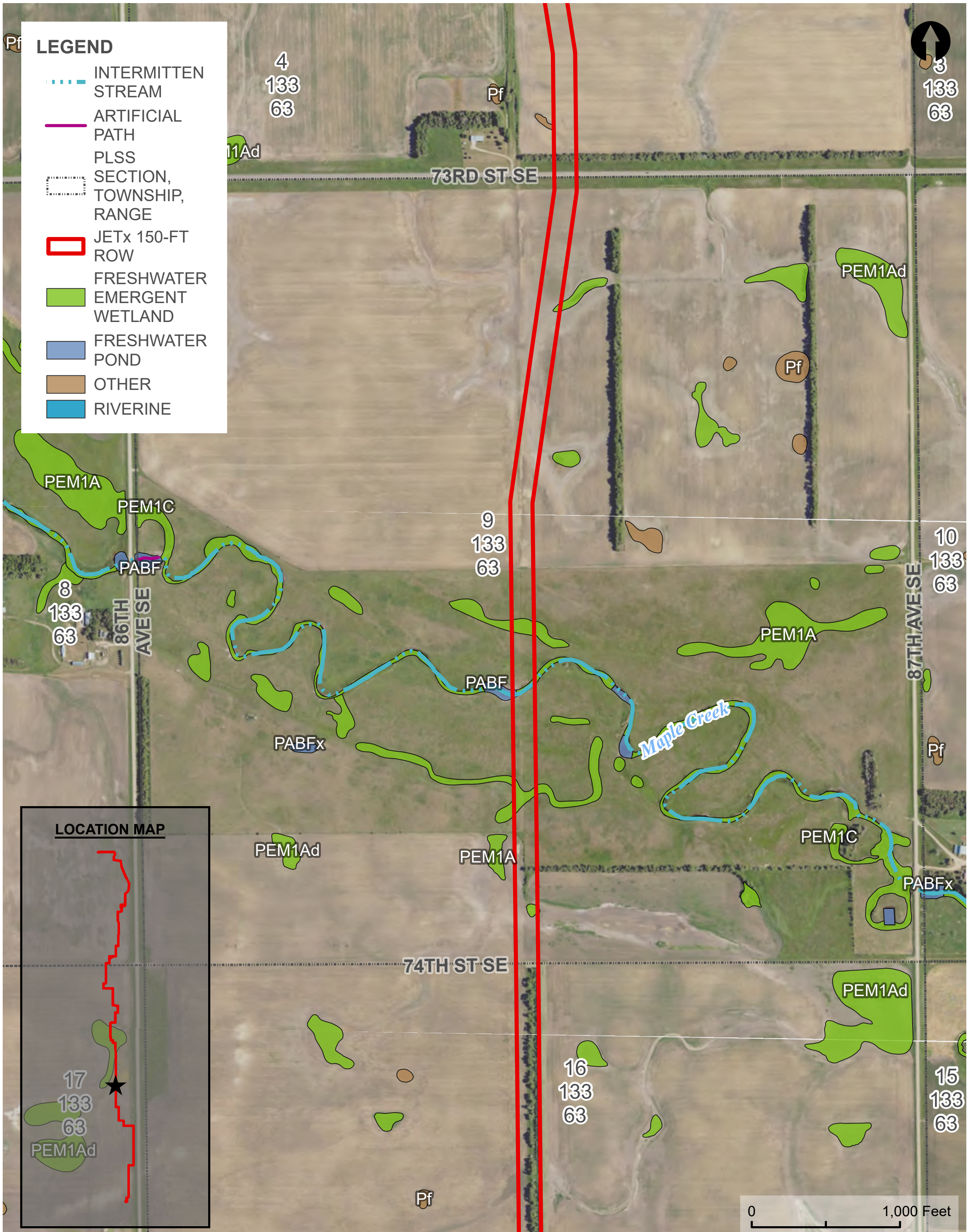


JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

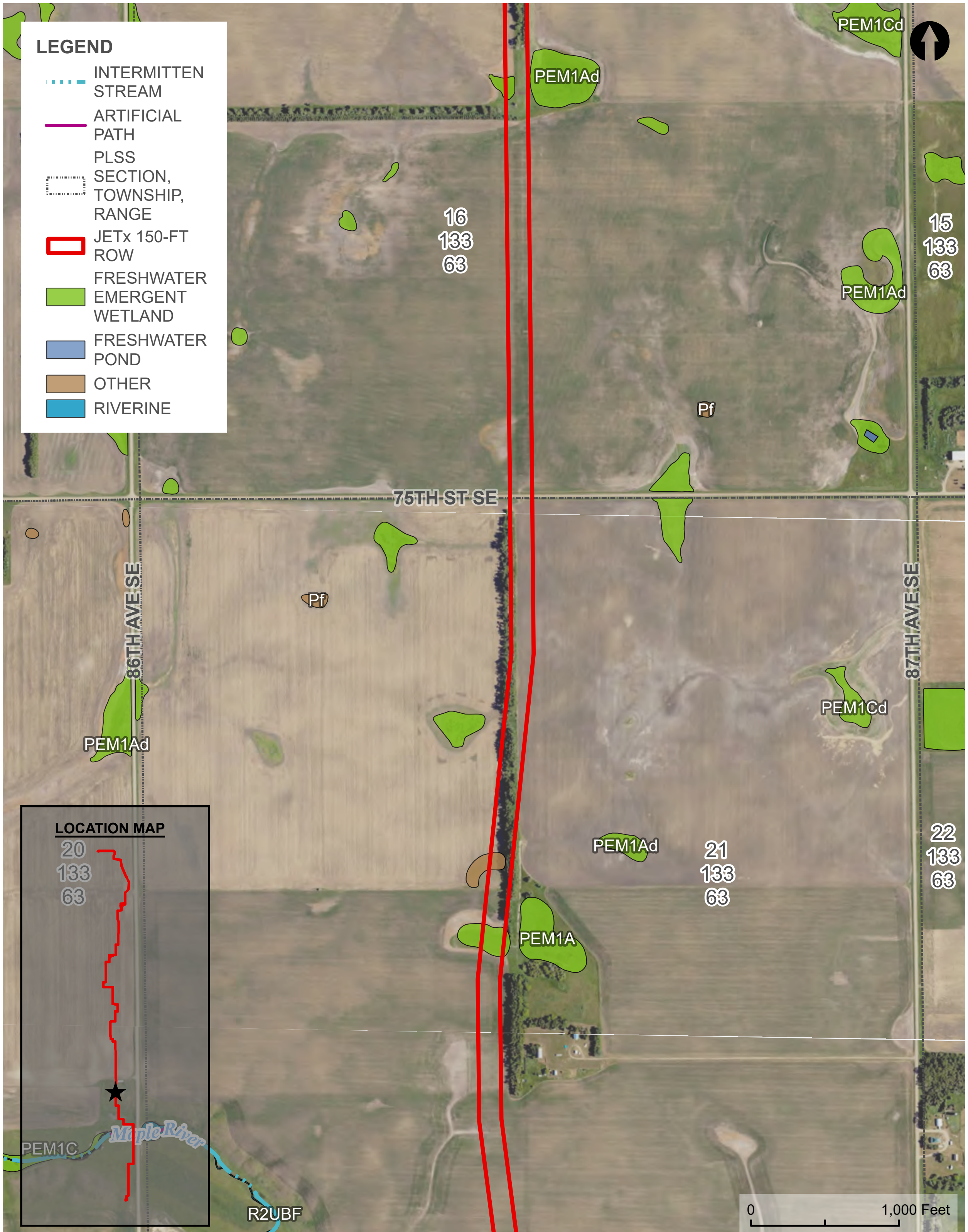


JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

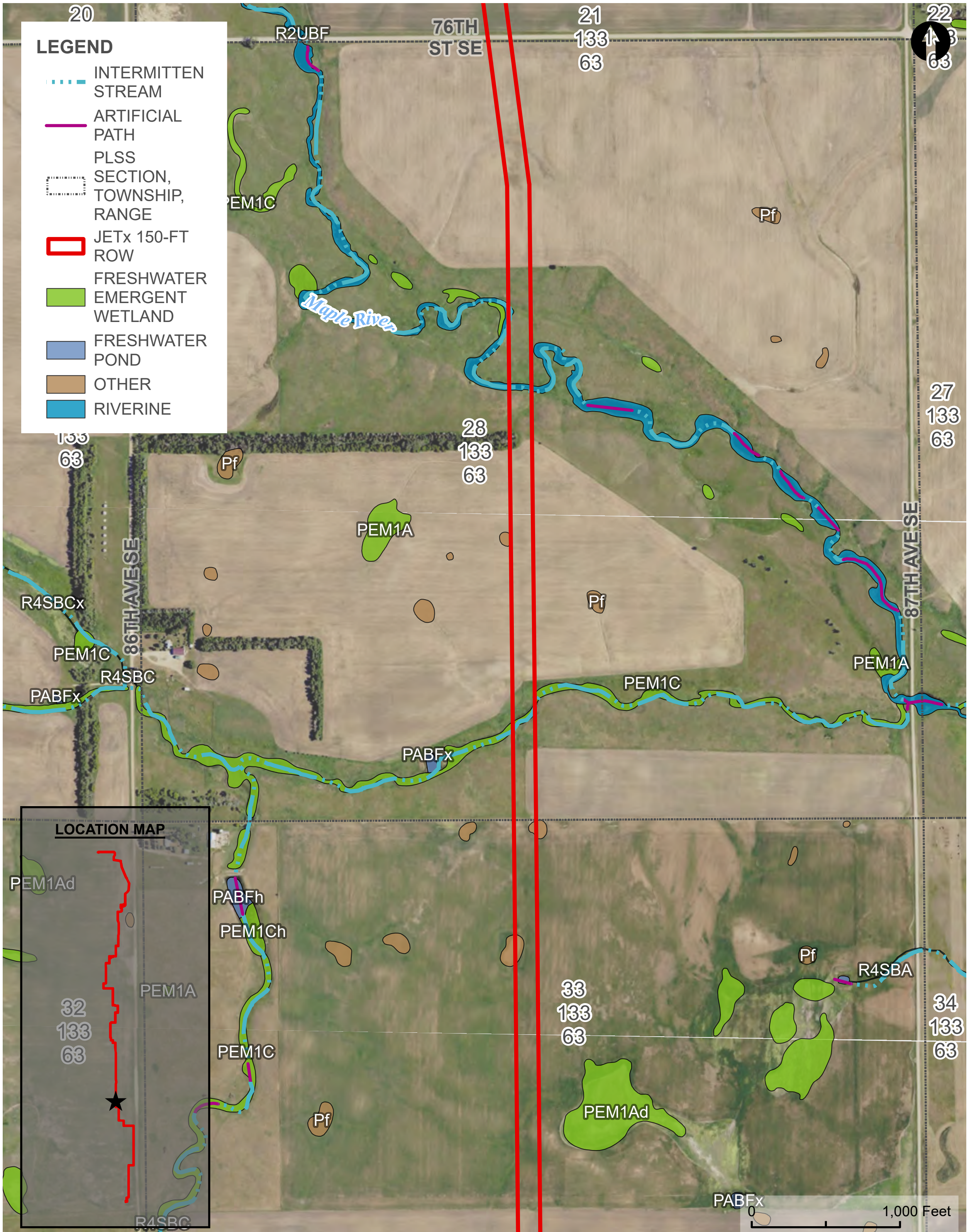
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

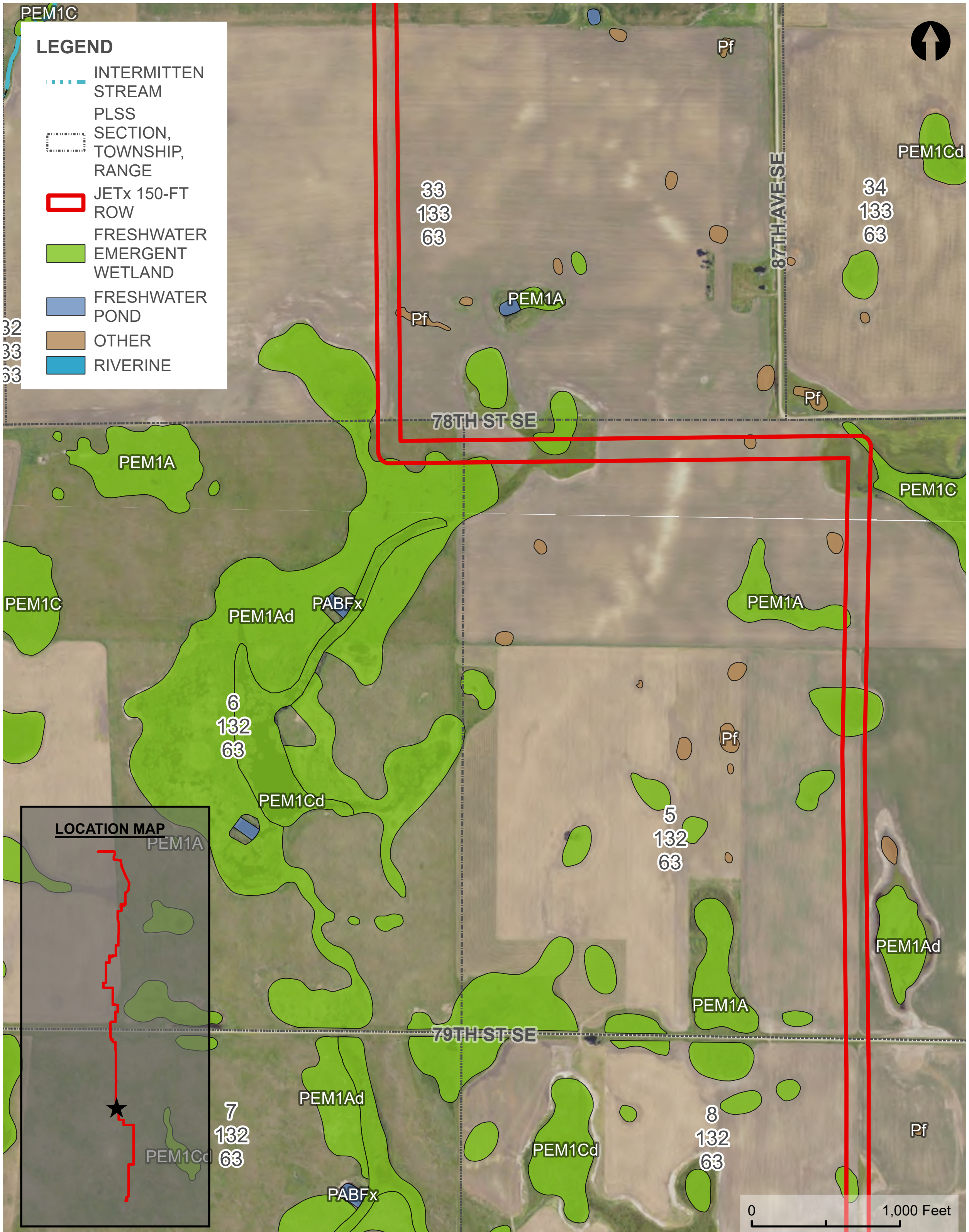
FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



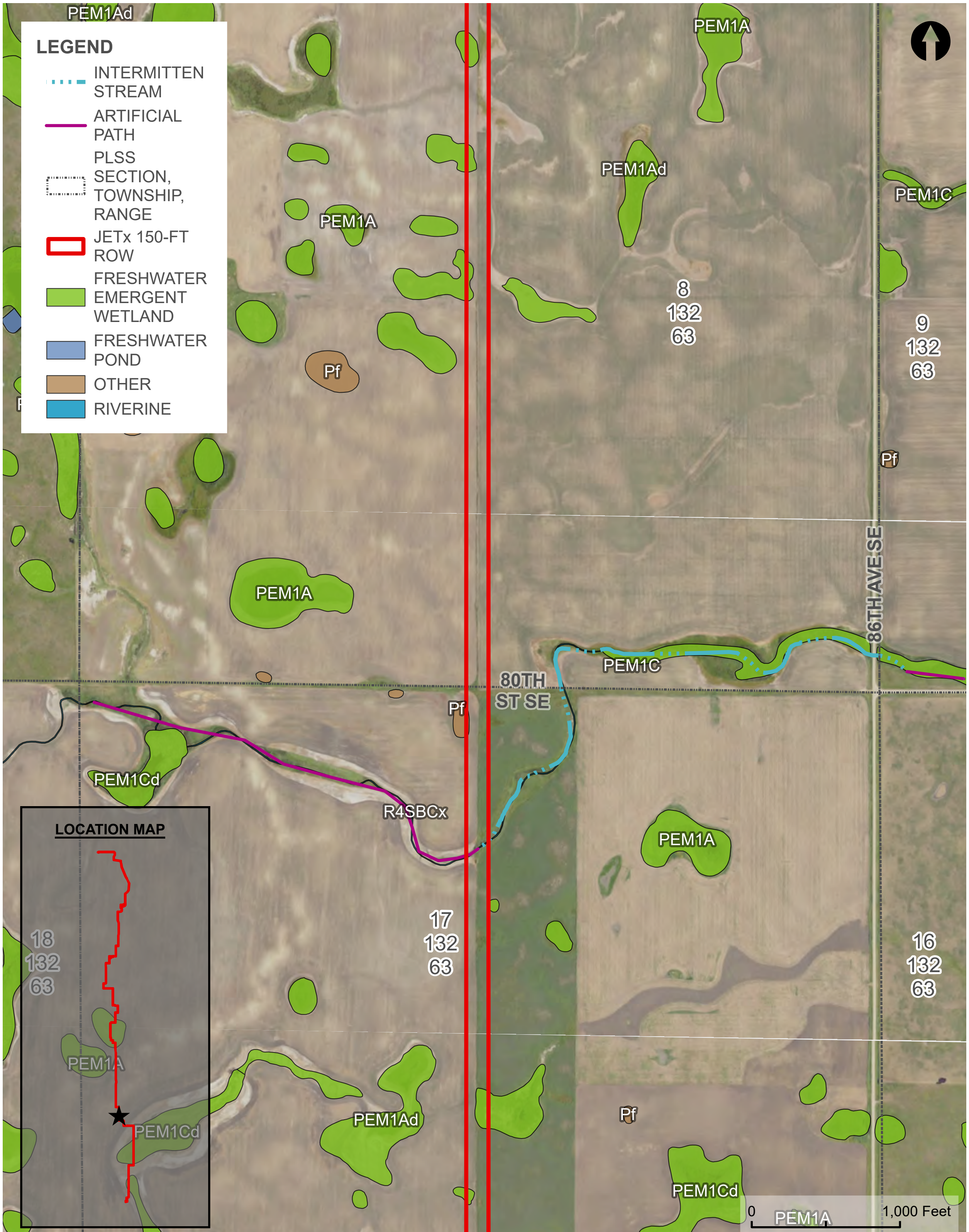
NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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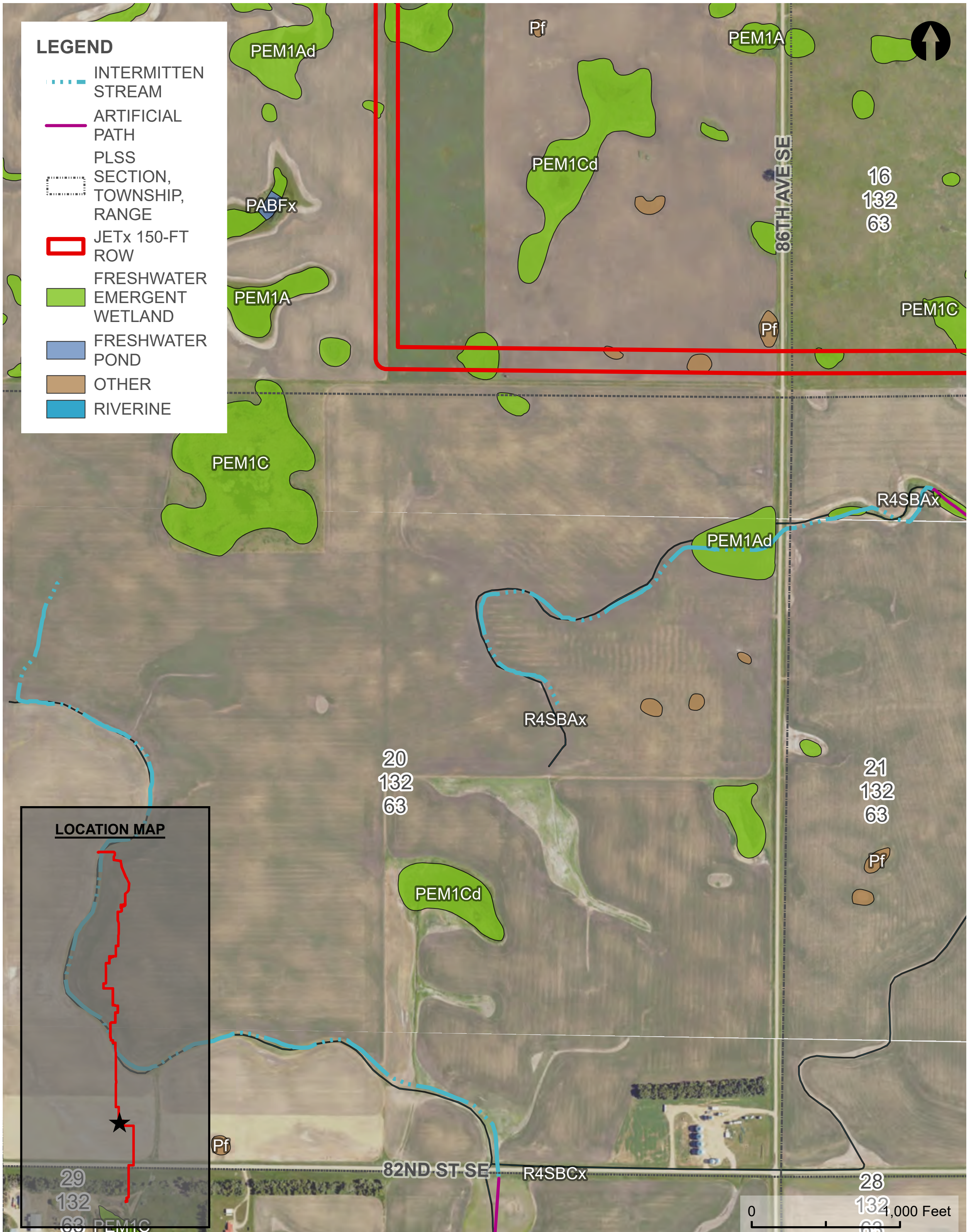
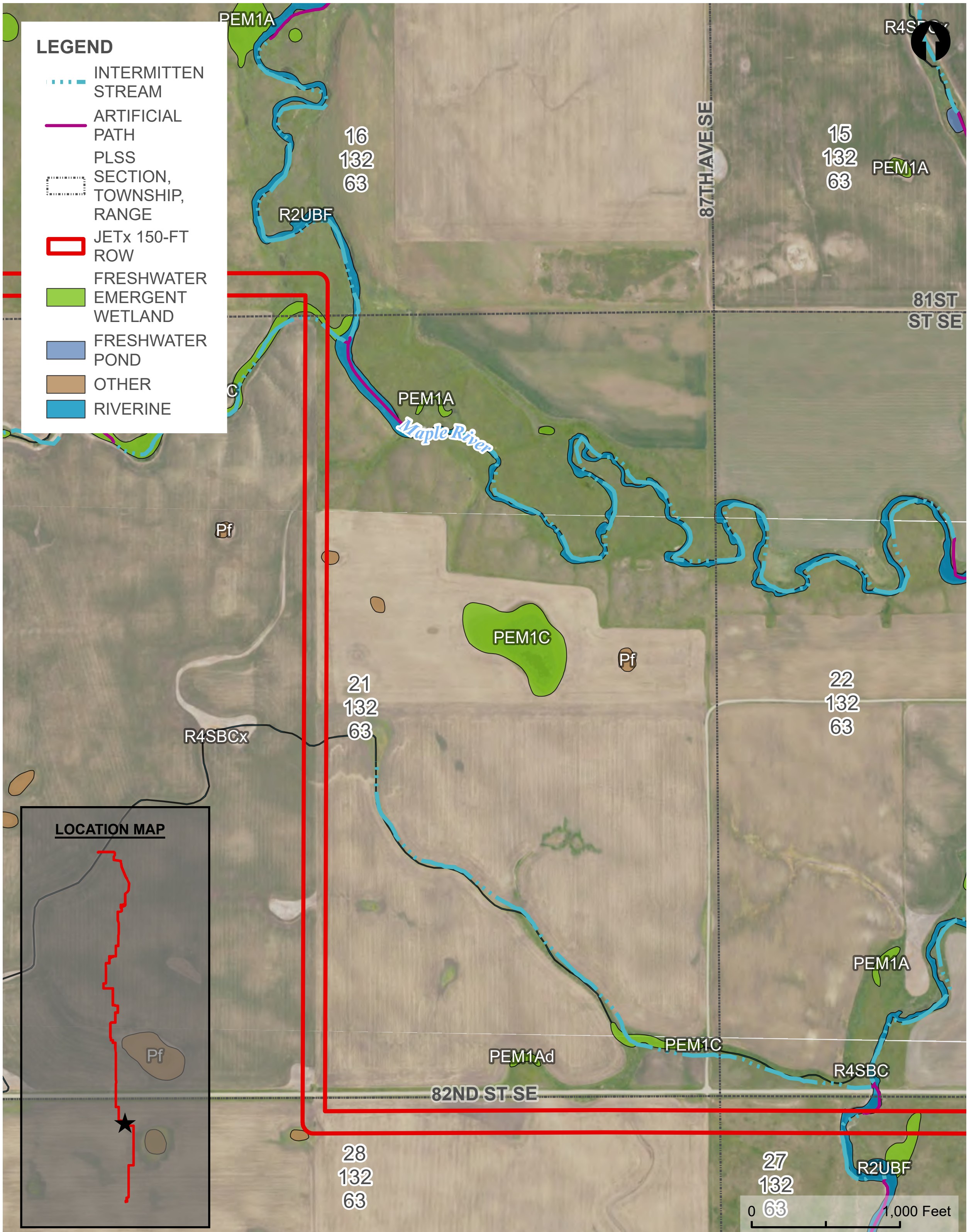
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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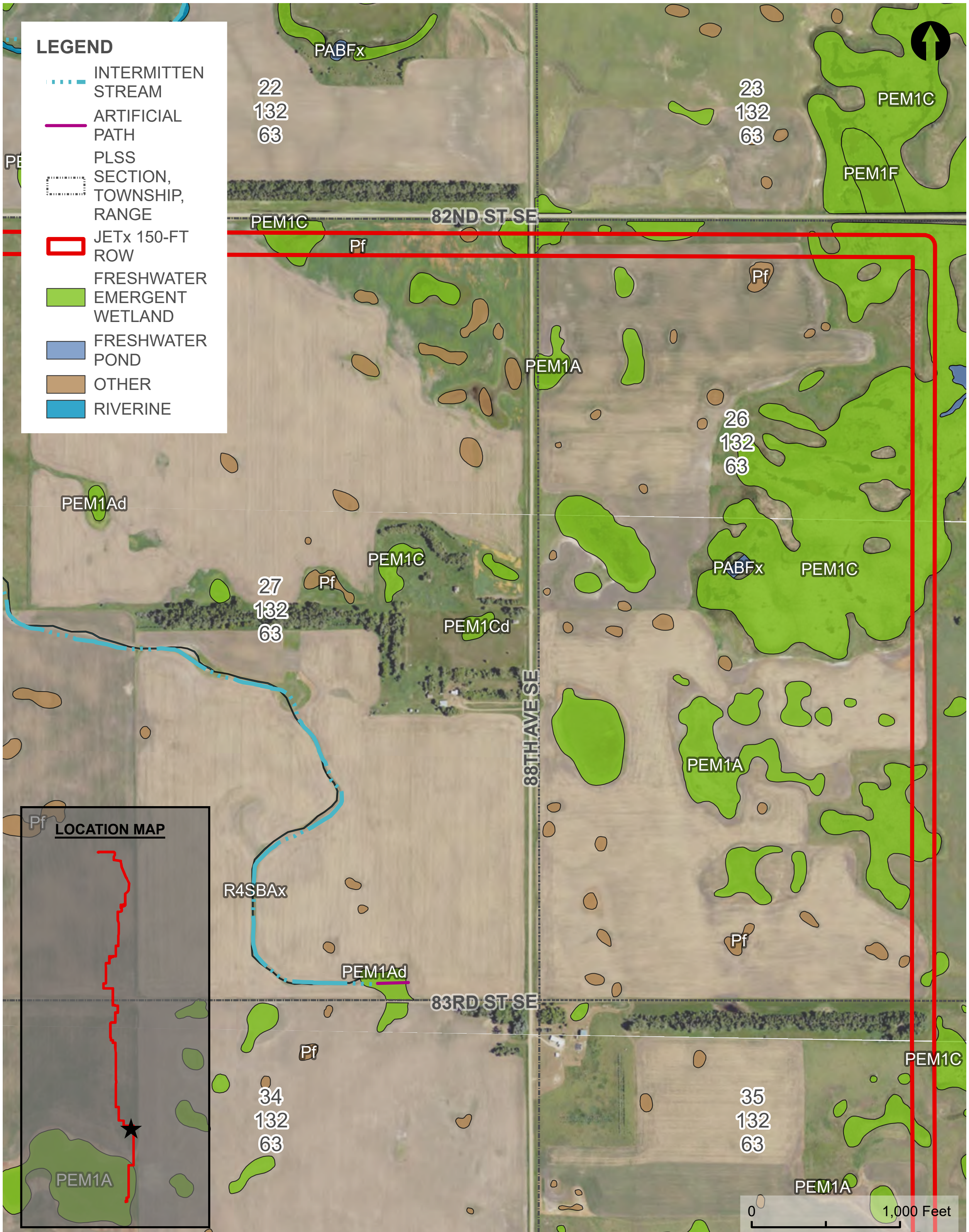
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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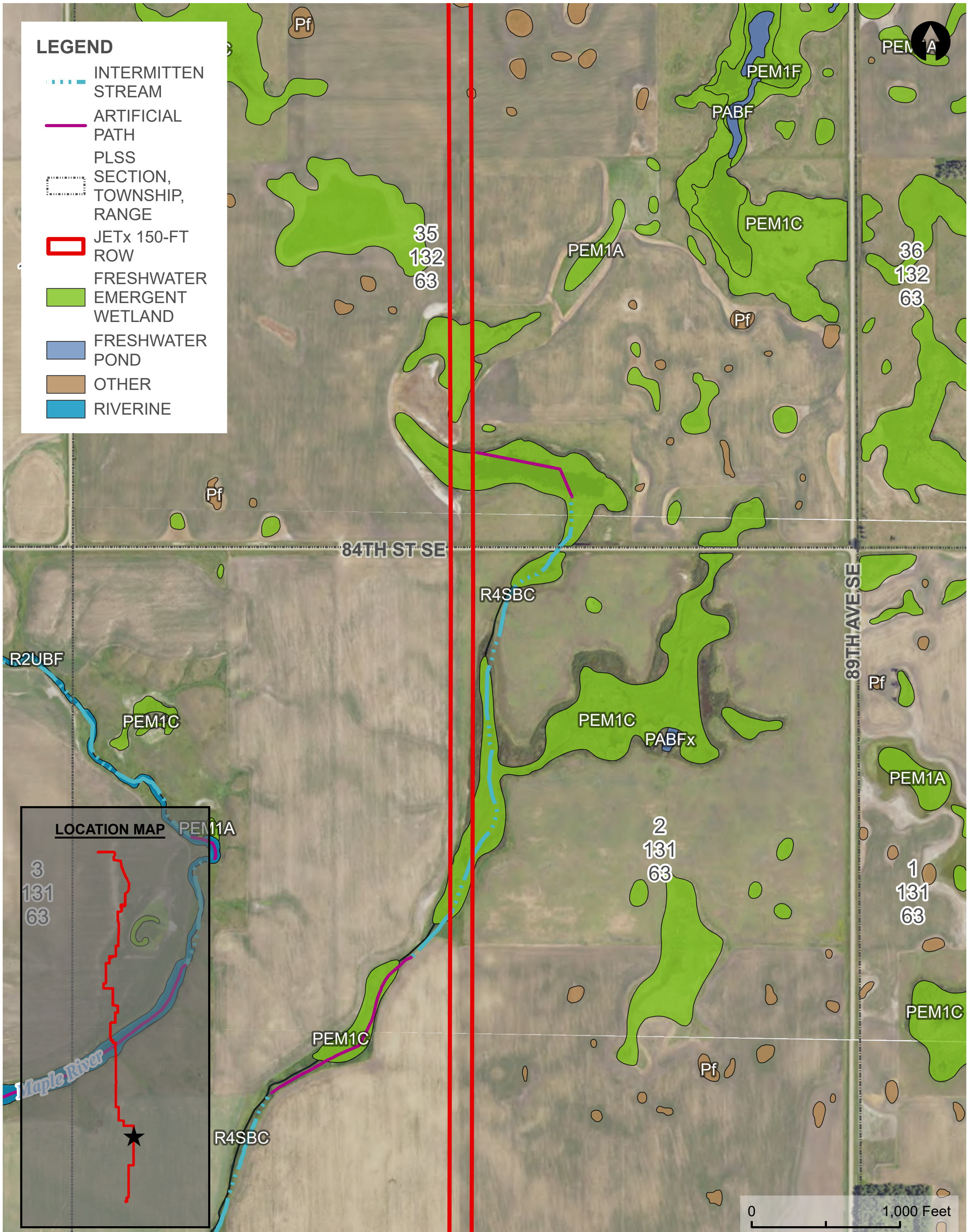
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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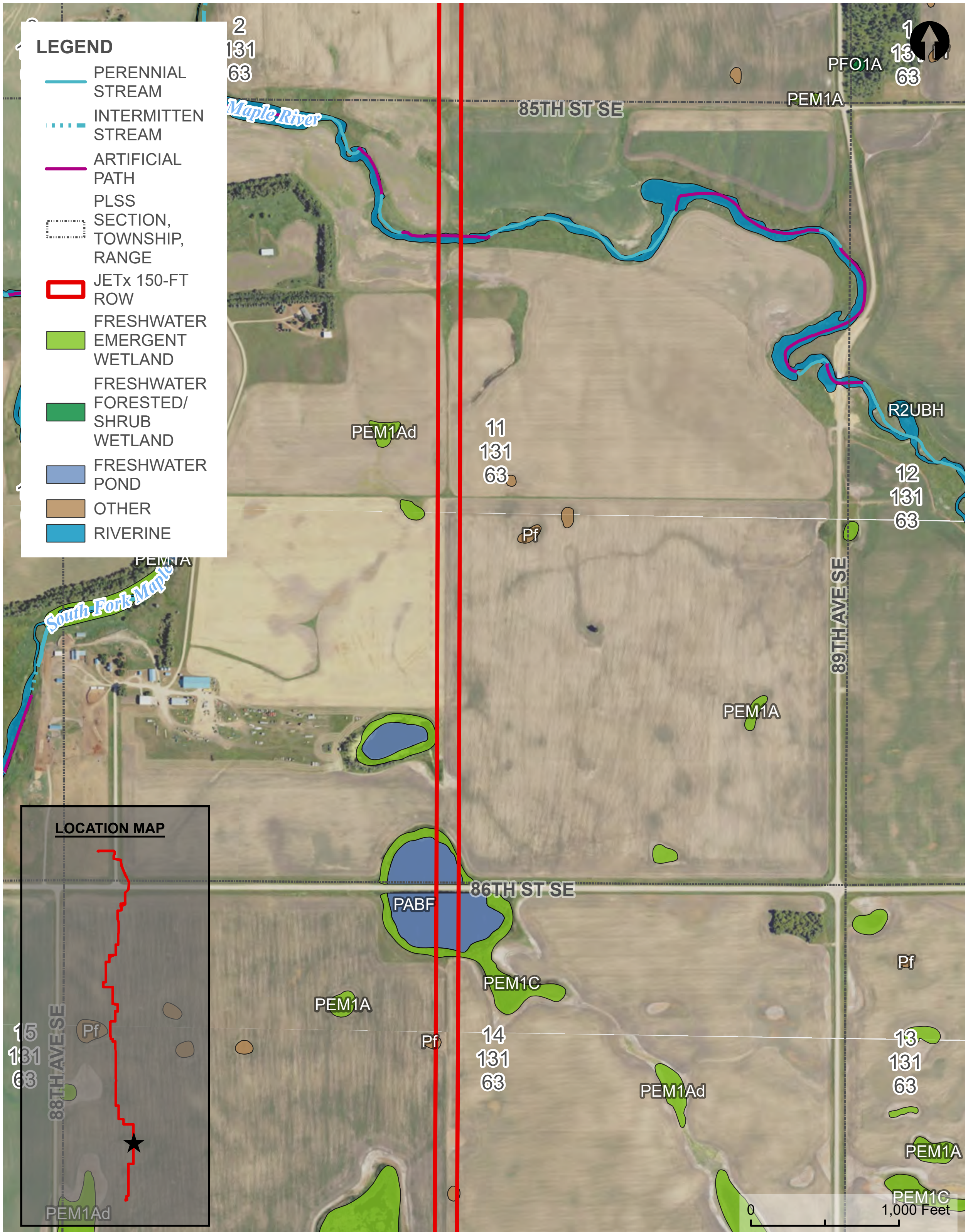
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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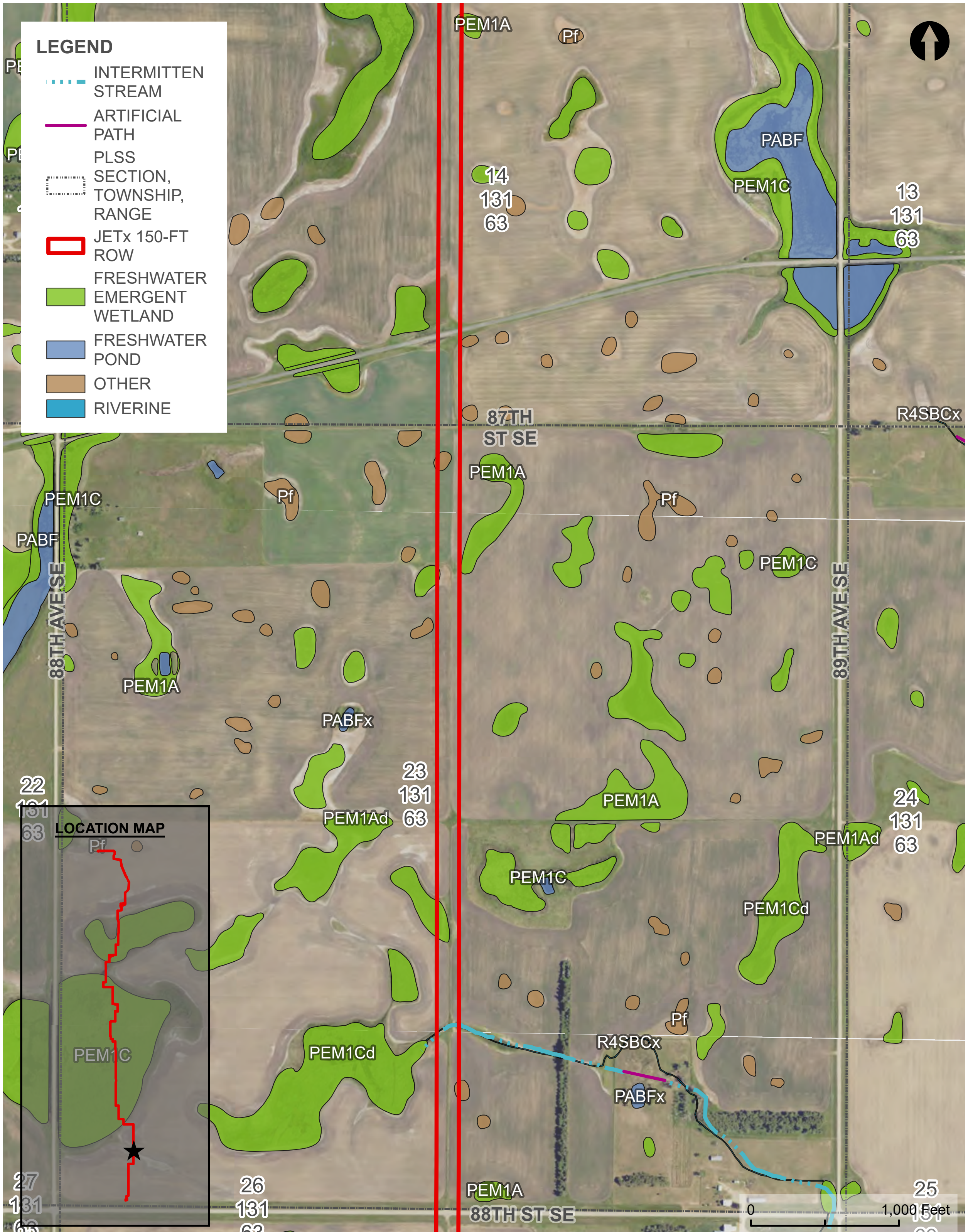
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

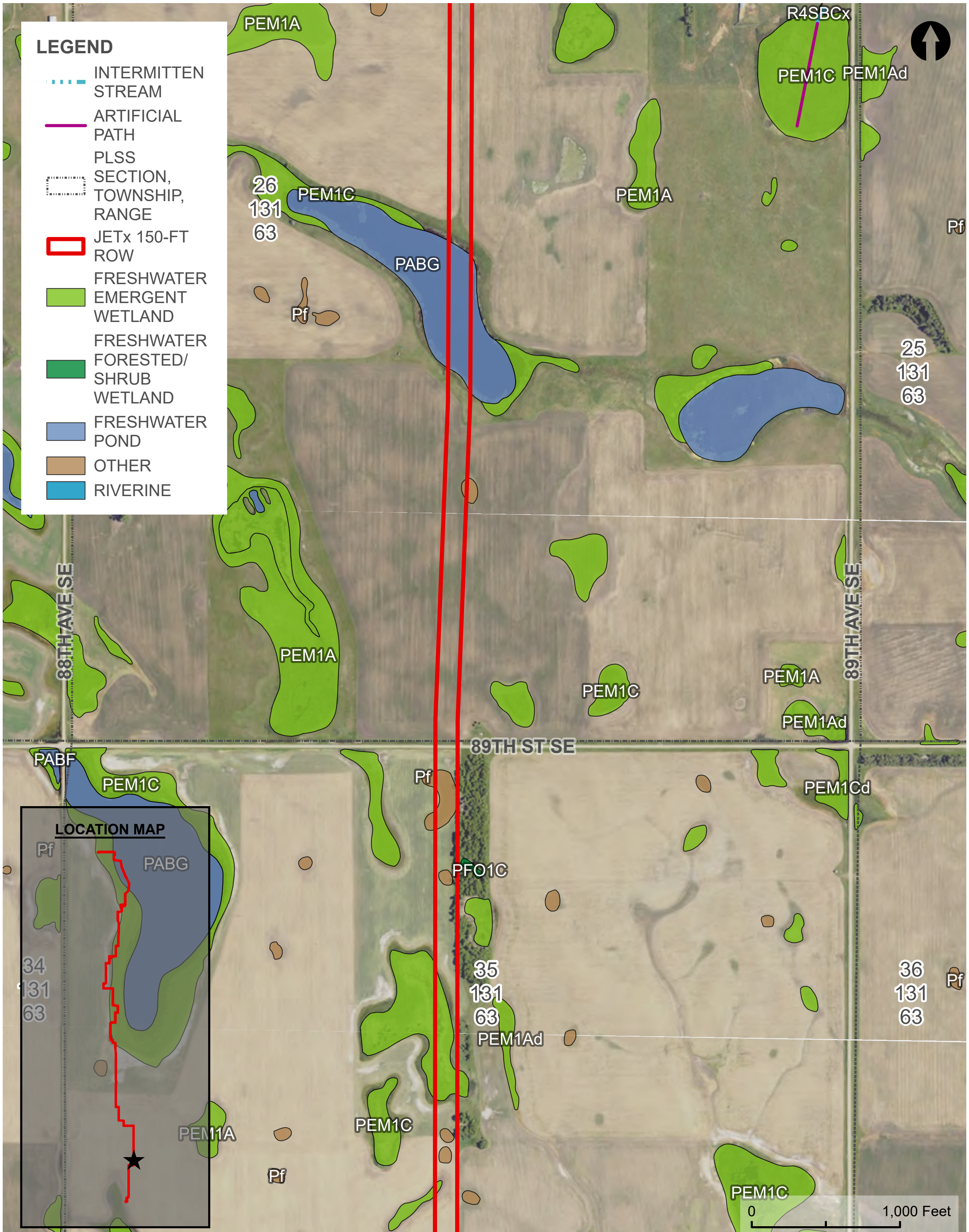


JETx
Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

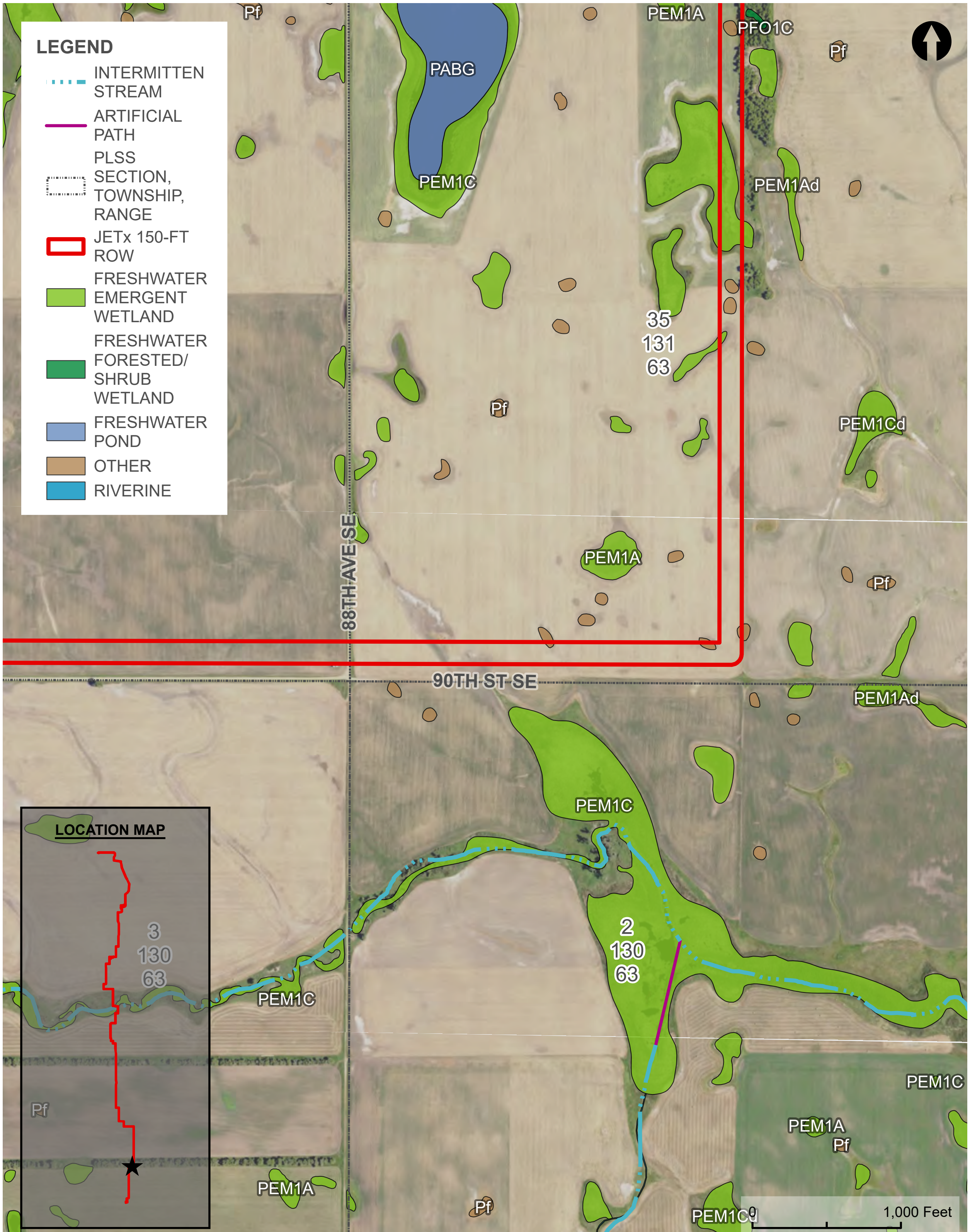
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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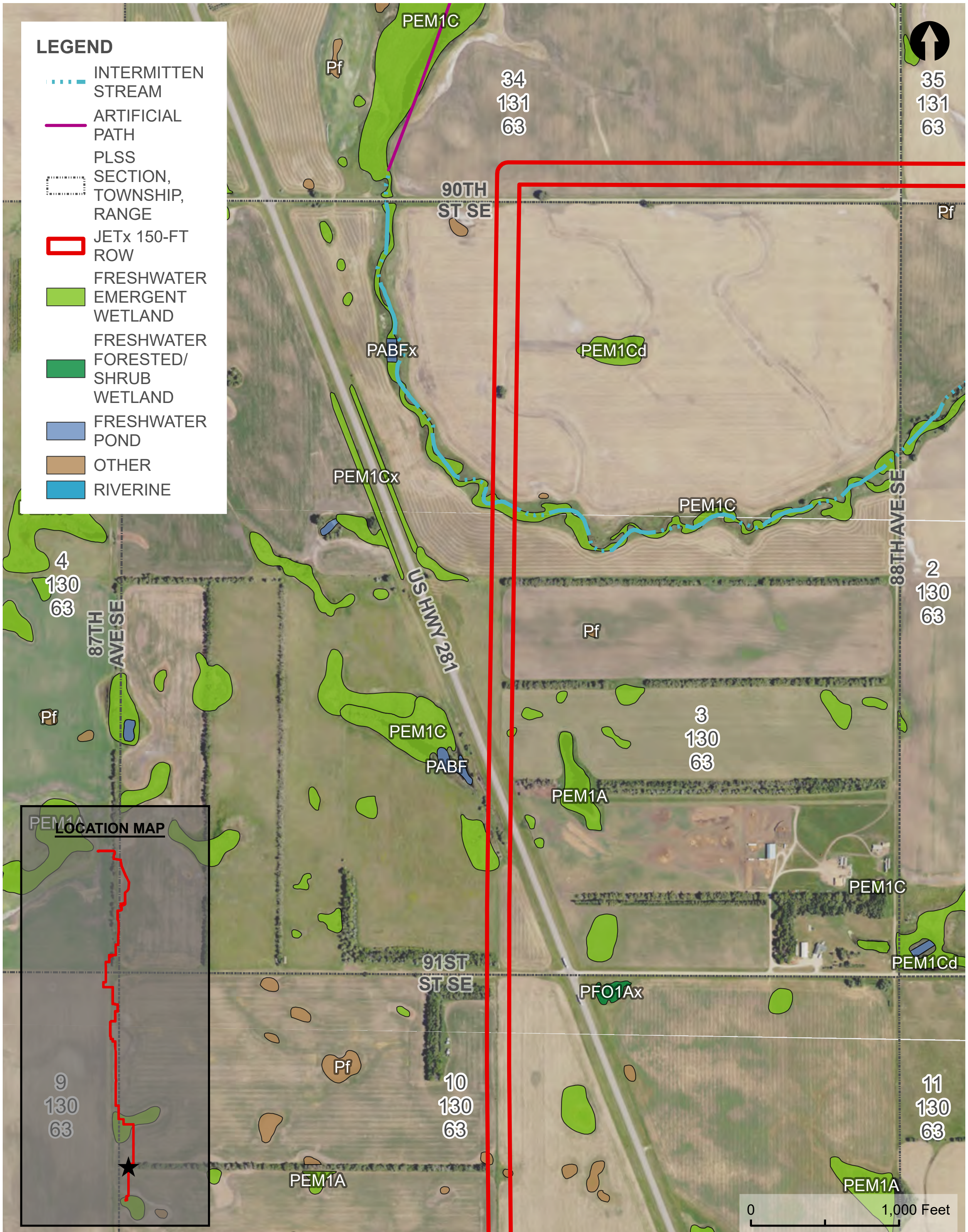
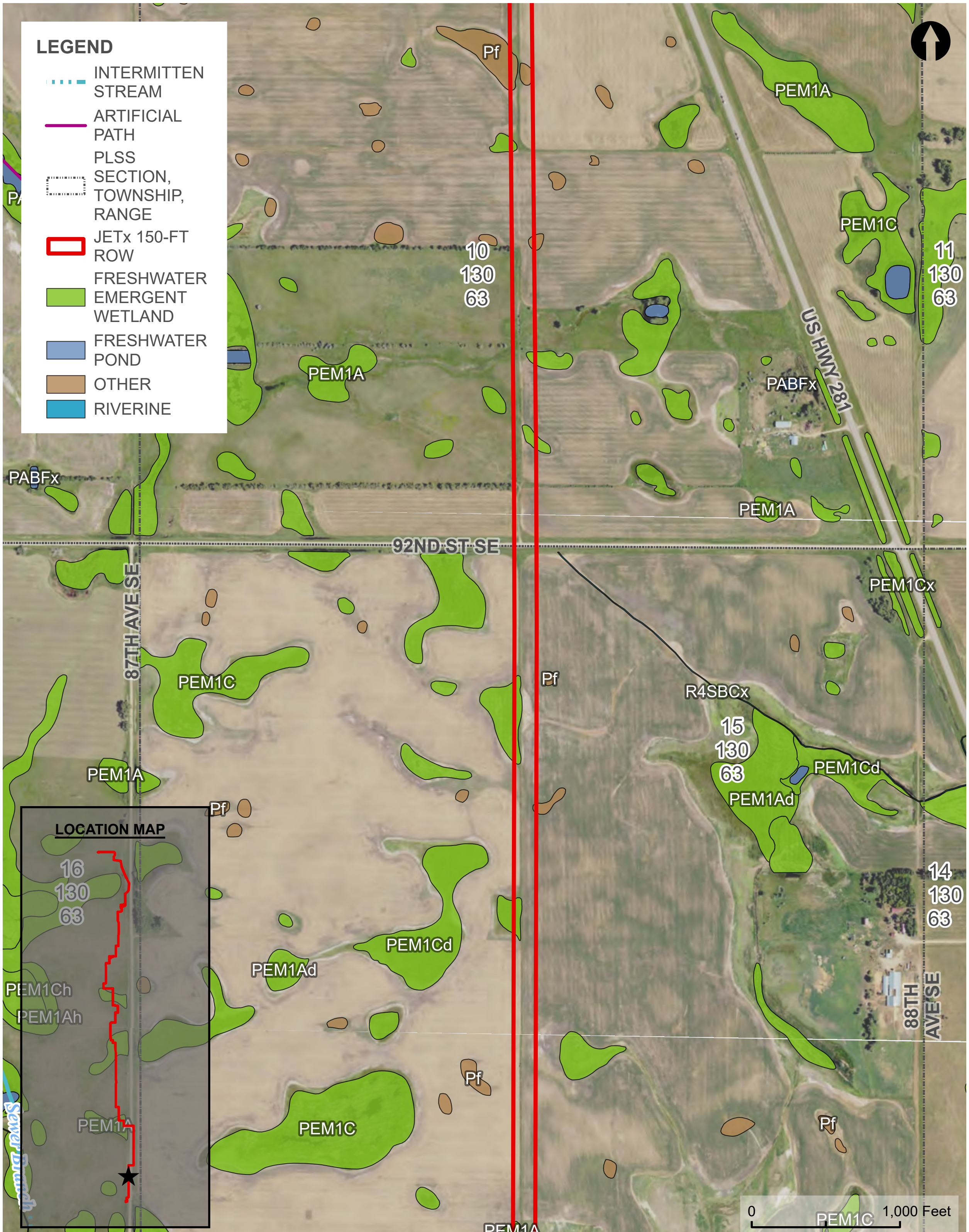
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

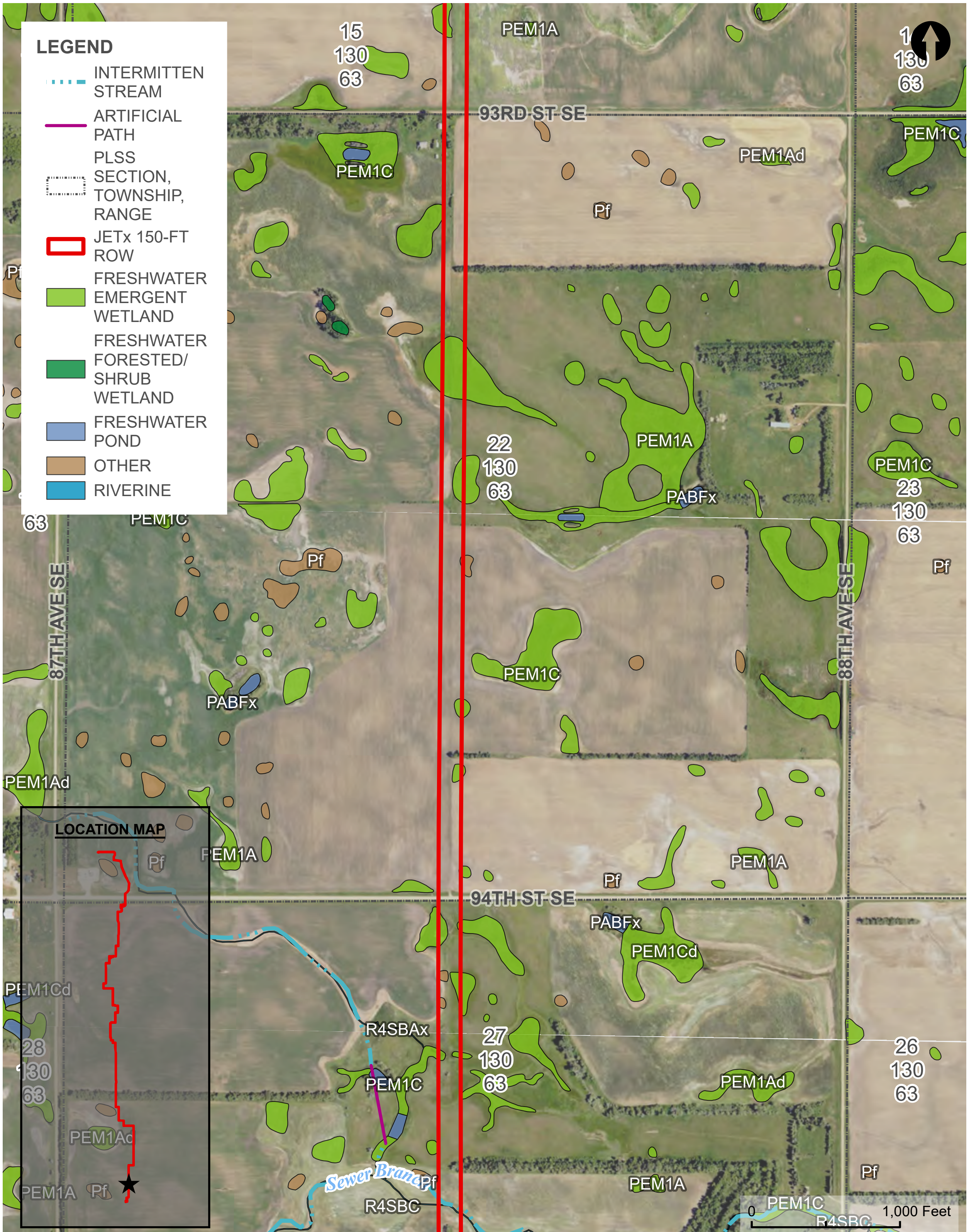
NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

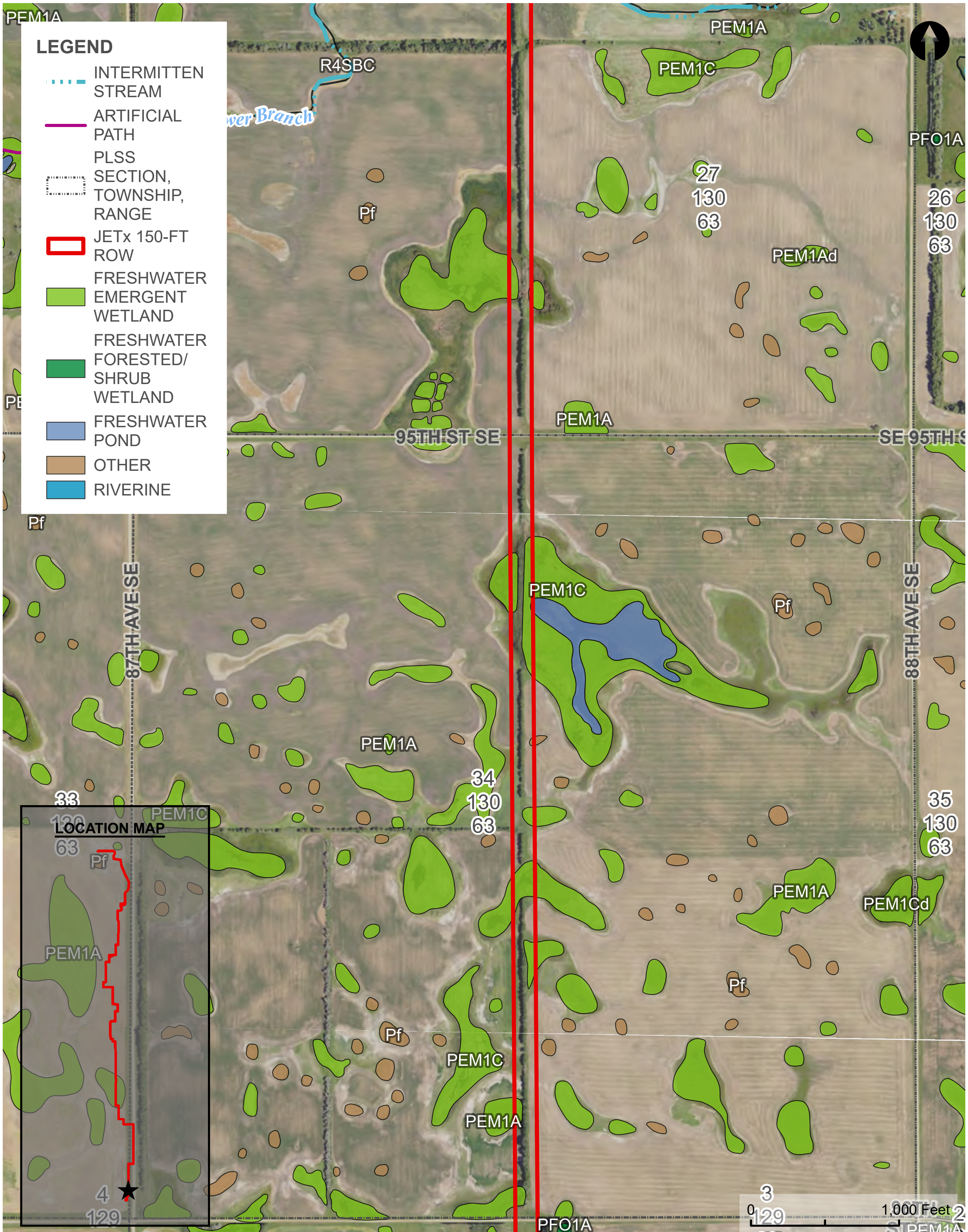
FIGURE 3



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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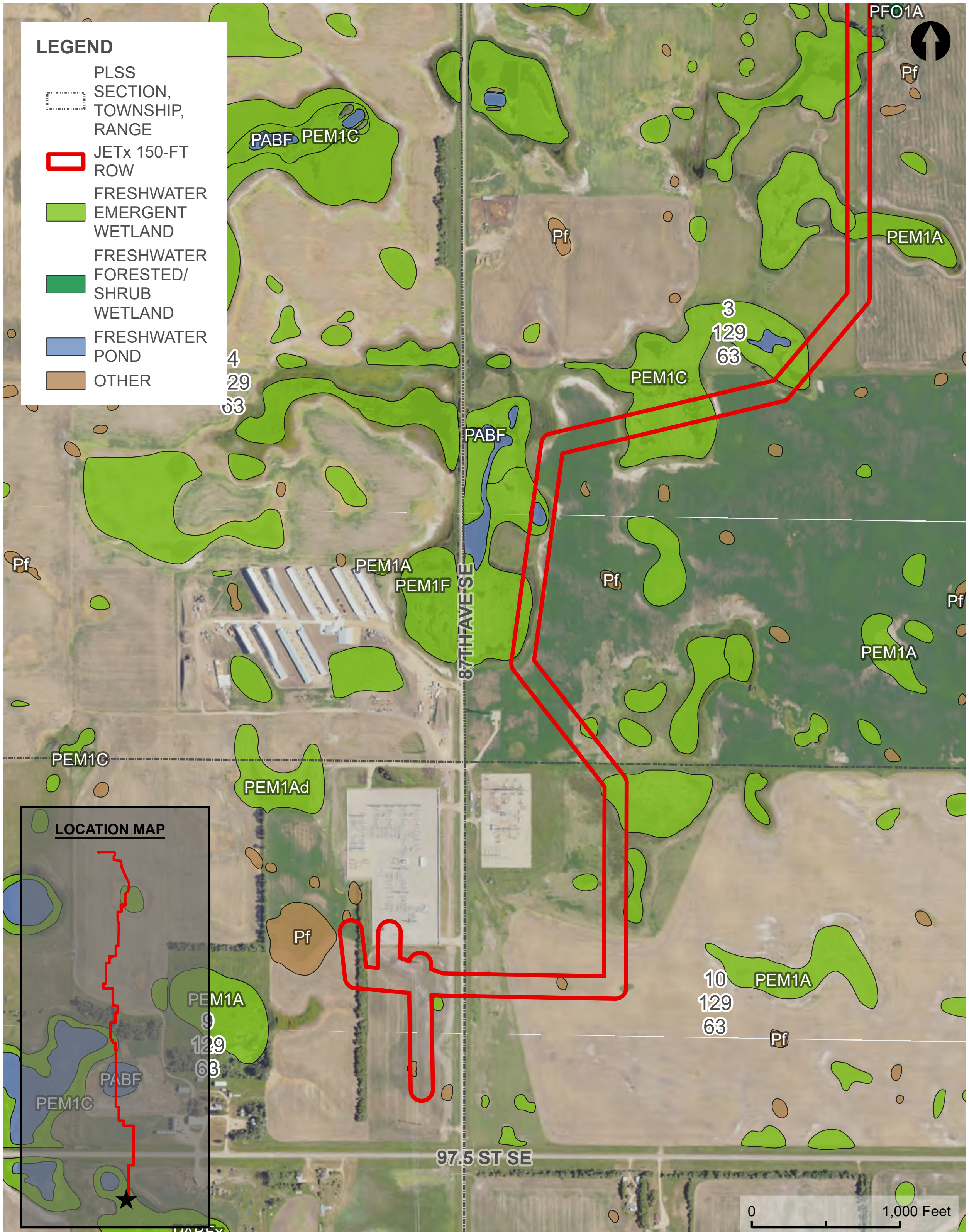
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATIONAL WETLAND INVENTORY AND NATIONAL HYDROGRAPHY DATASET MAP

FIGURE 3

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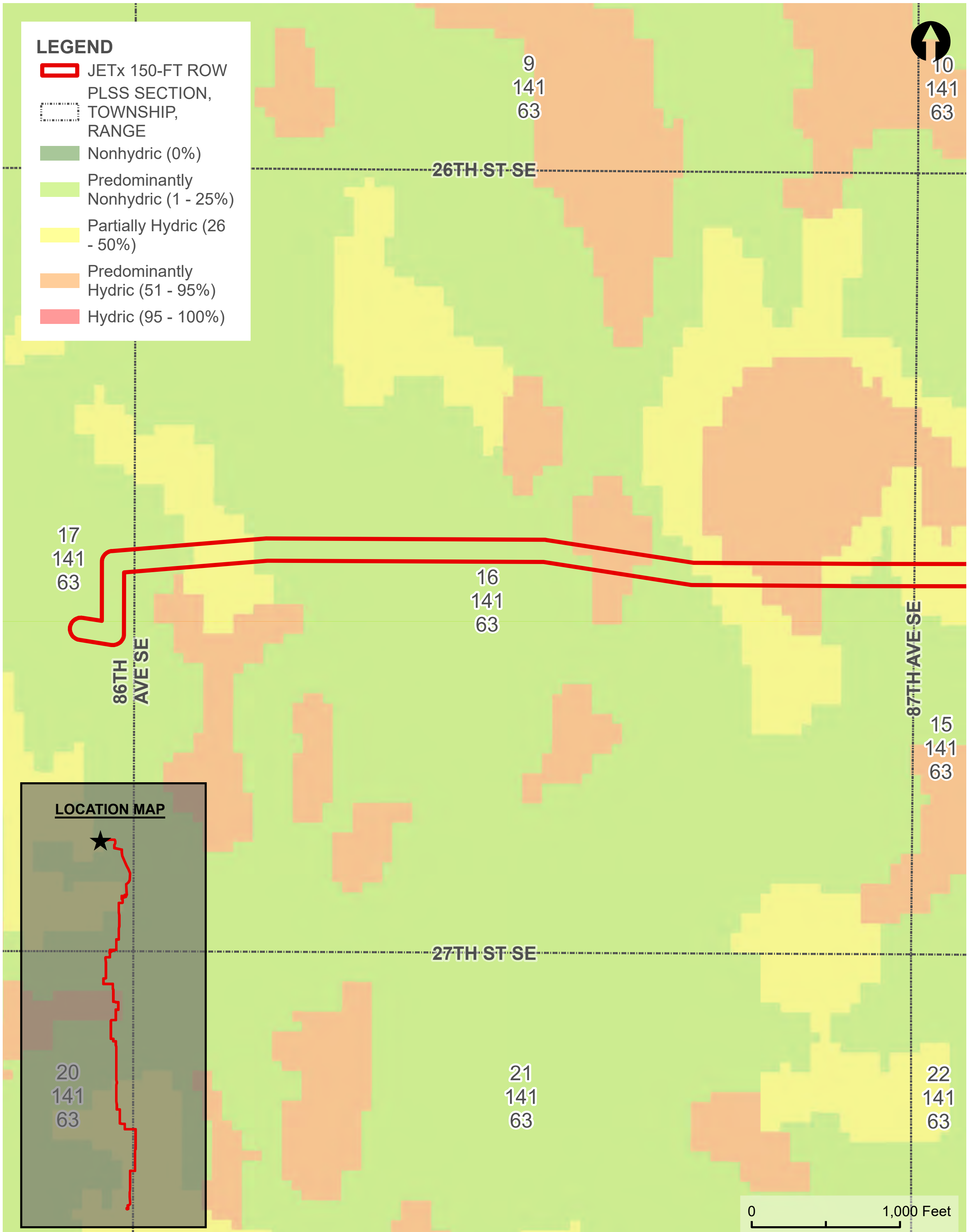
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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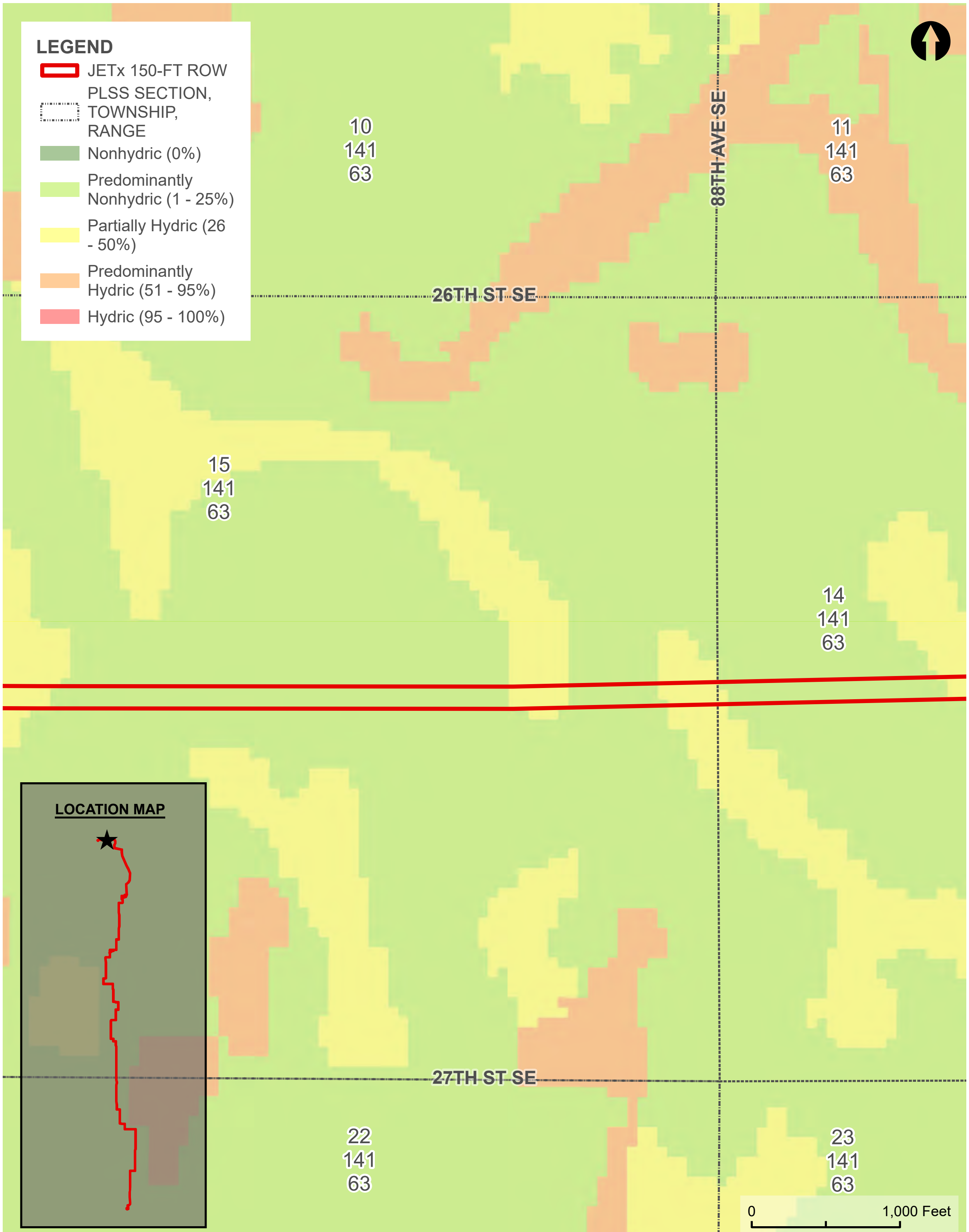
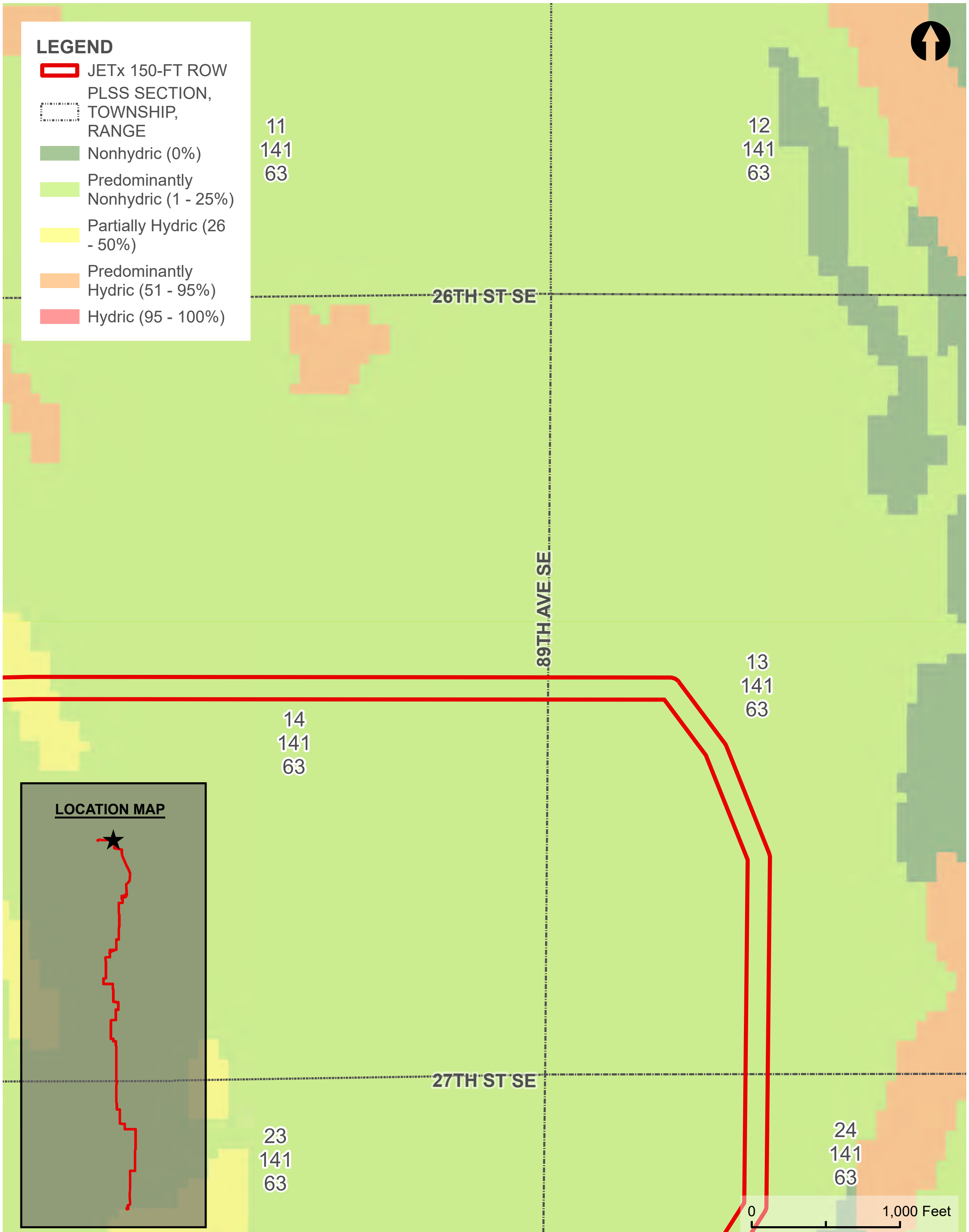


JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

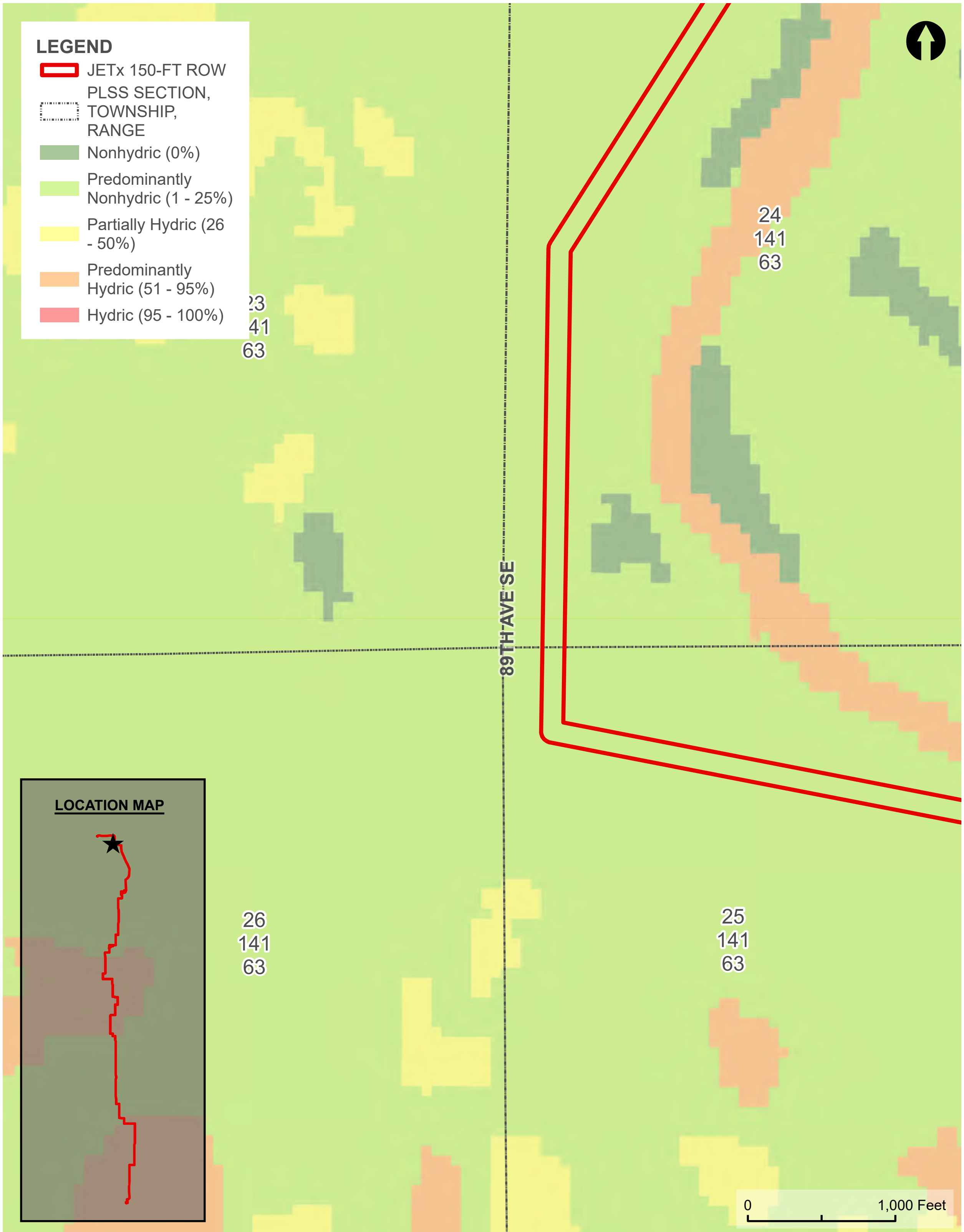


JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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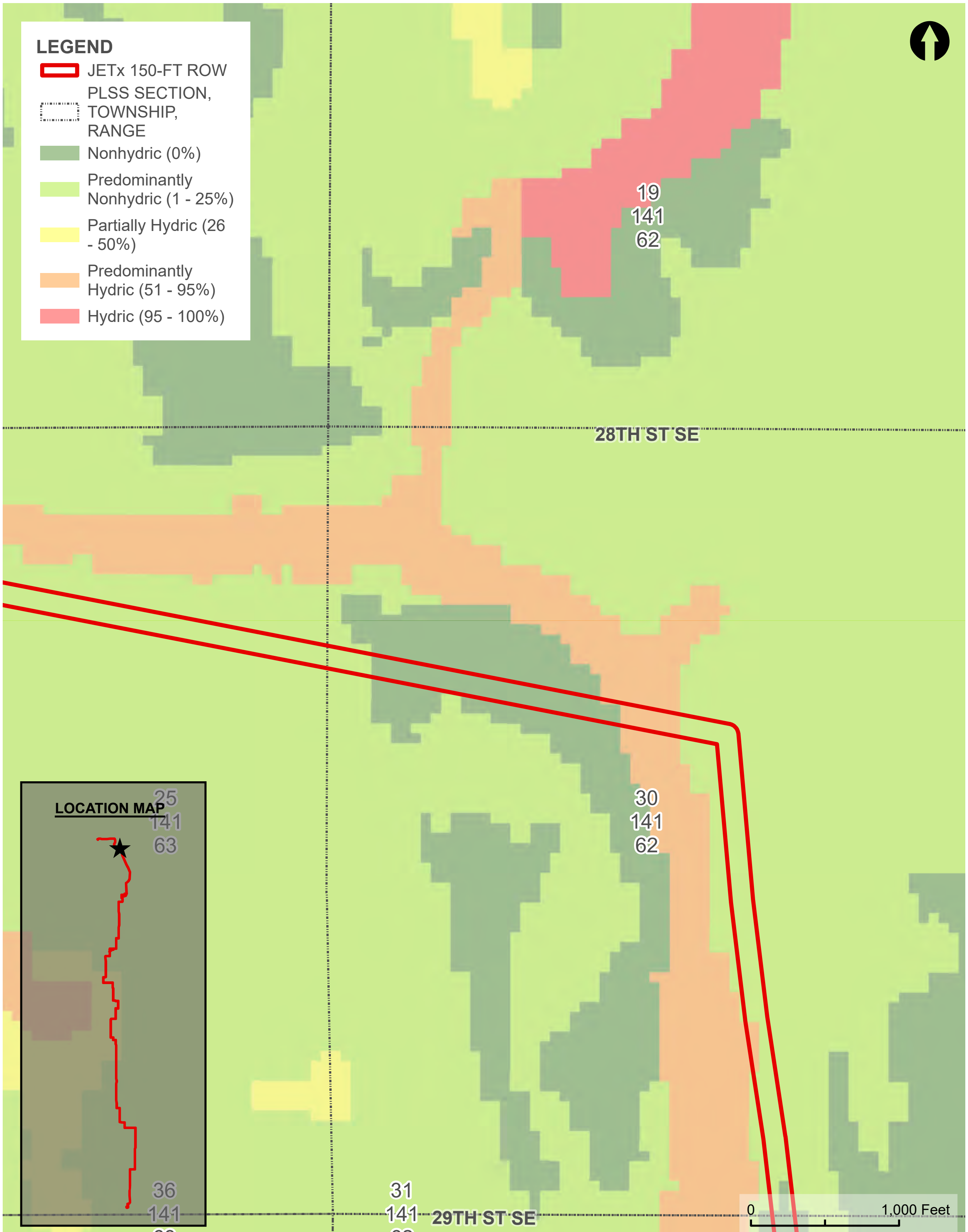
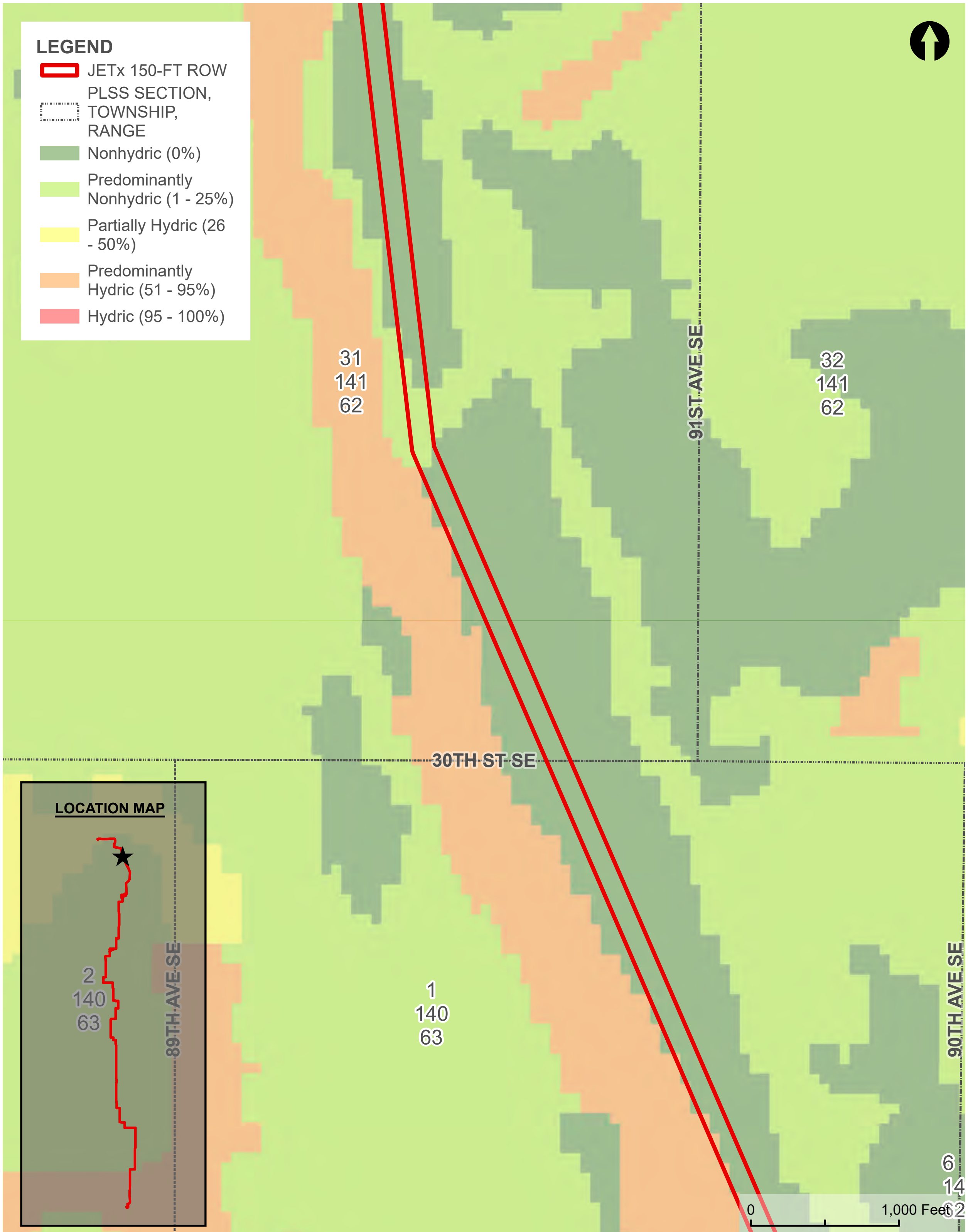


JETx
Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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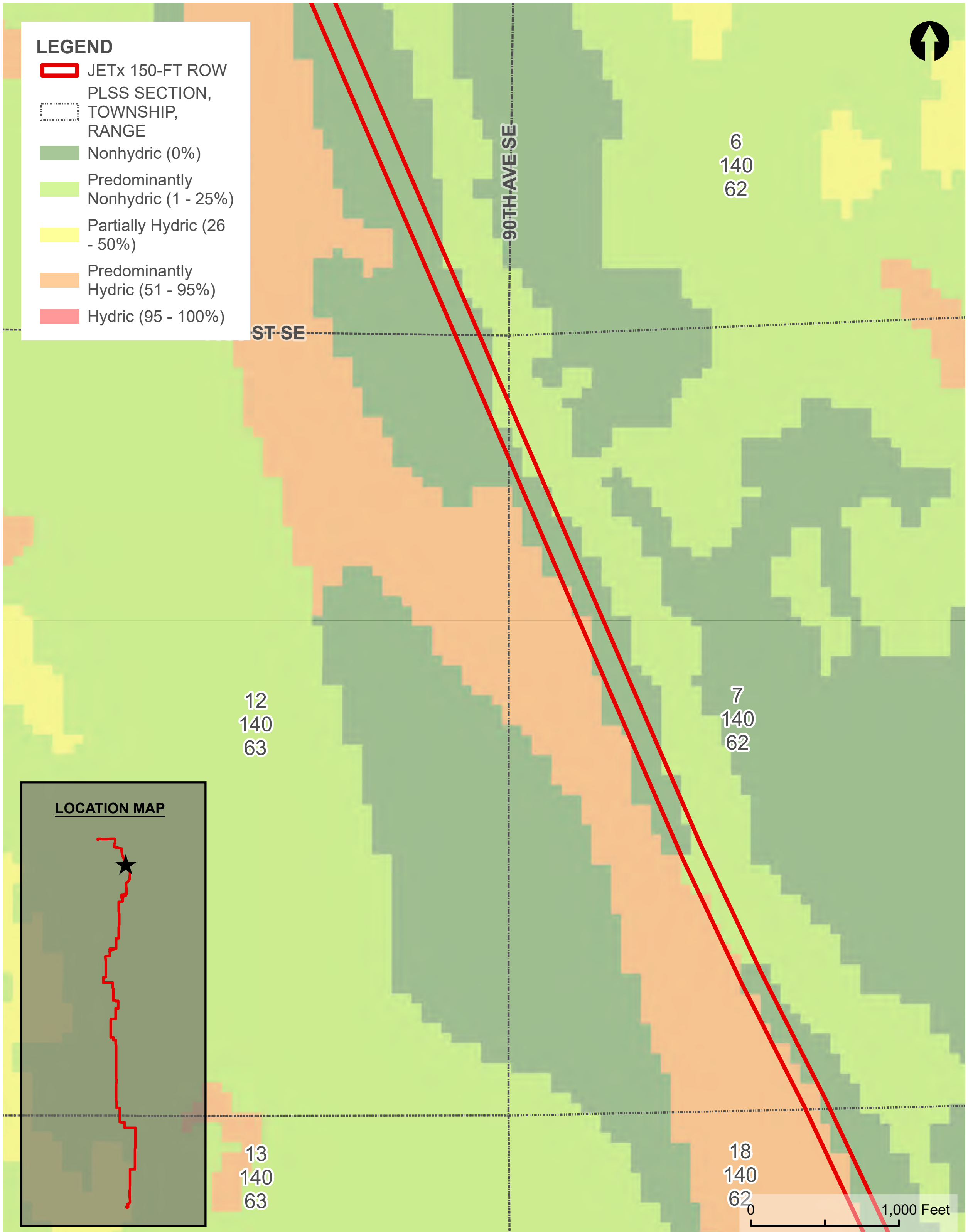
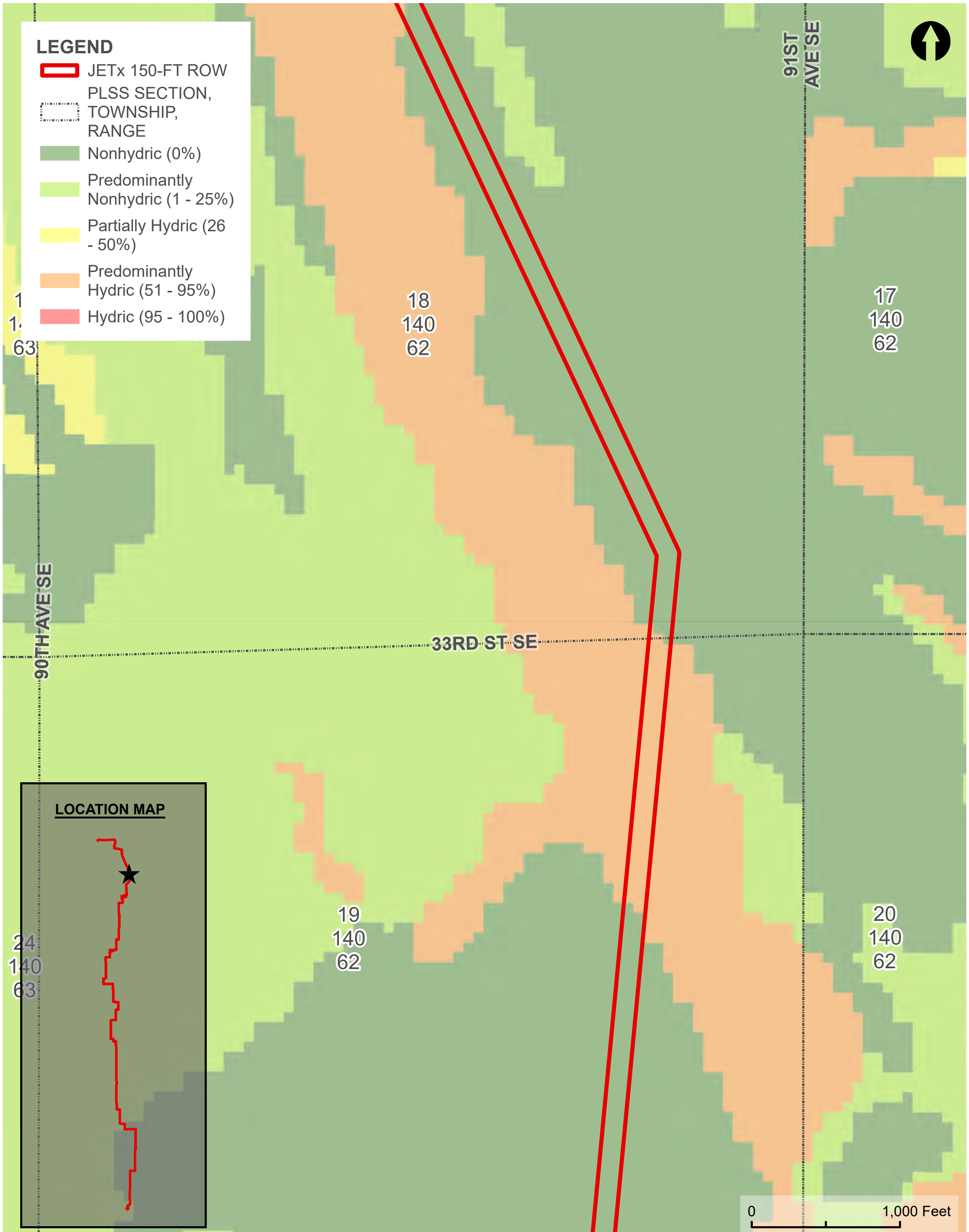
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

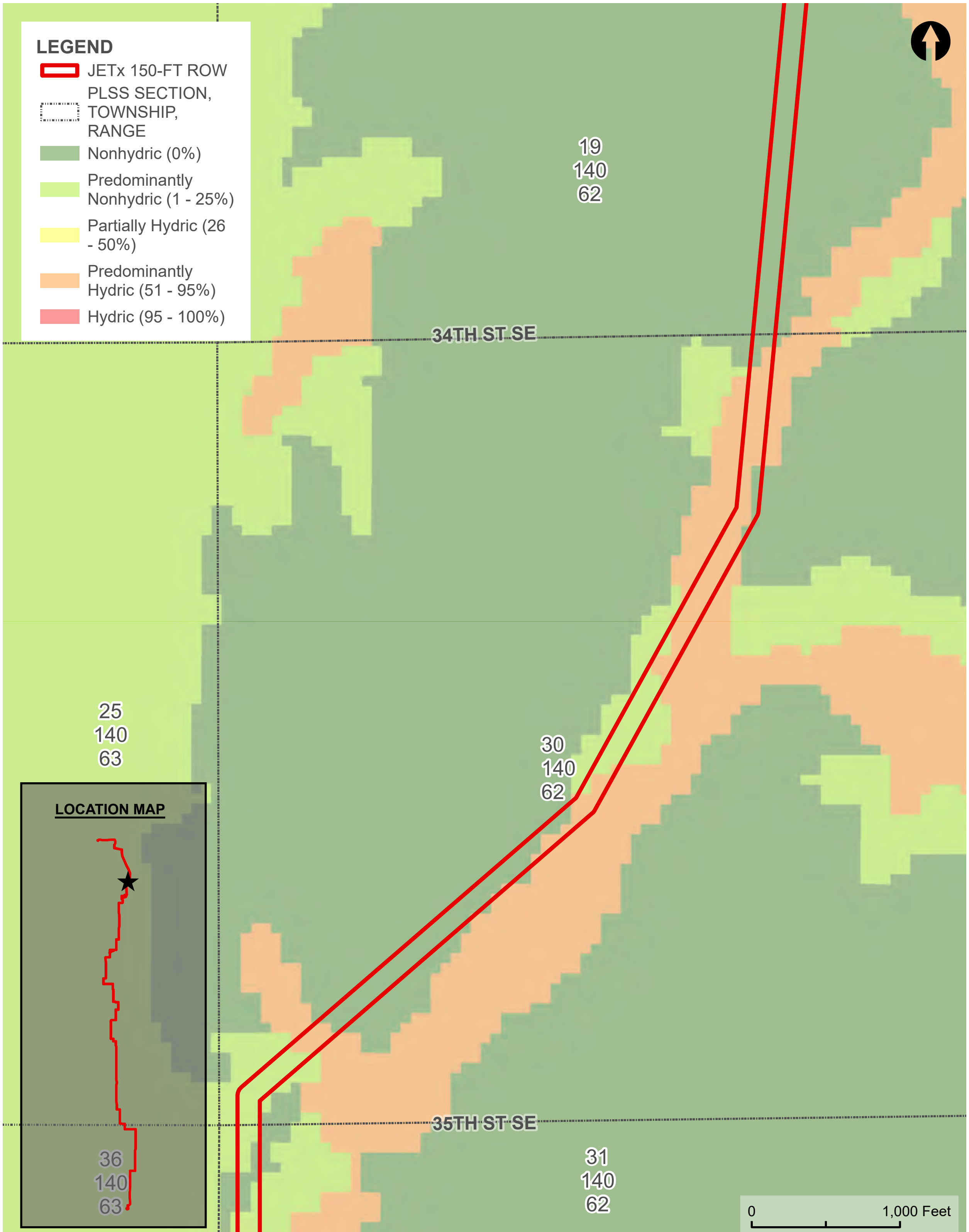
FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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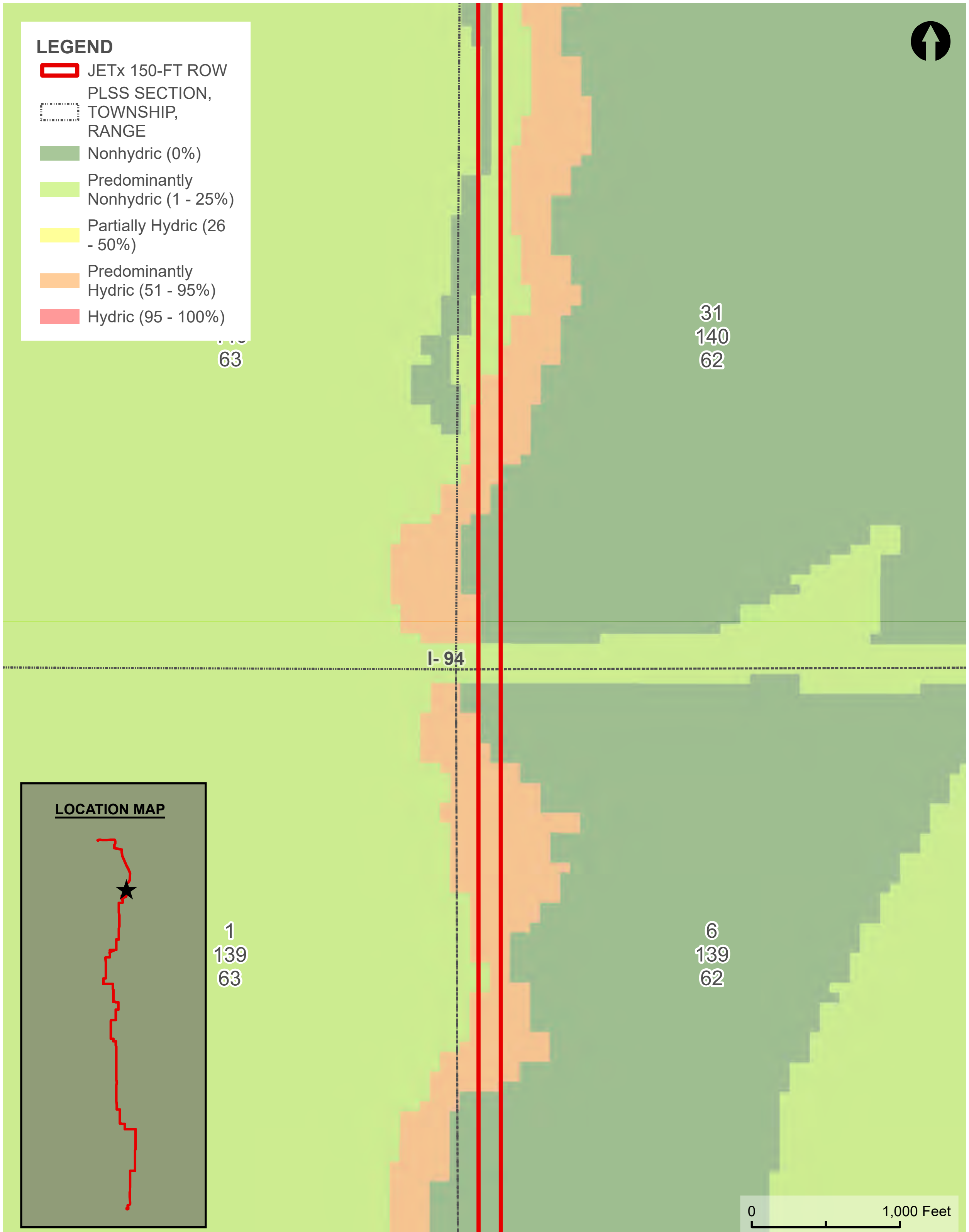
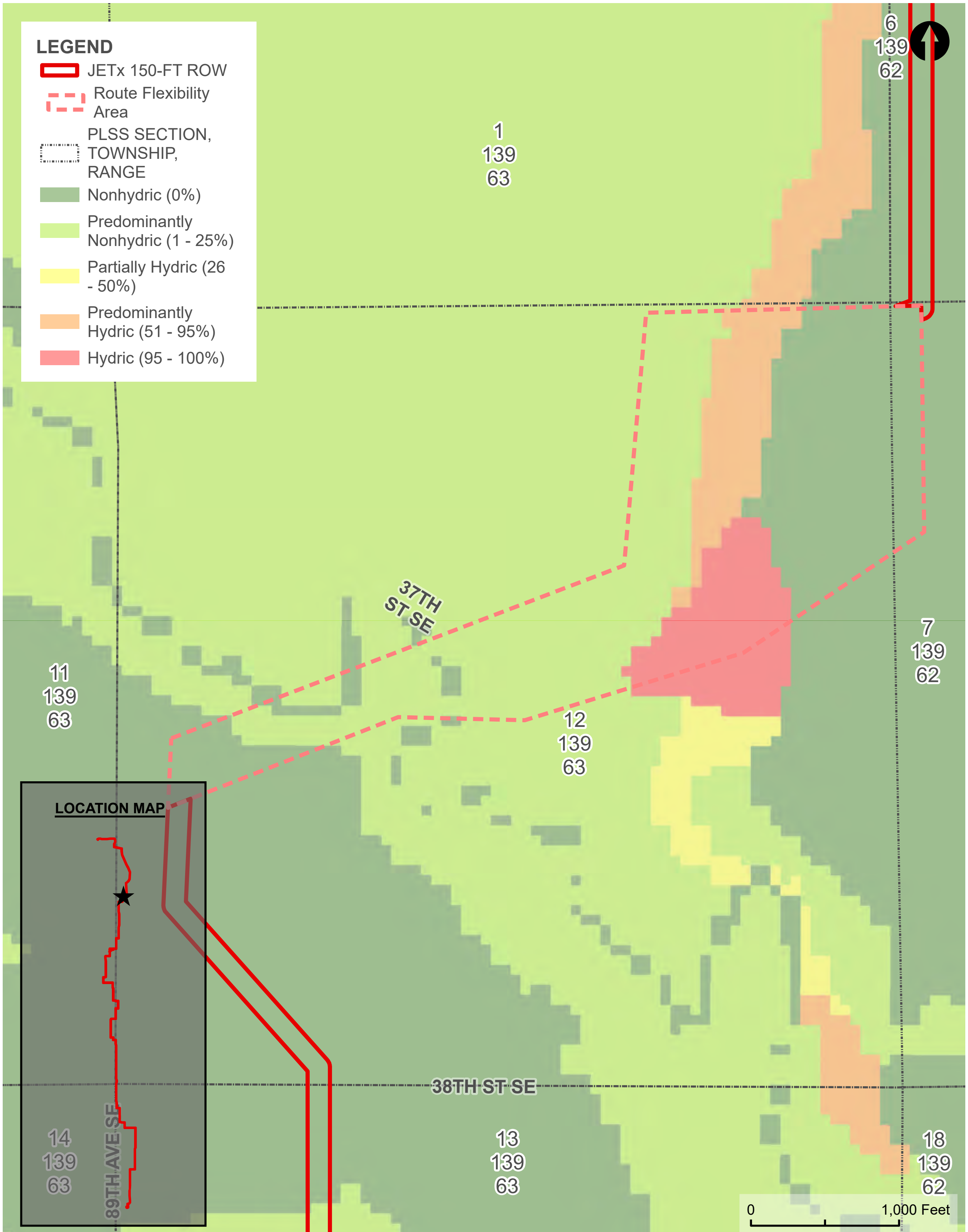


NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

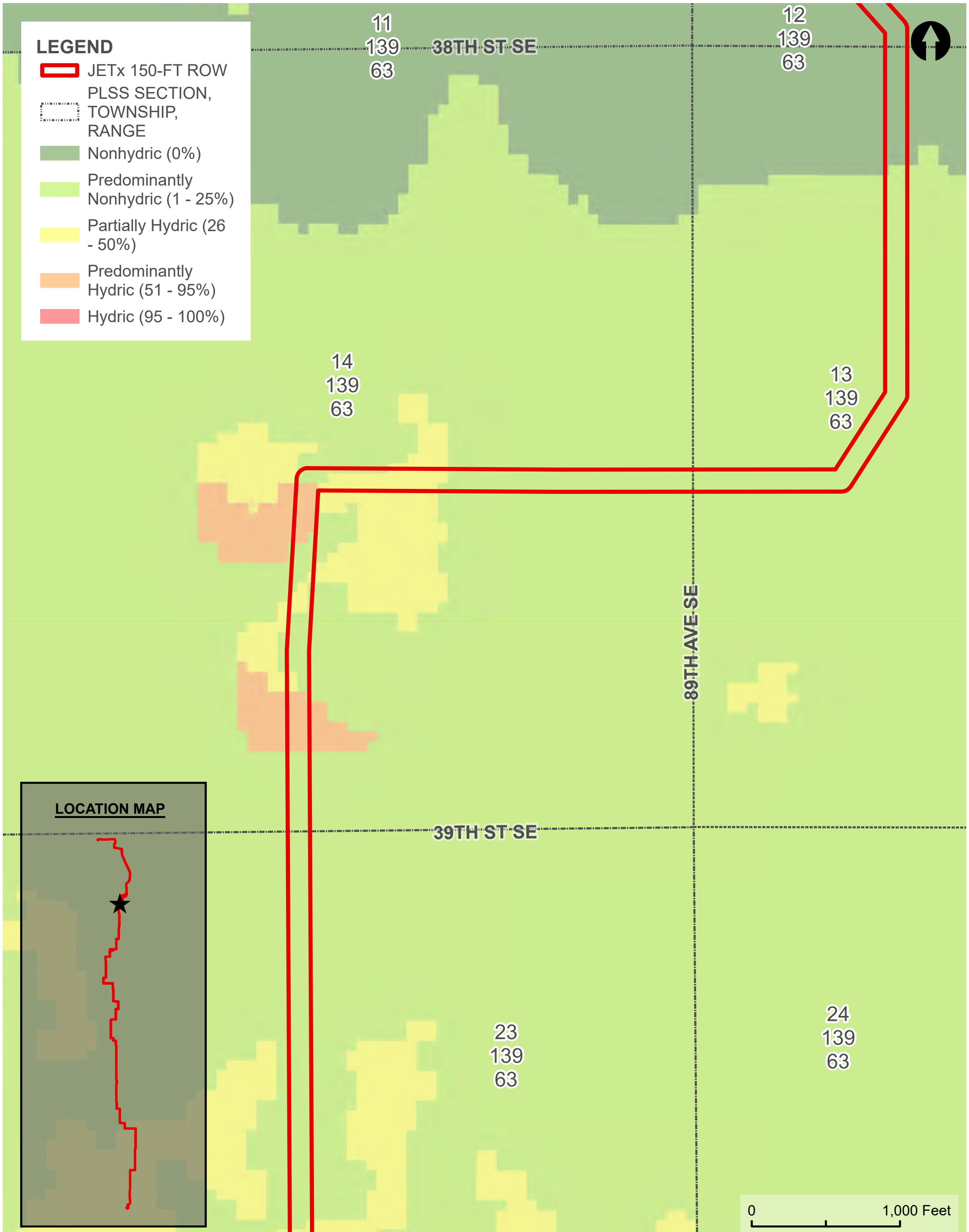
FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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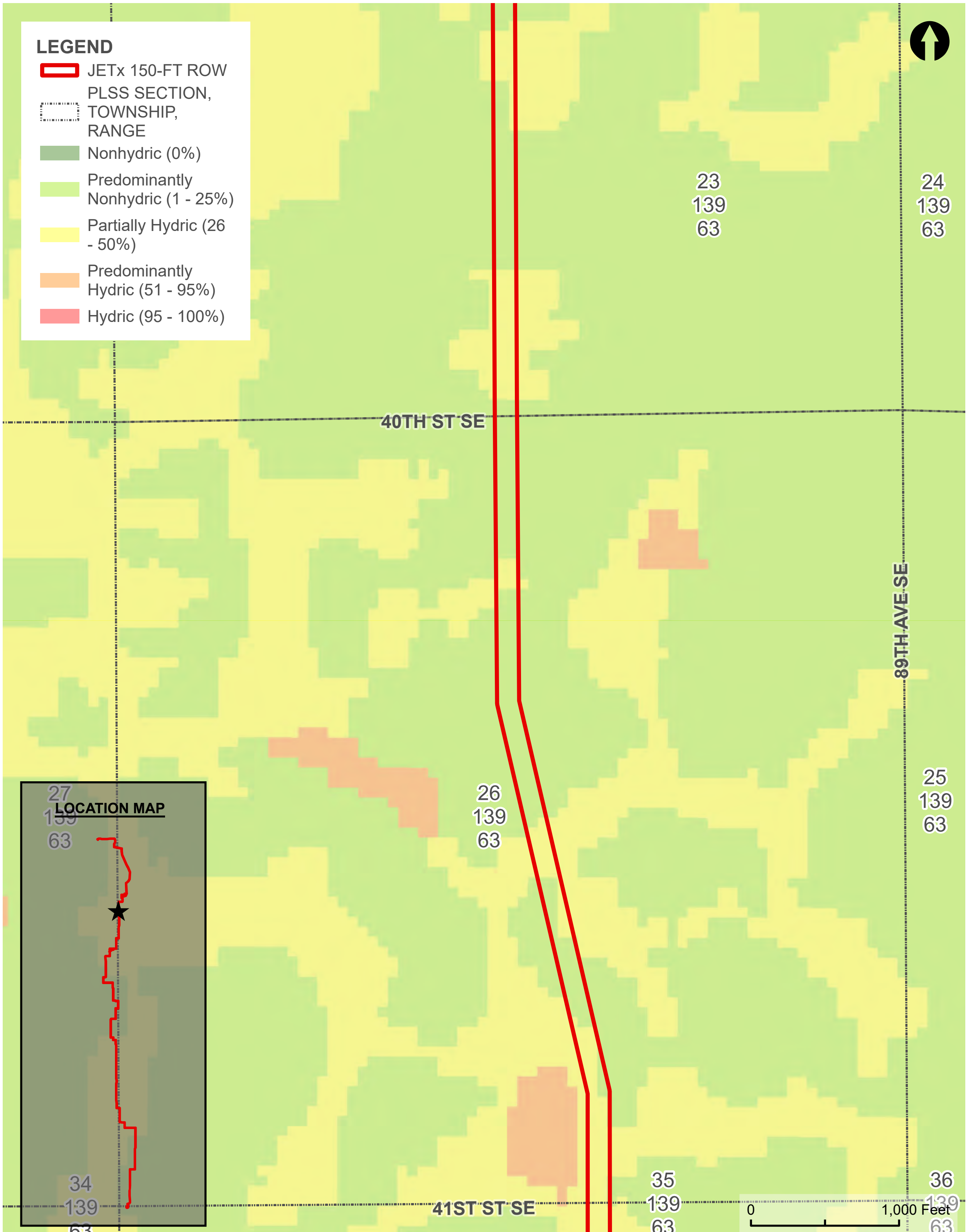
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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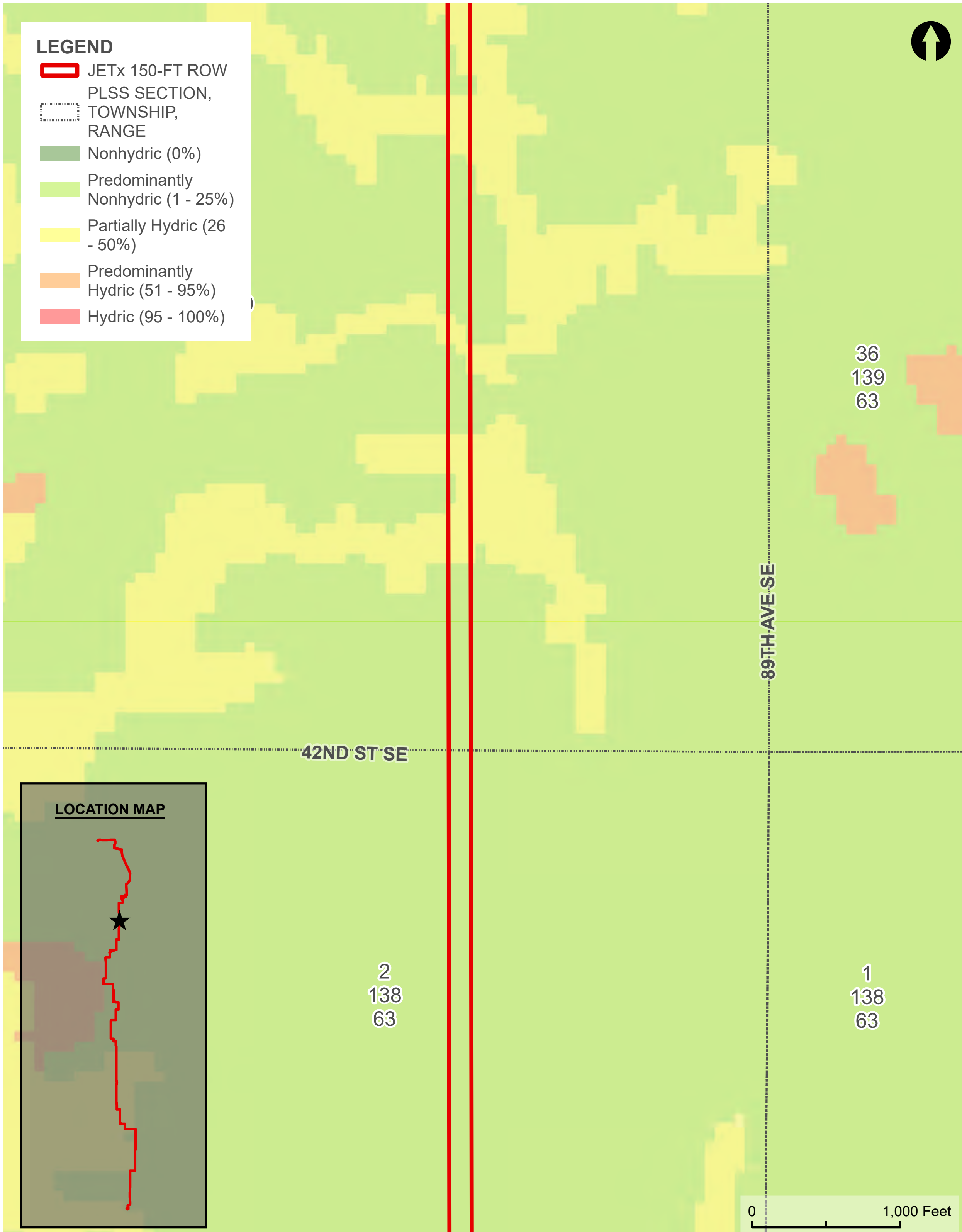
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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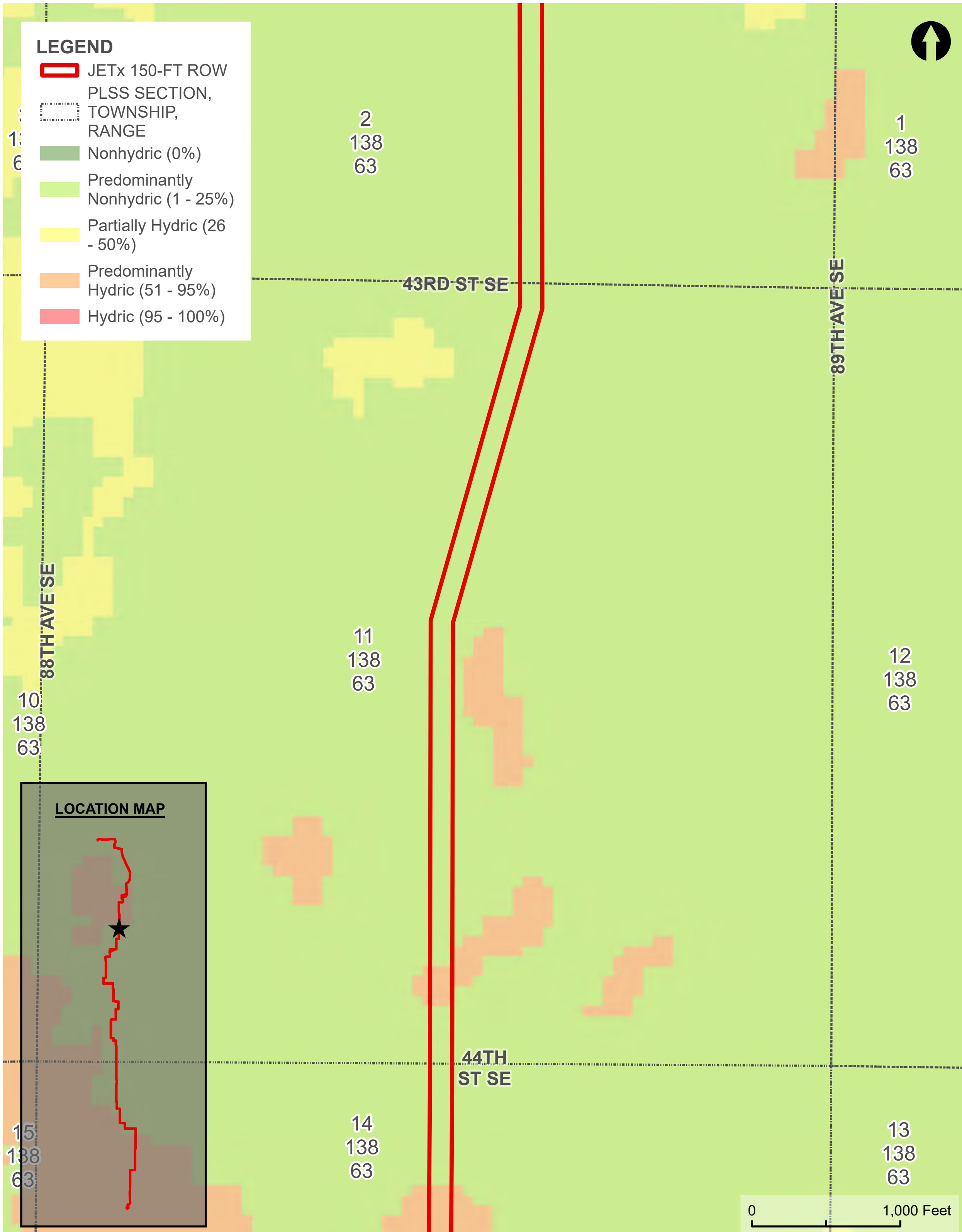

JETx
Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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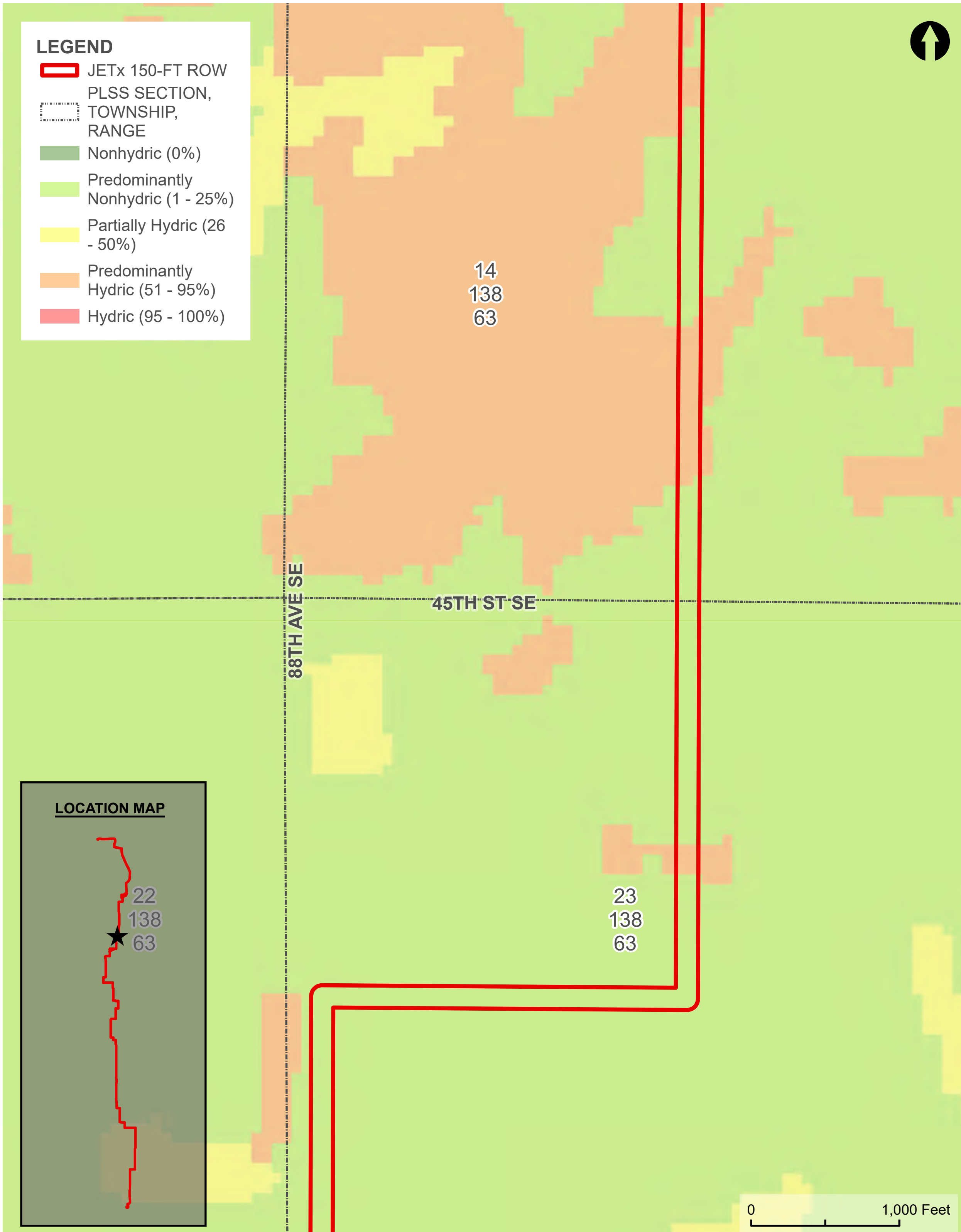
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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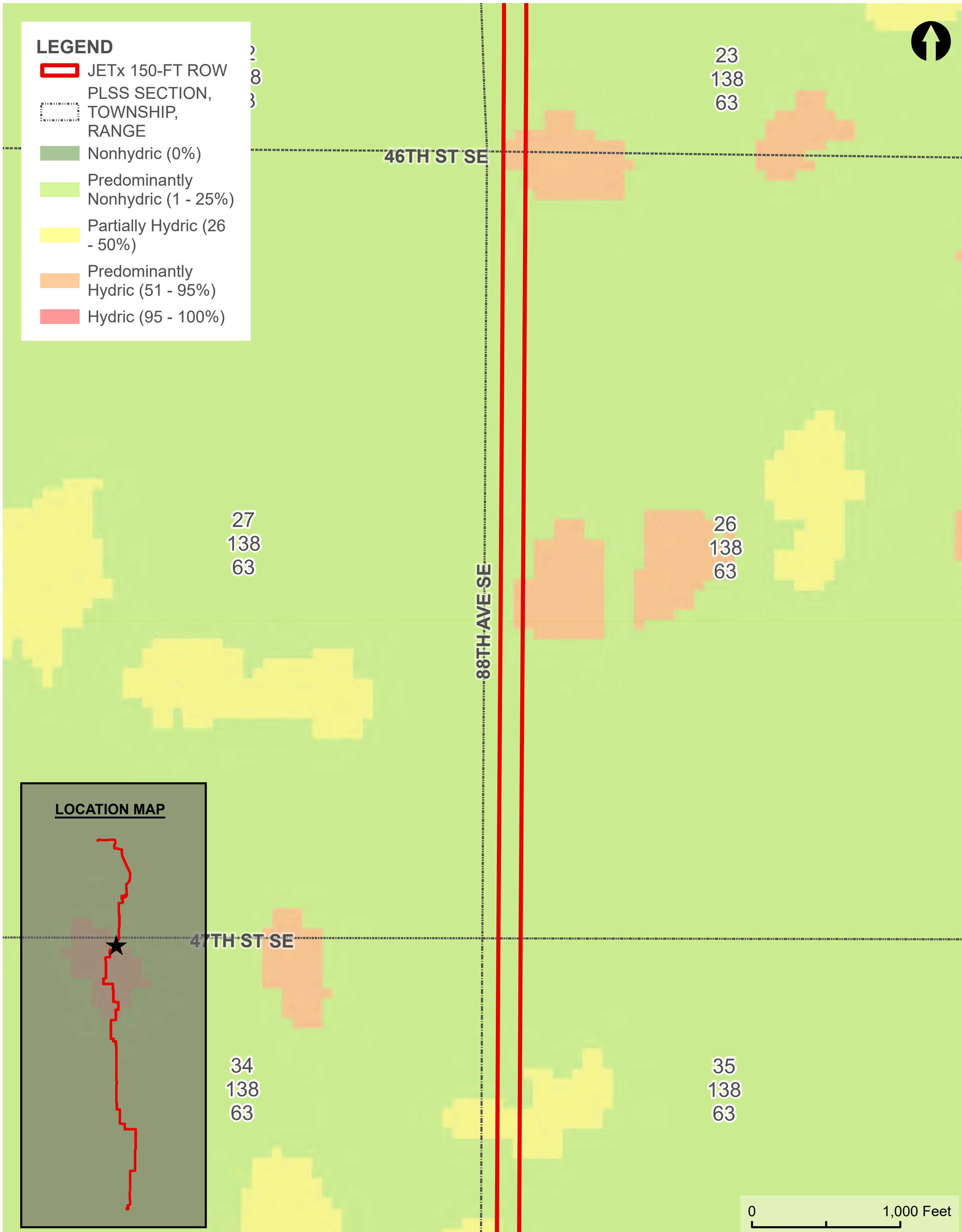
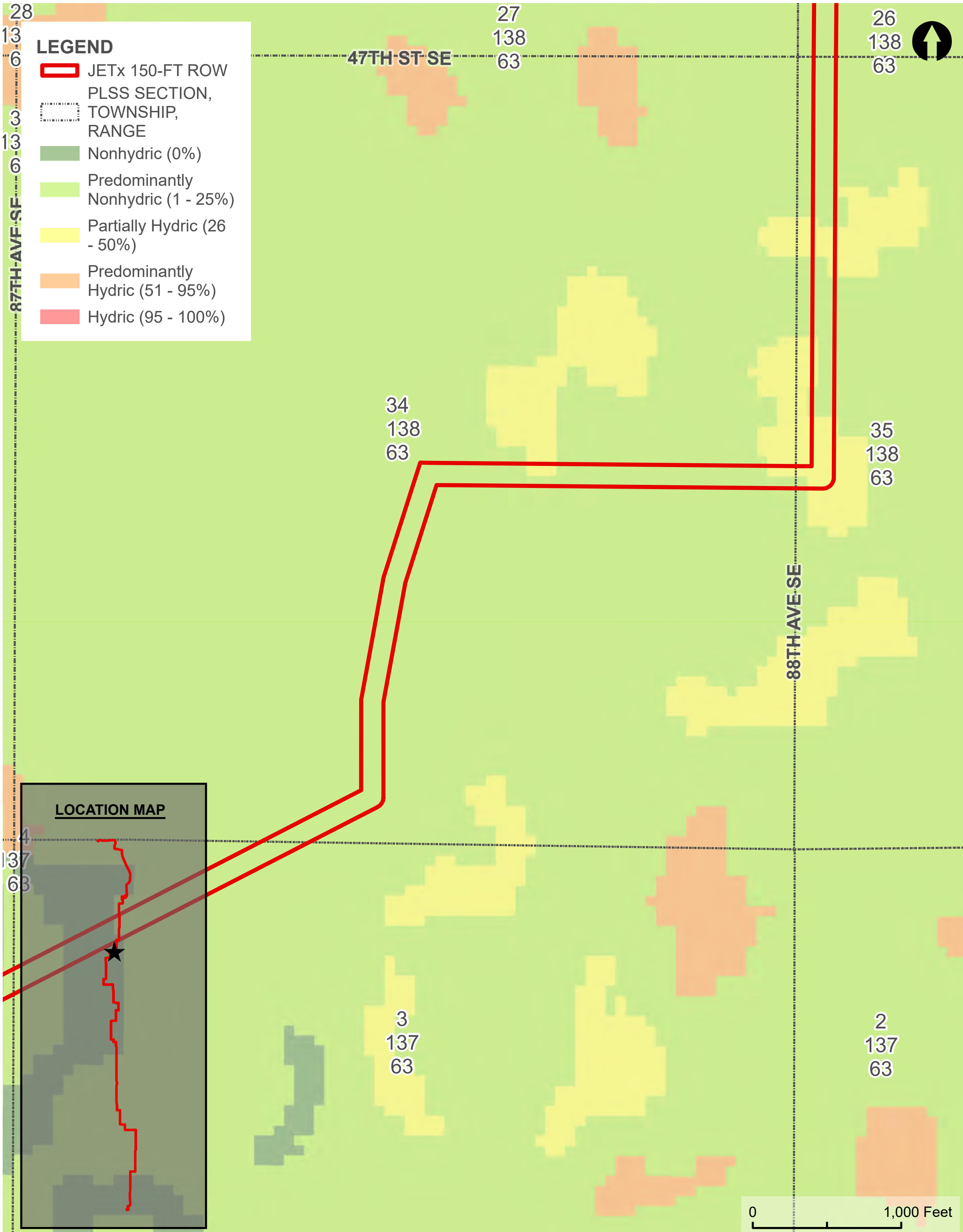
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



JETx

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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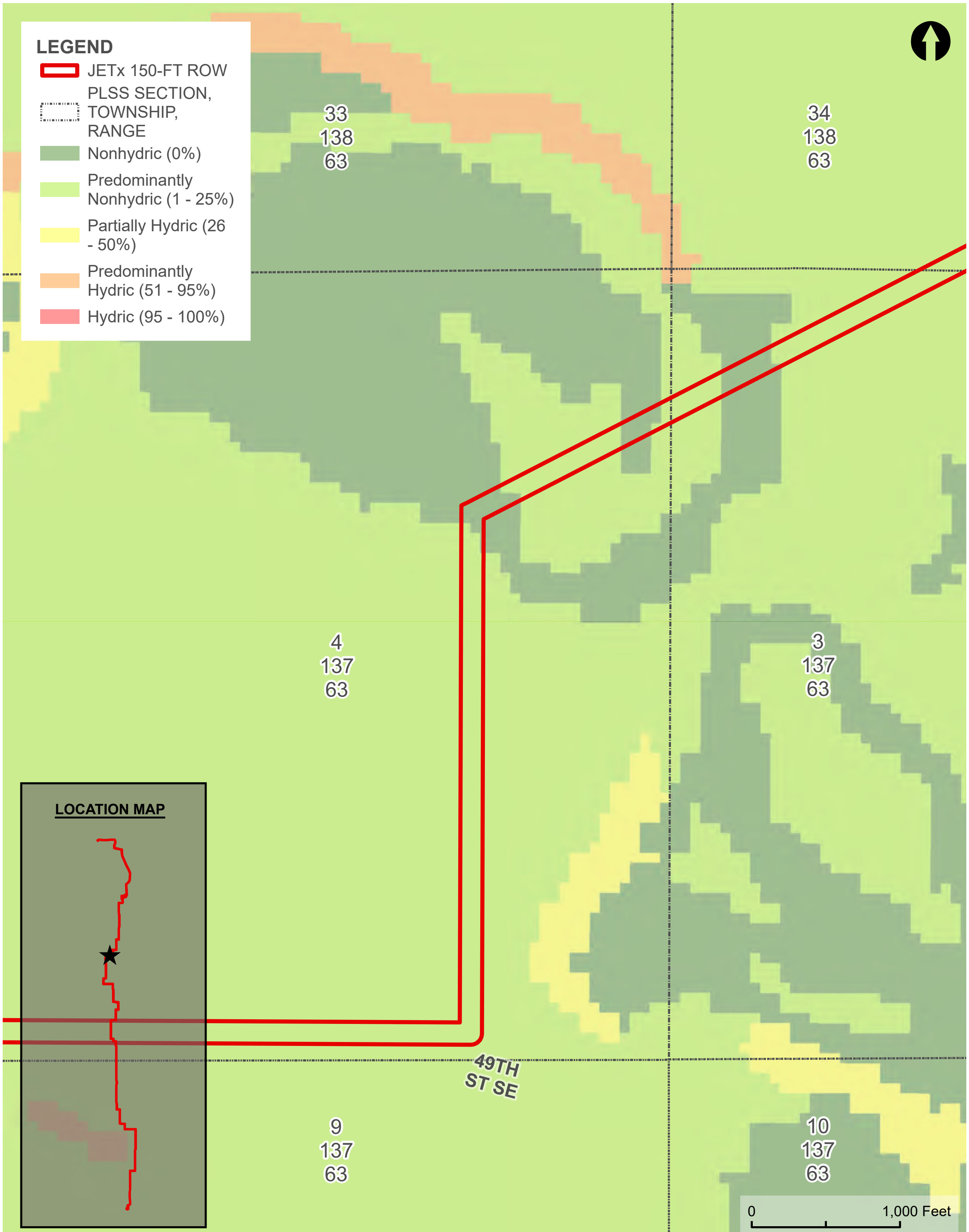
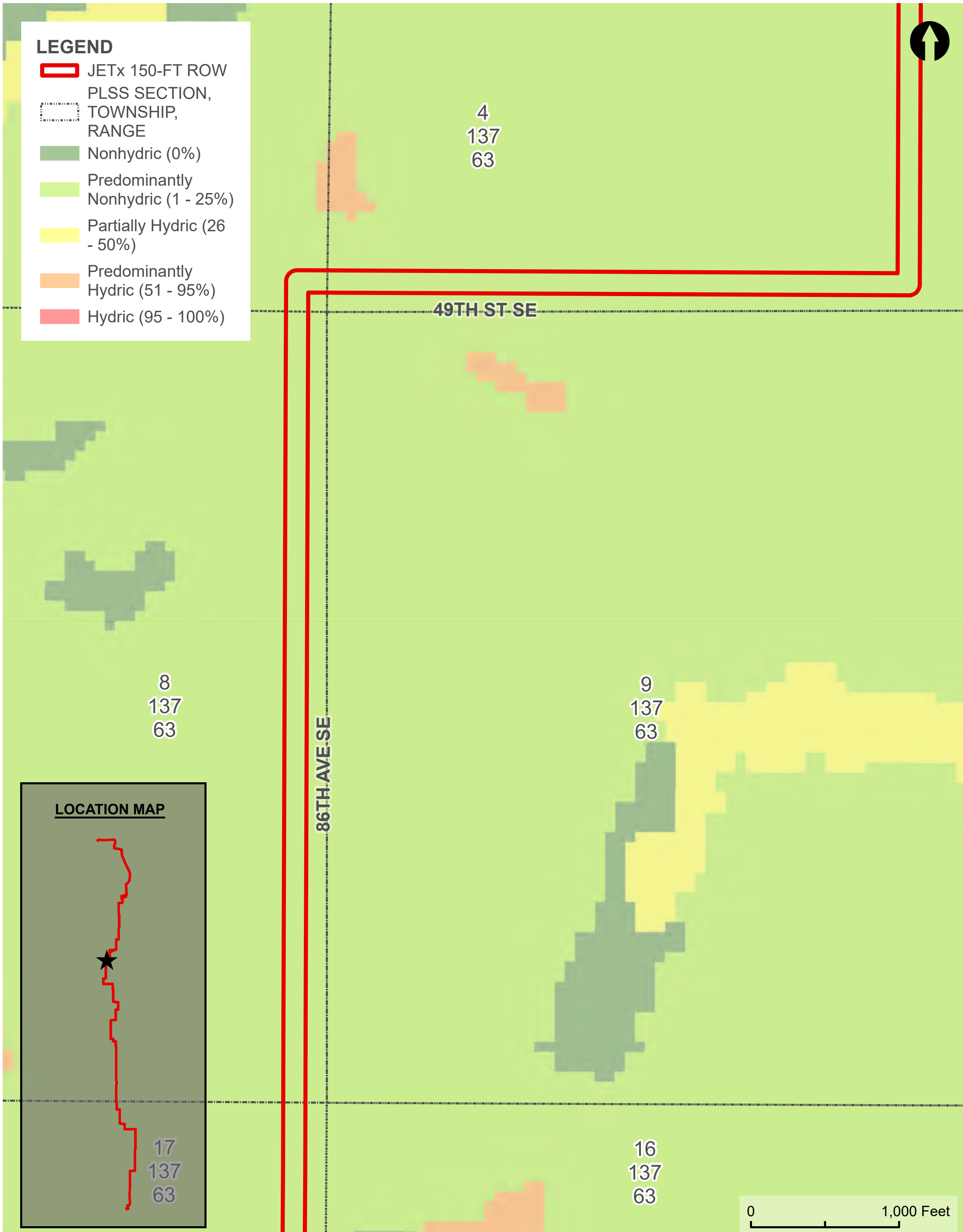
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

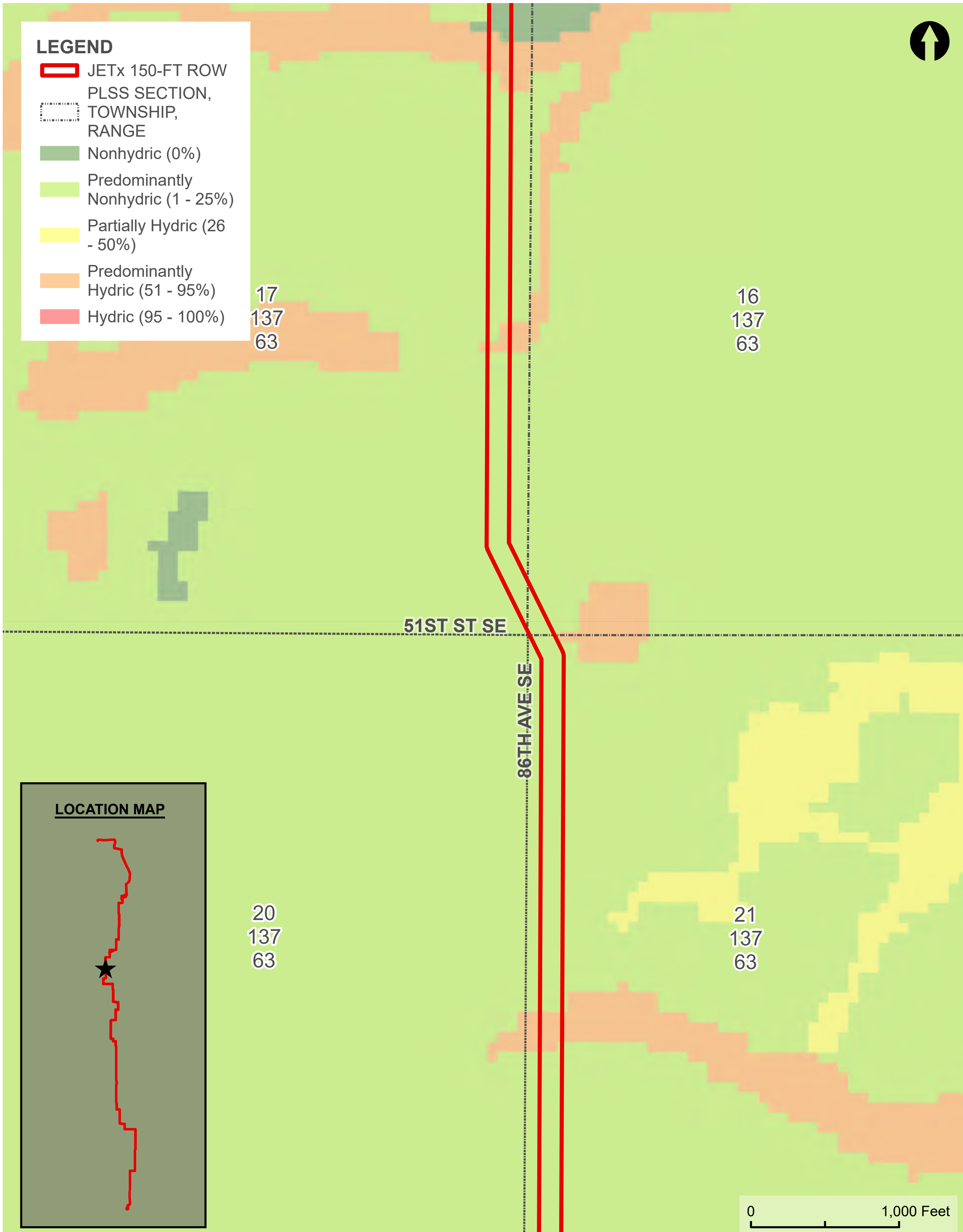


JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

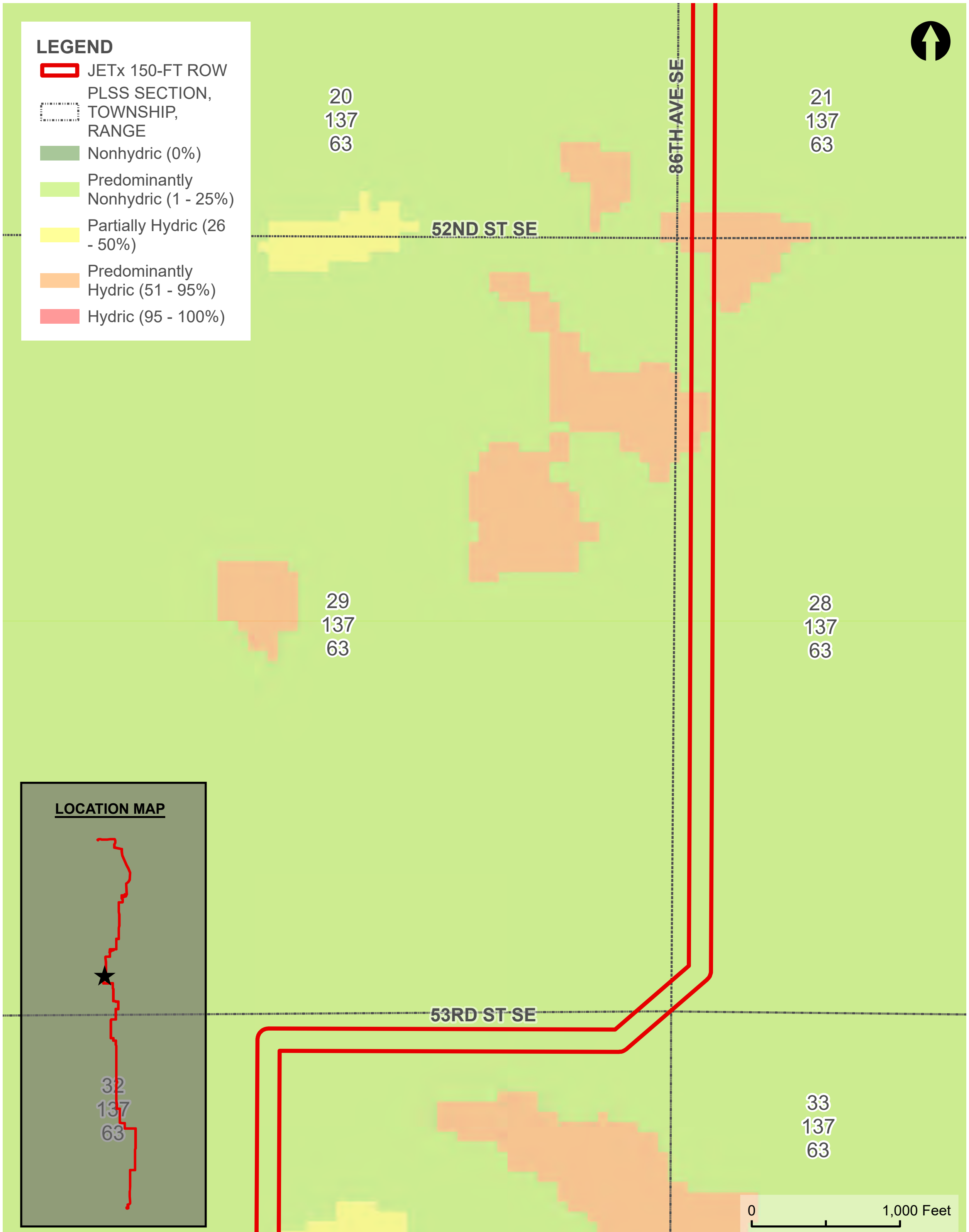


NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

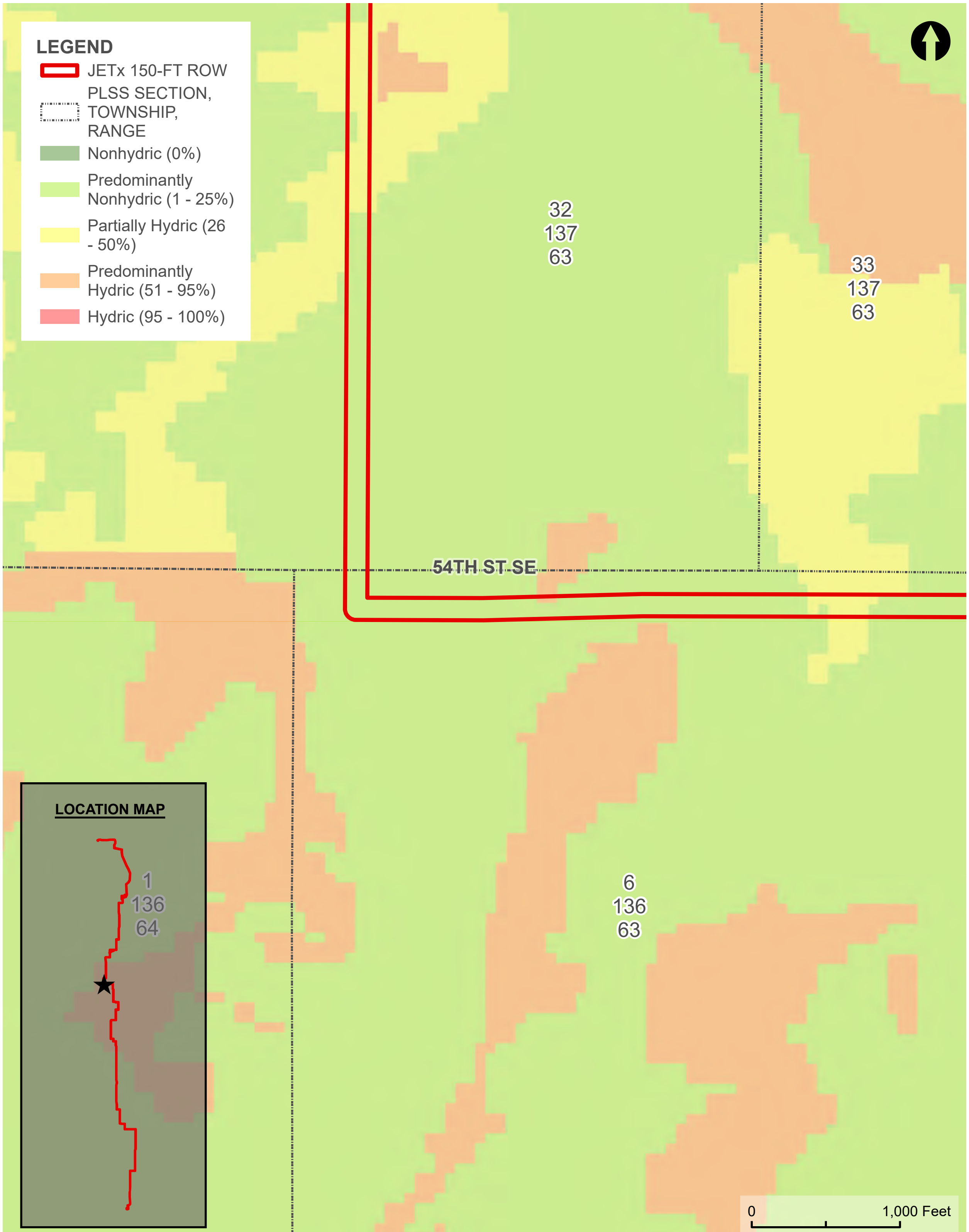
PAGE 21 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

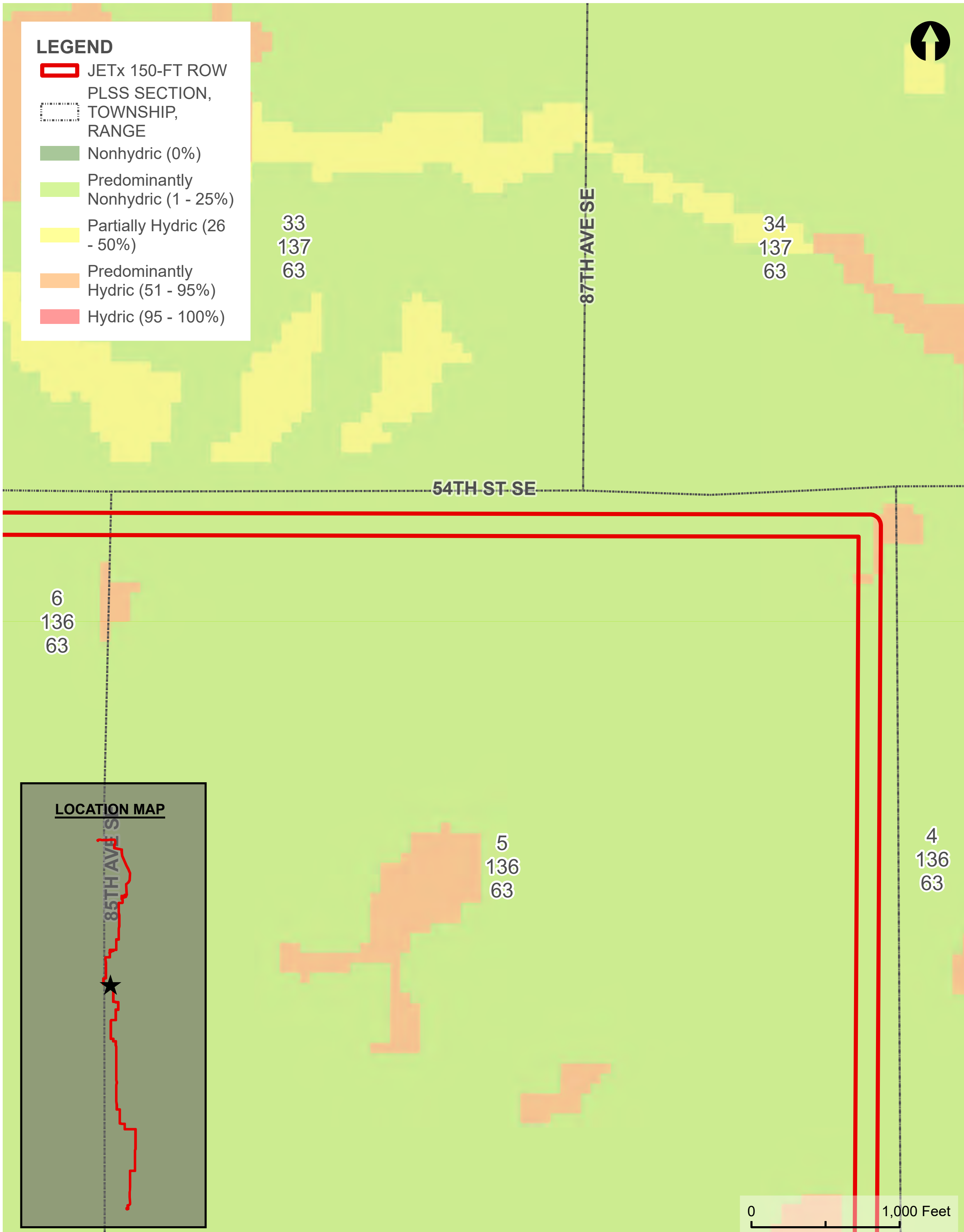
FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

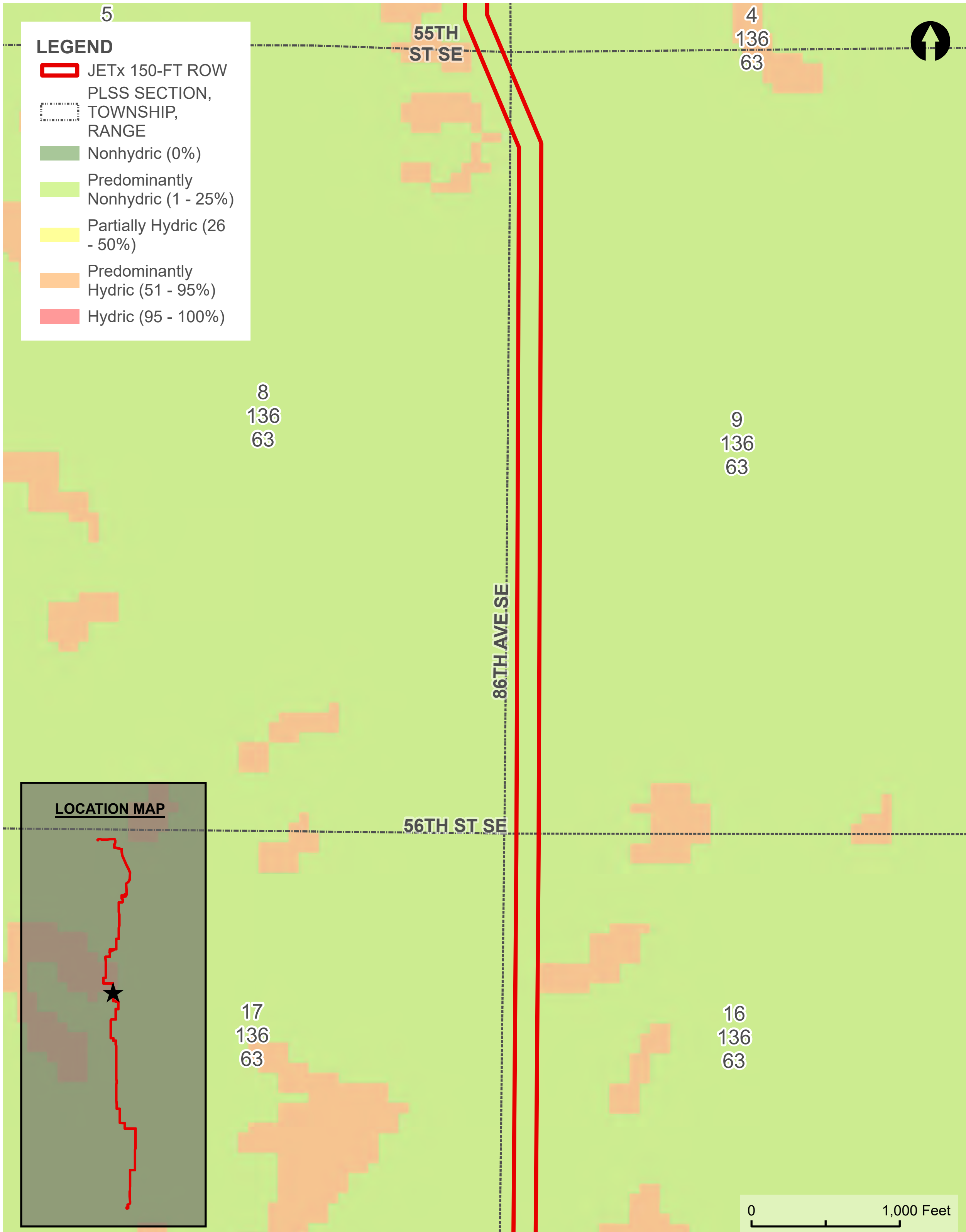
FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



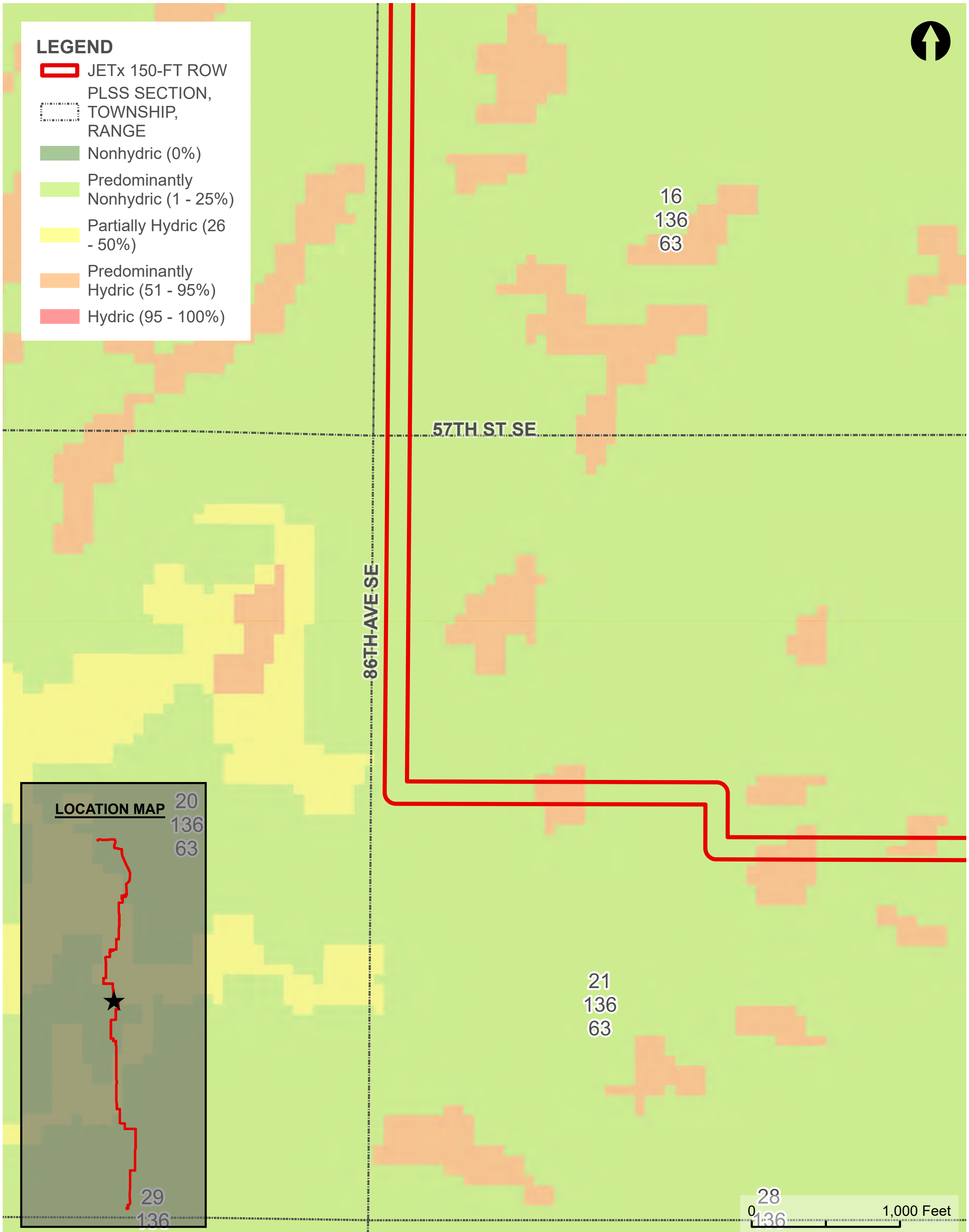
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



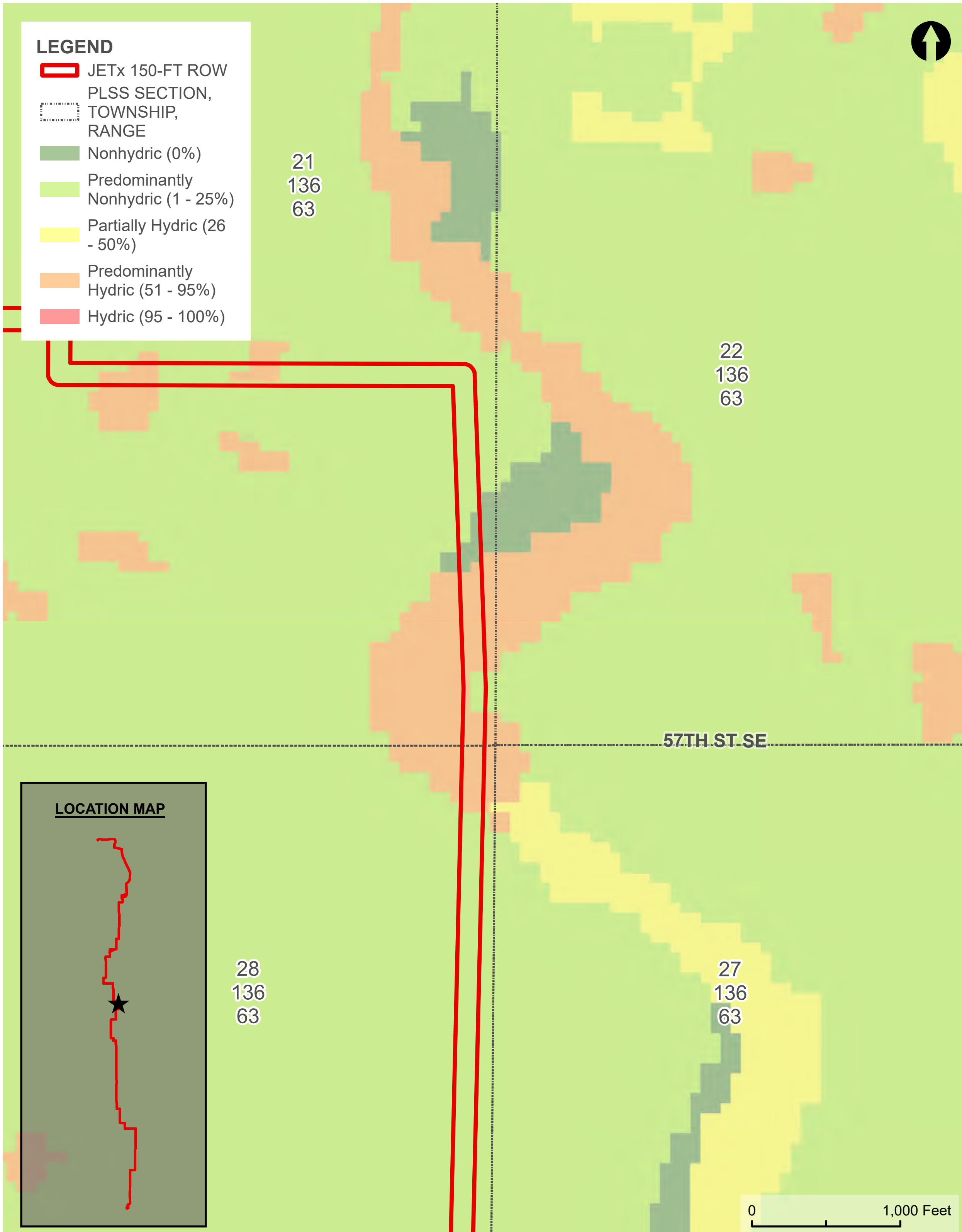
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

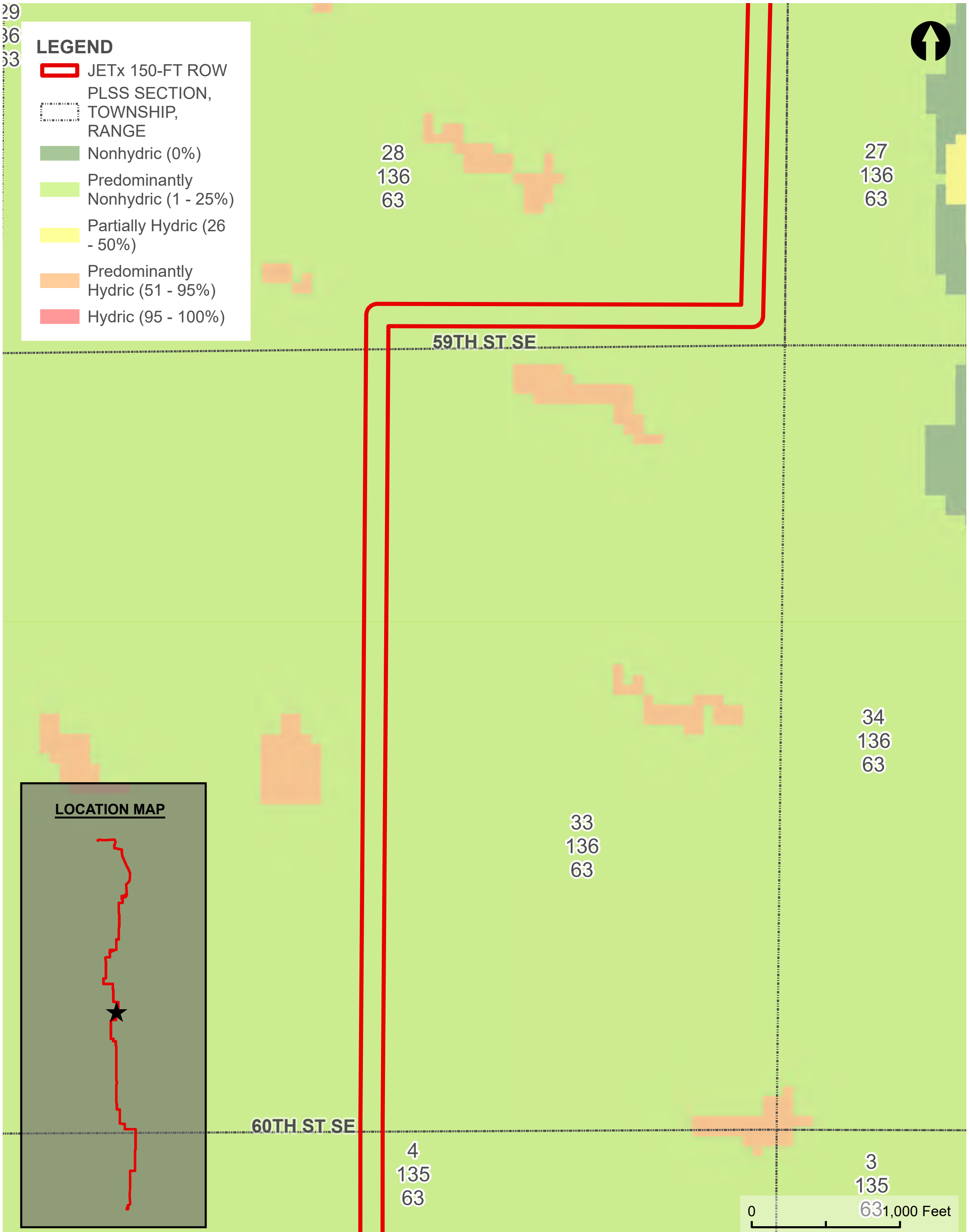
FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

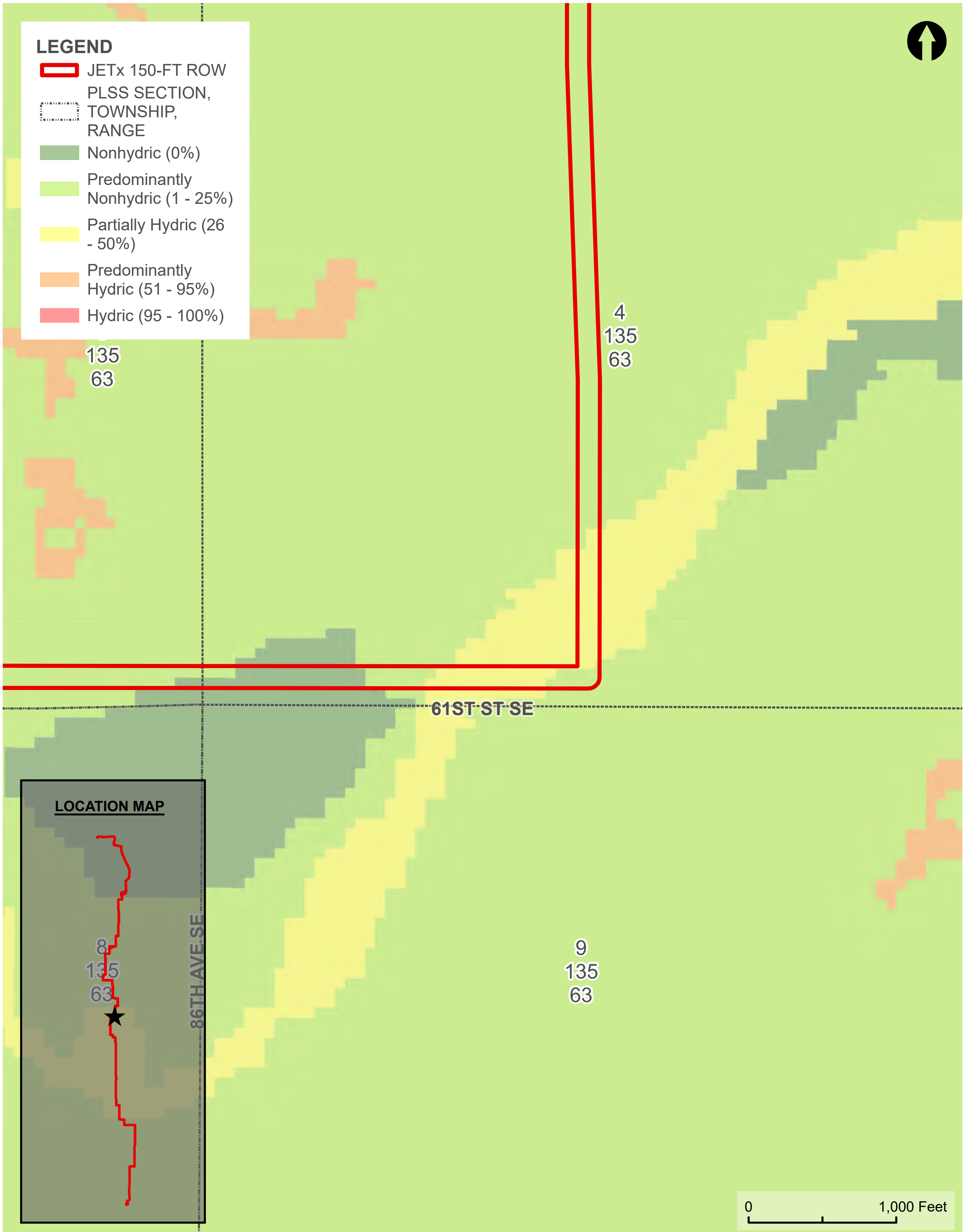
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

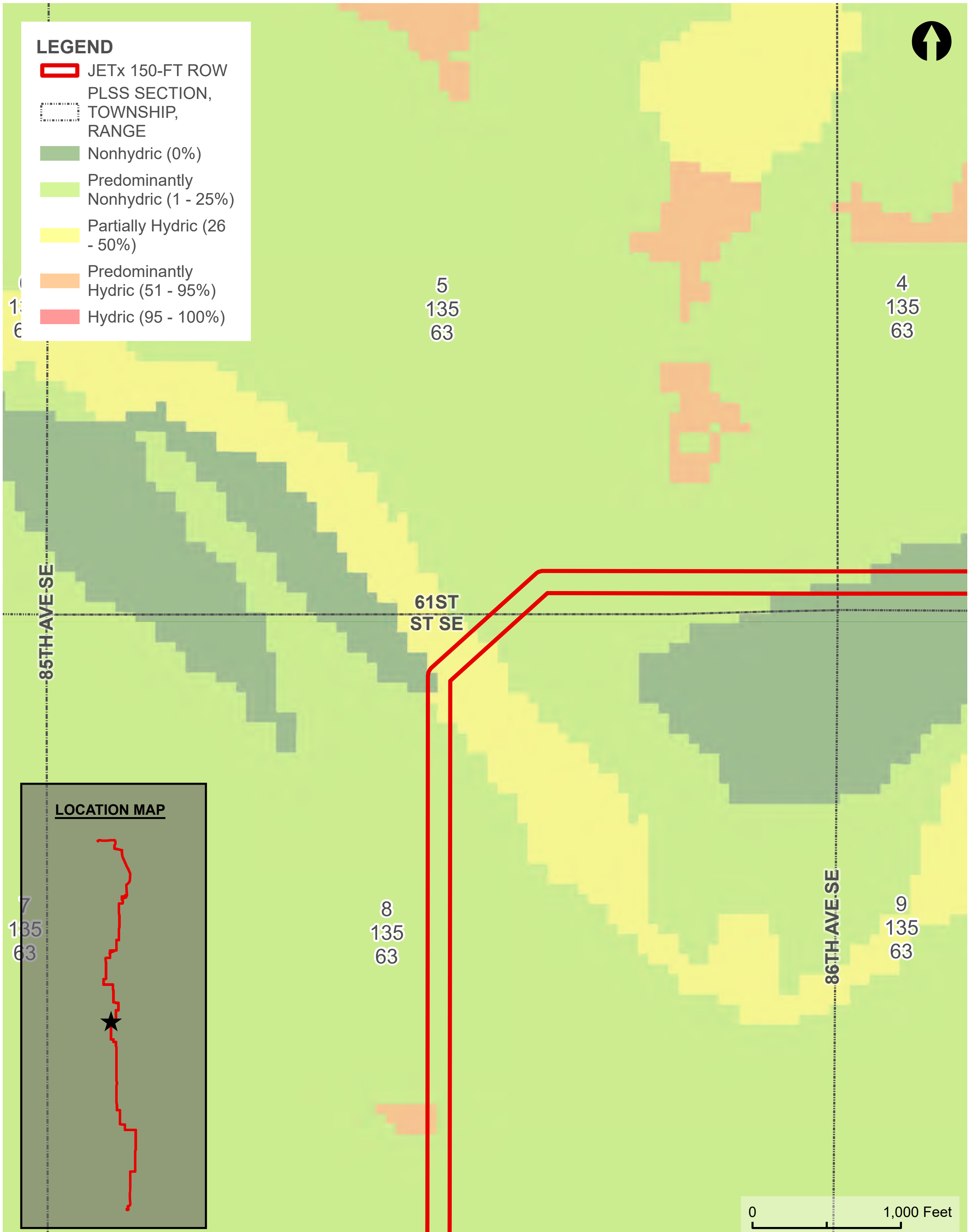
FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



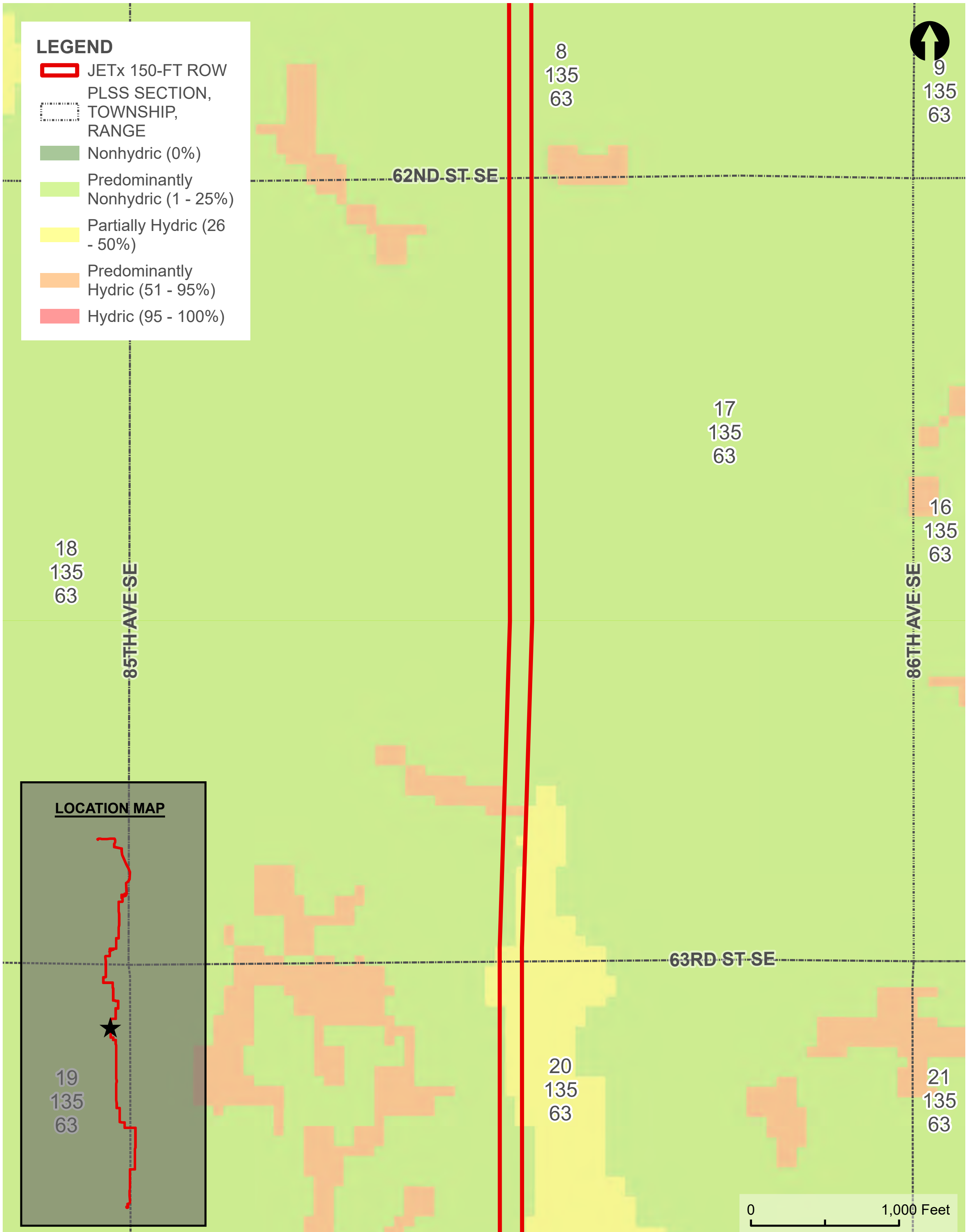
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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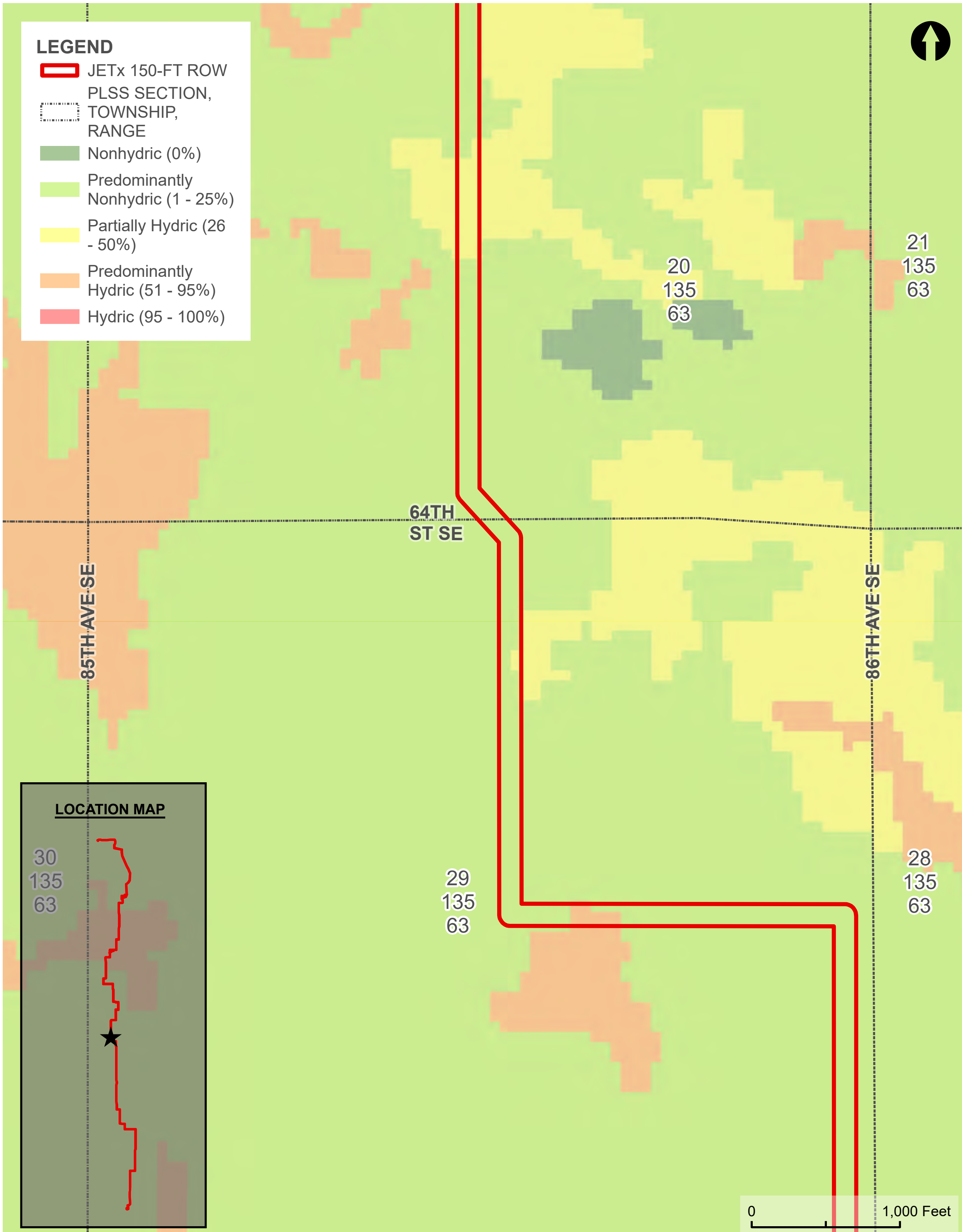
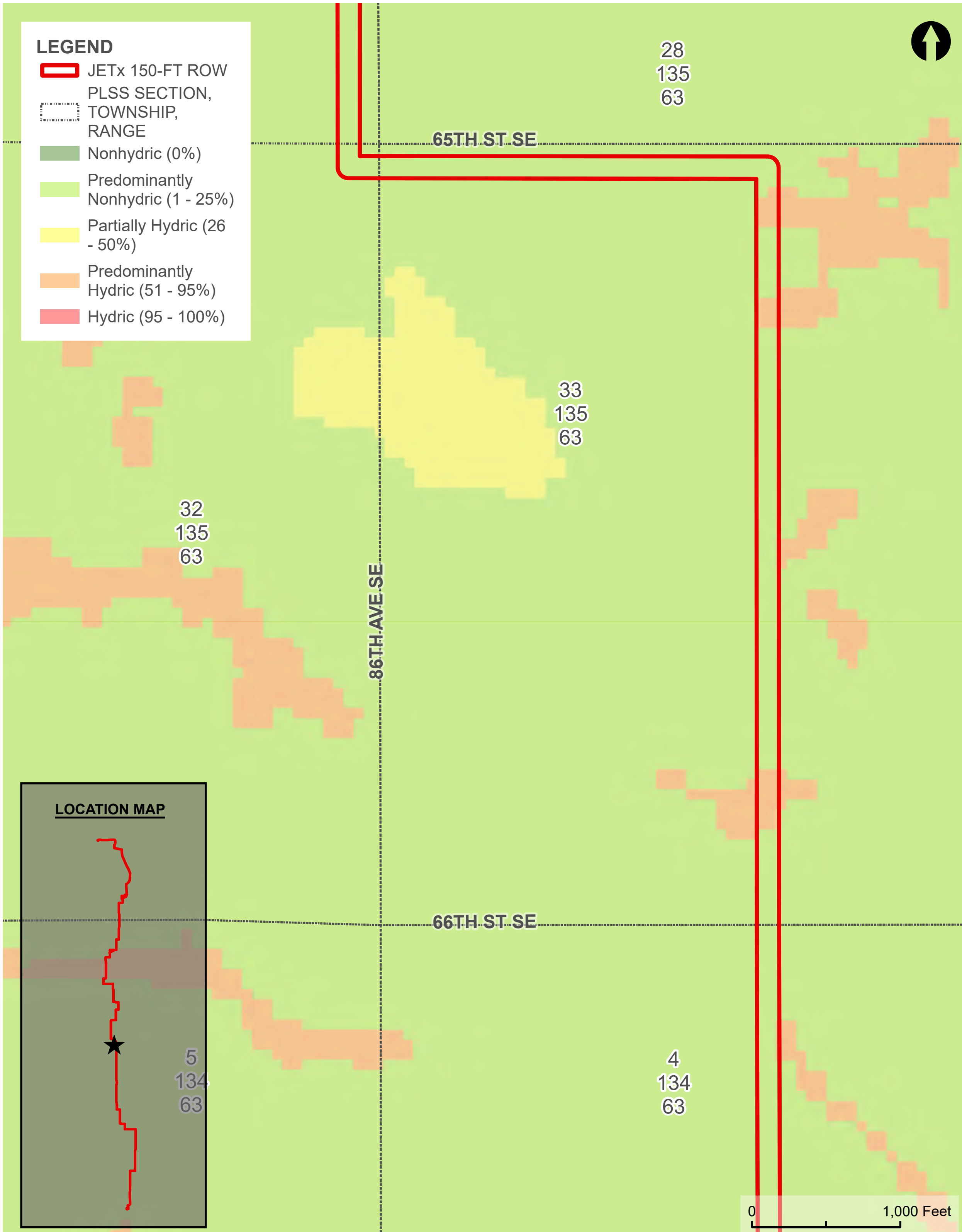
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx Jamestown to Ellendale

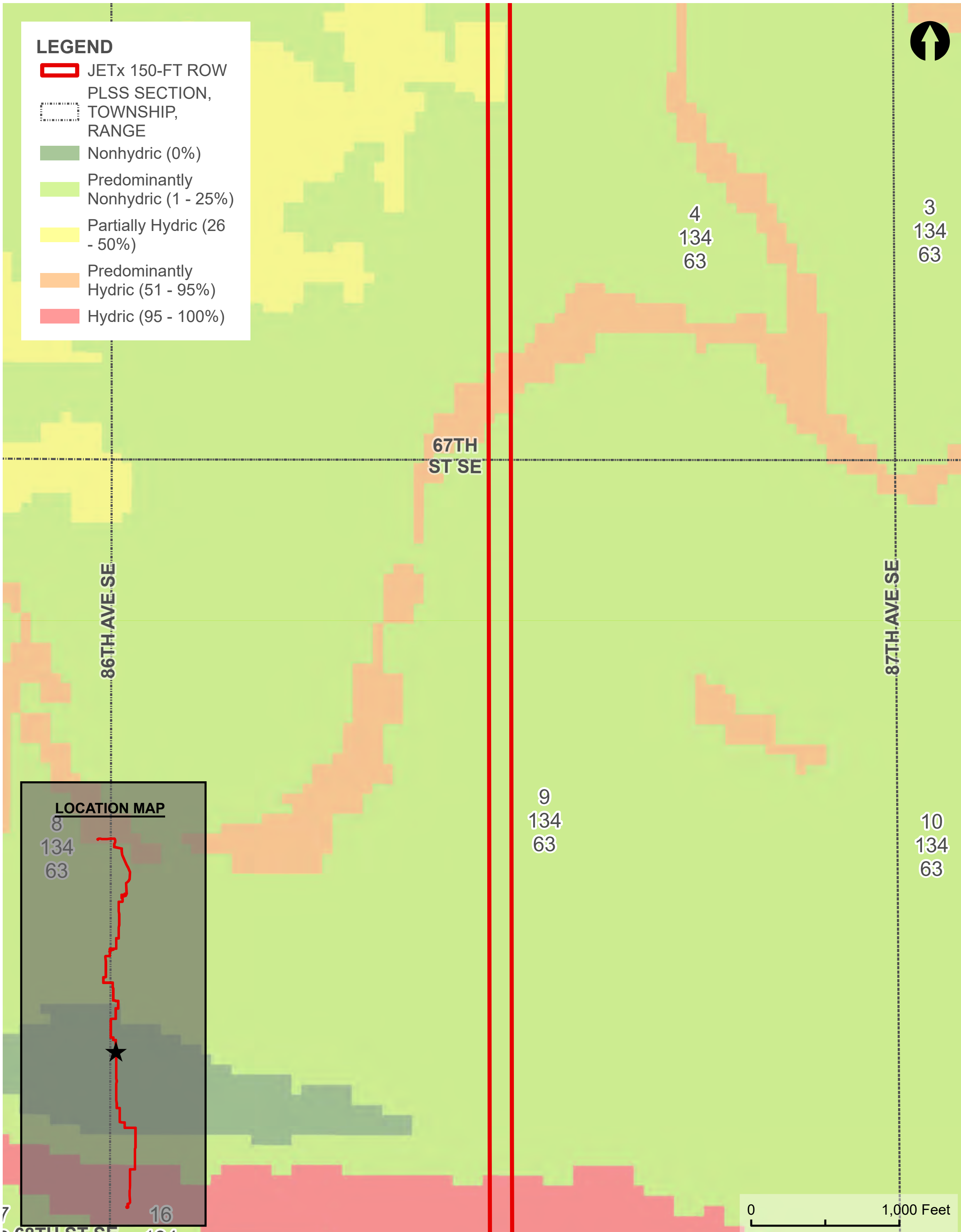
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

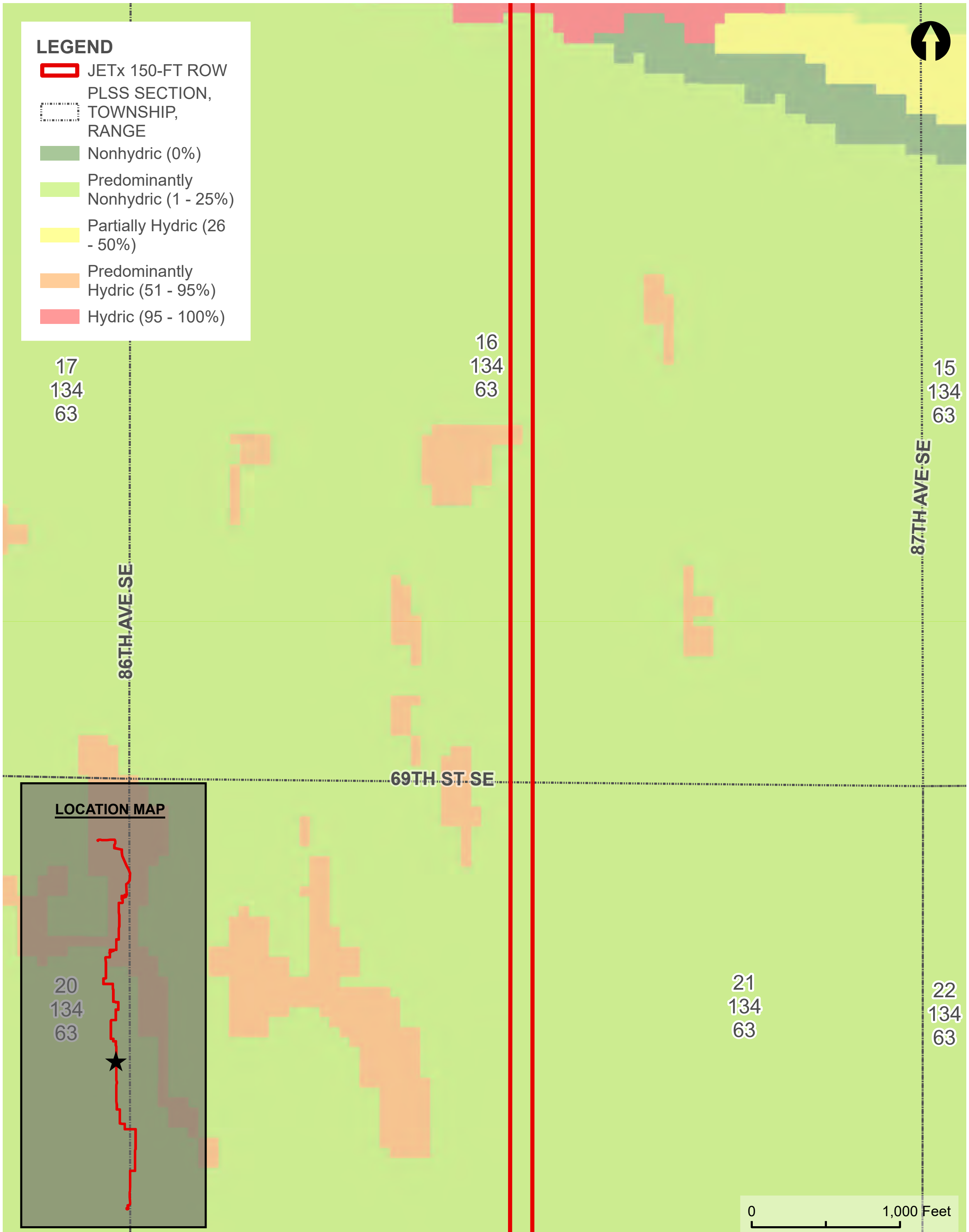
FIGURE 4



JETx
Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

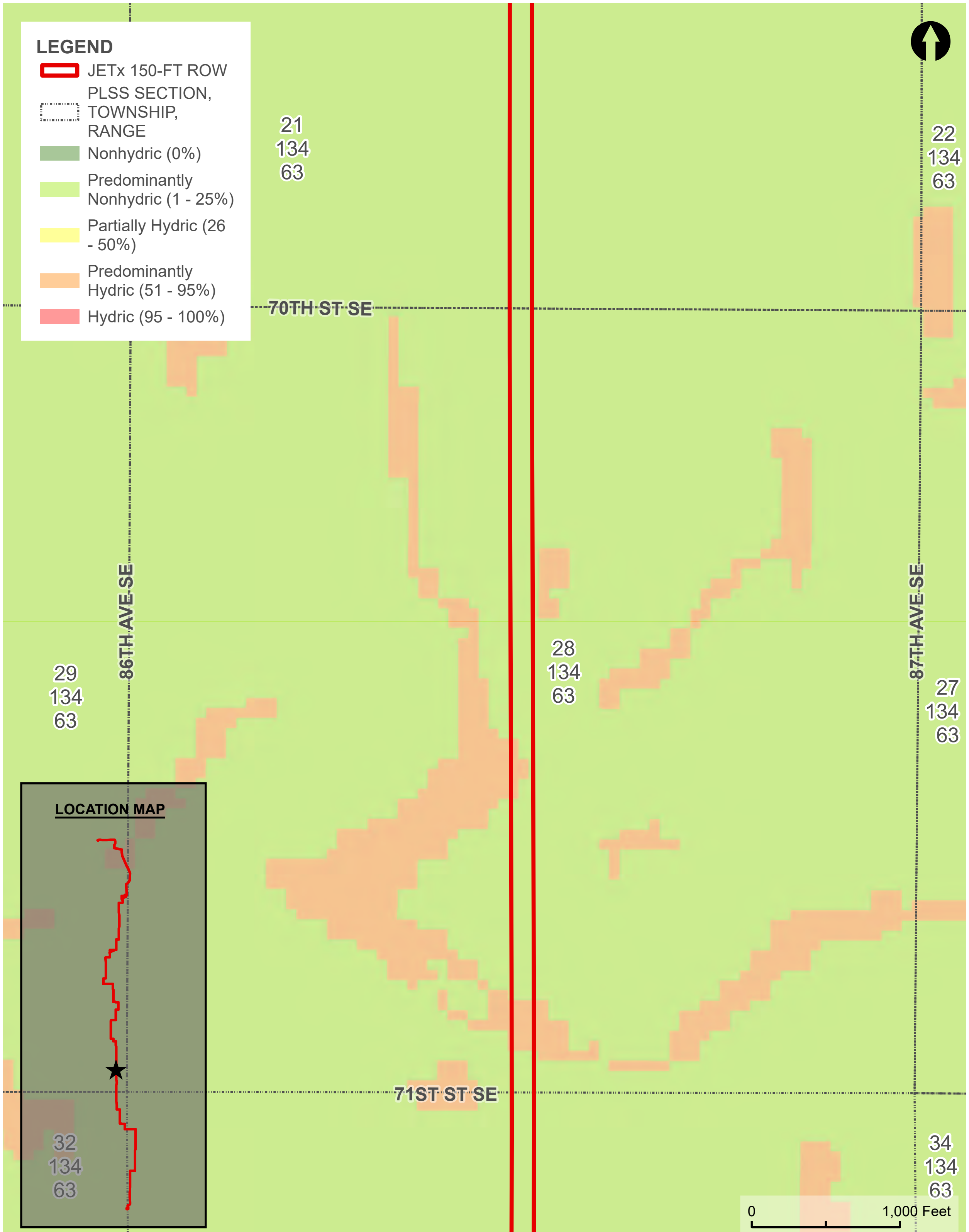
FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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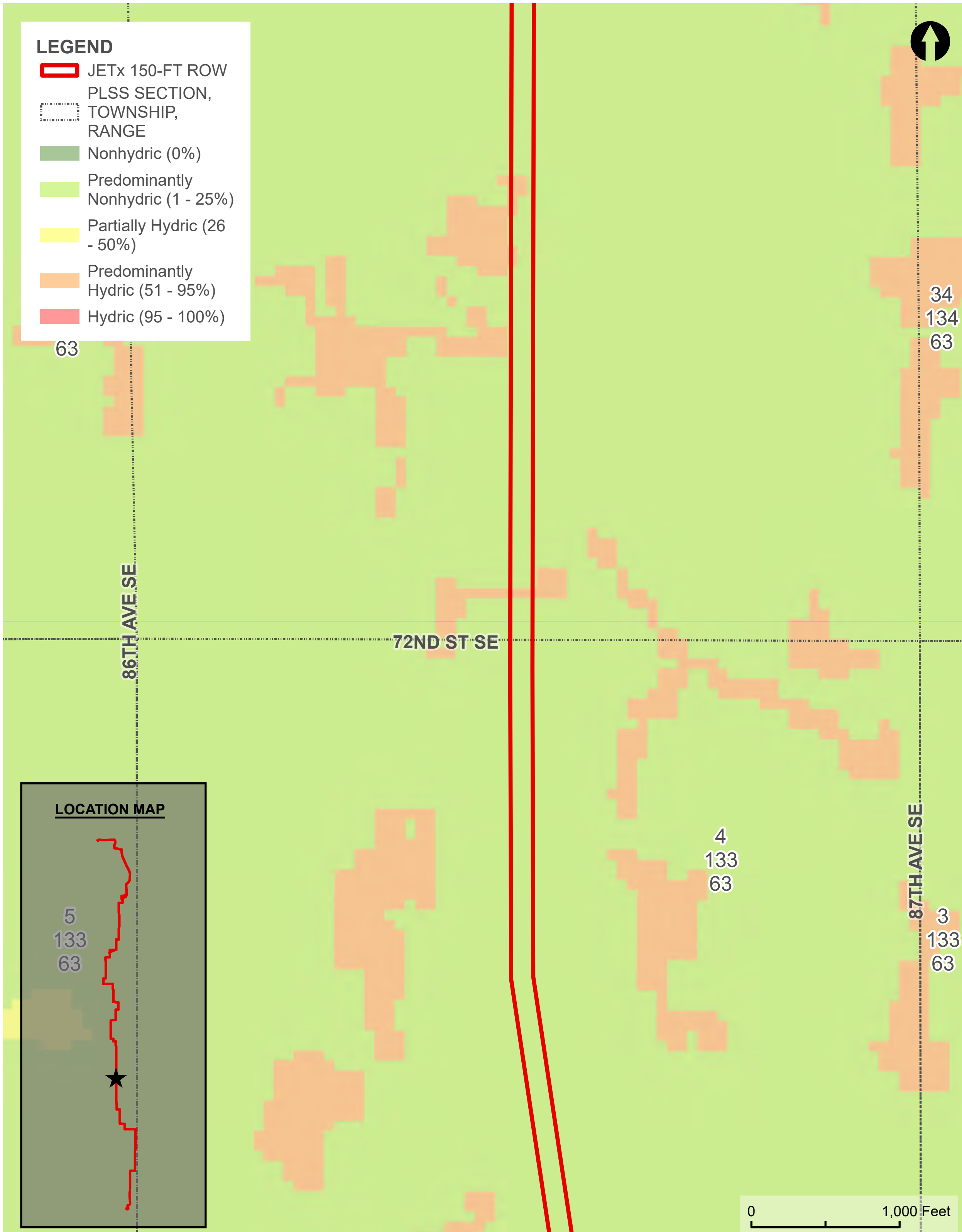
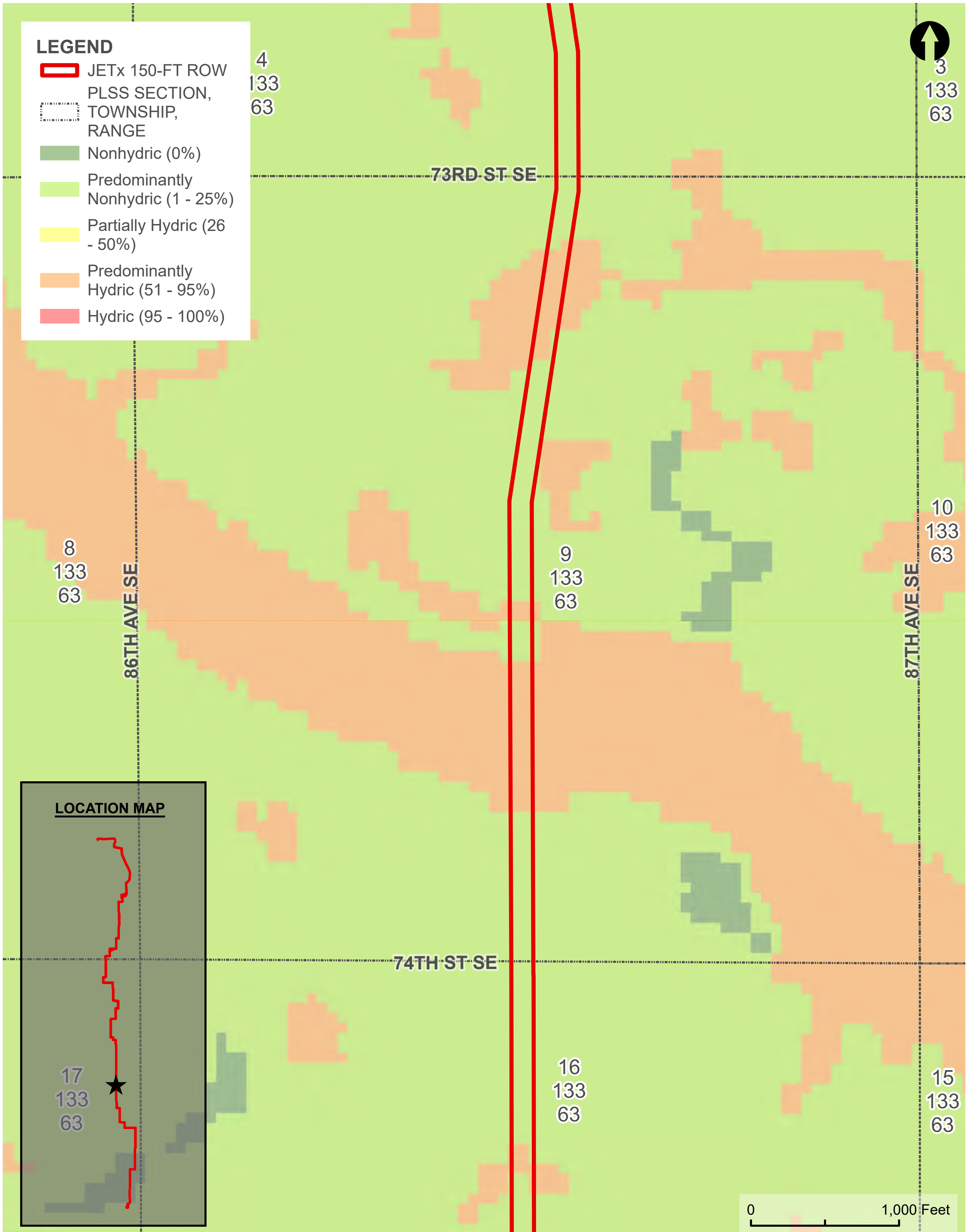
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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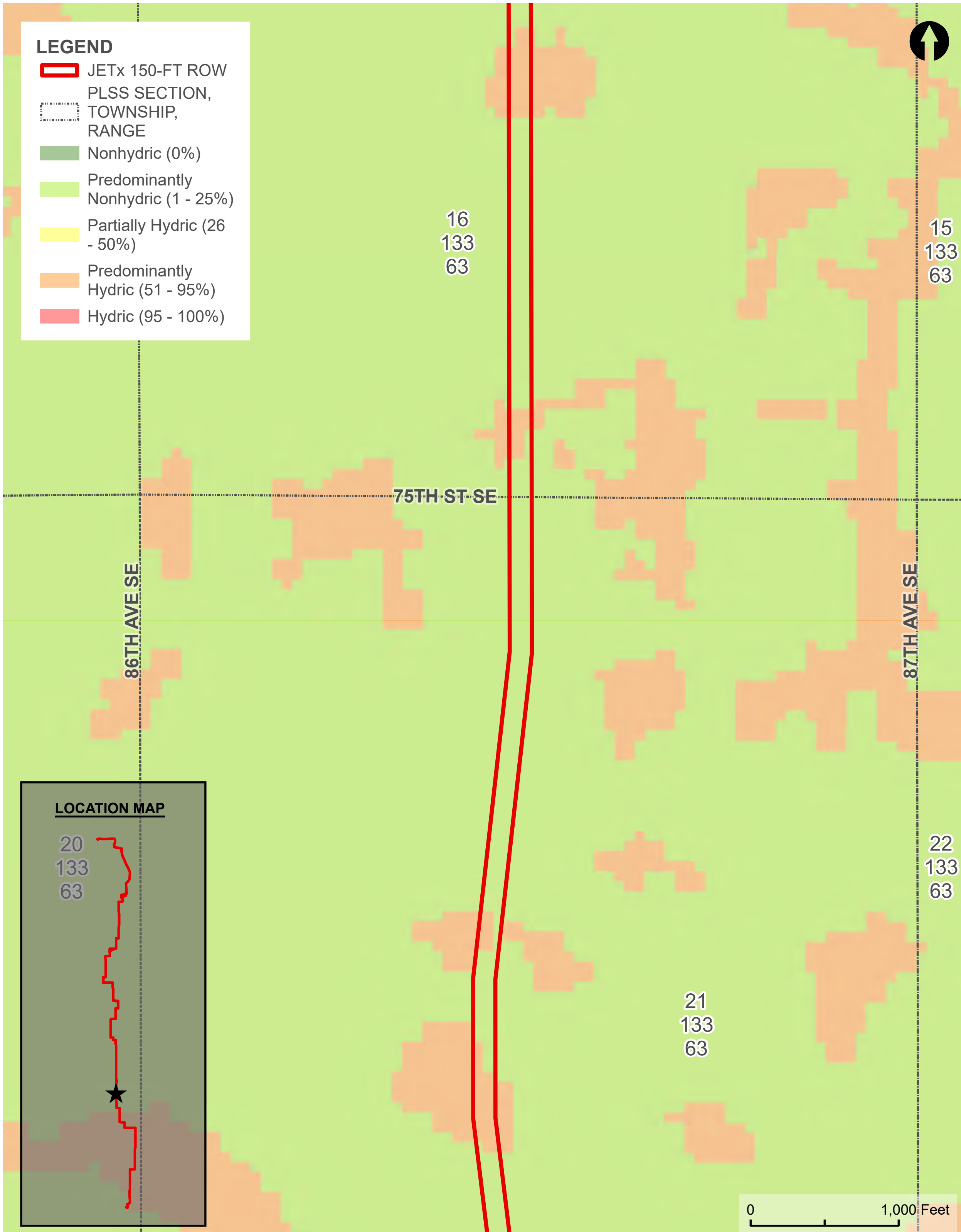
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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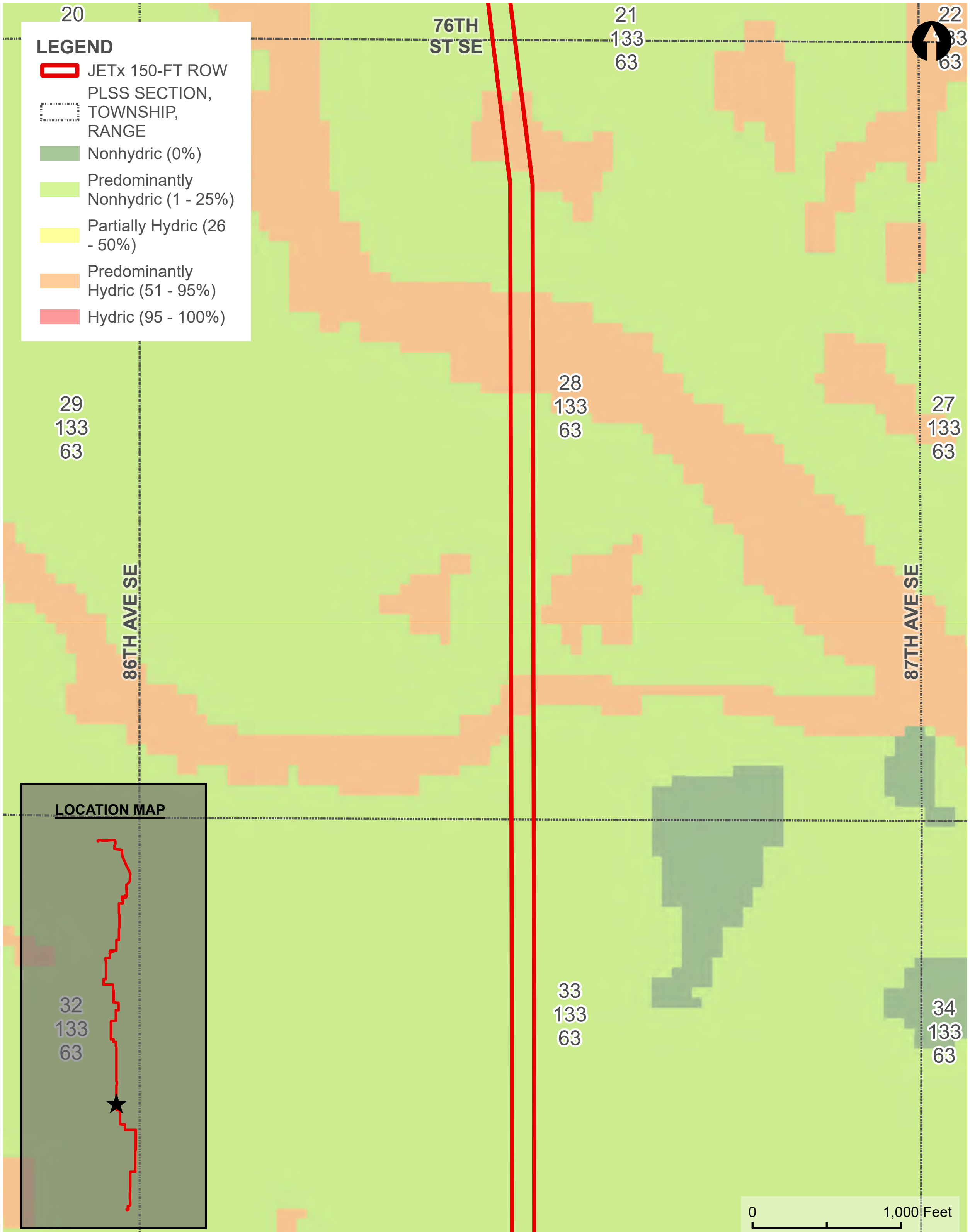
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



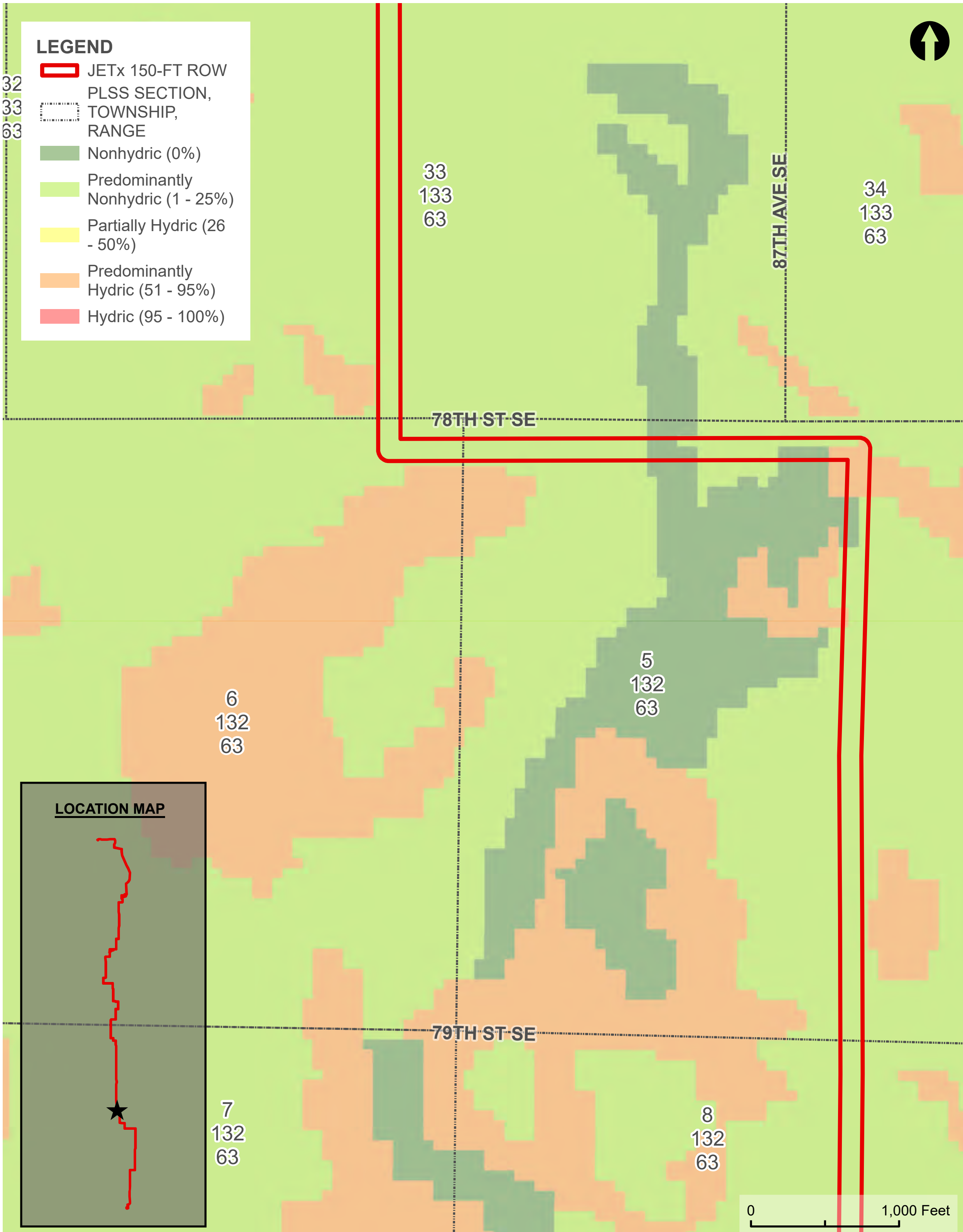
JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

PAGE 40 OF 55

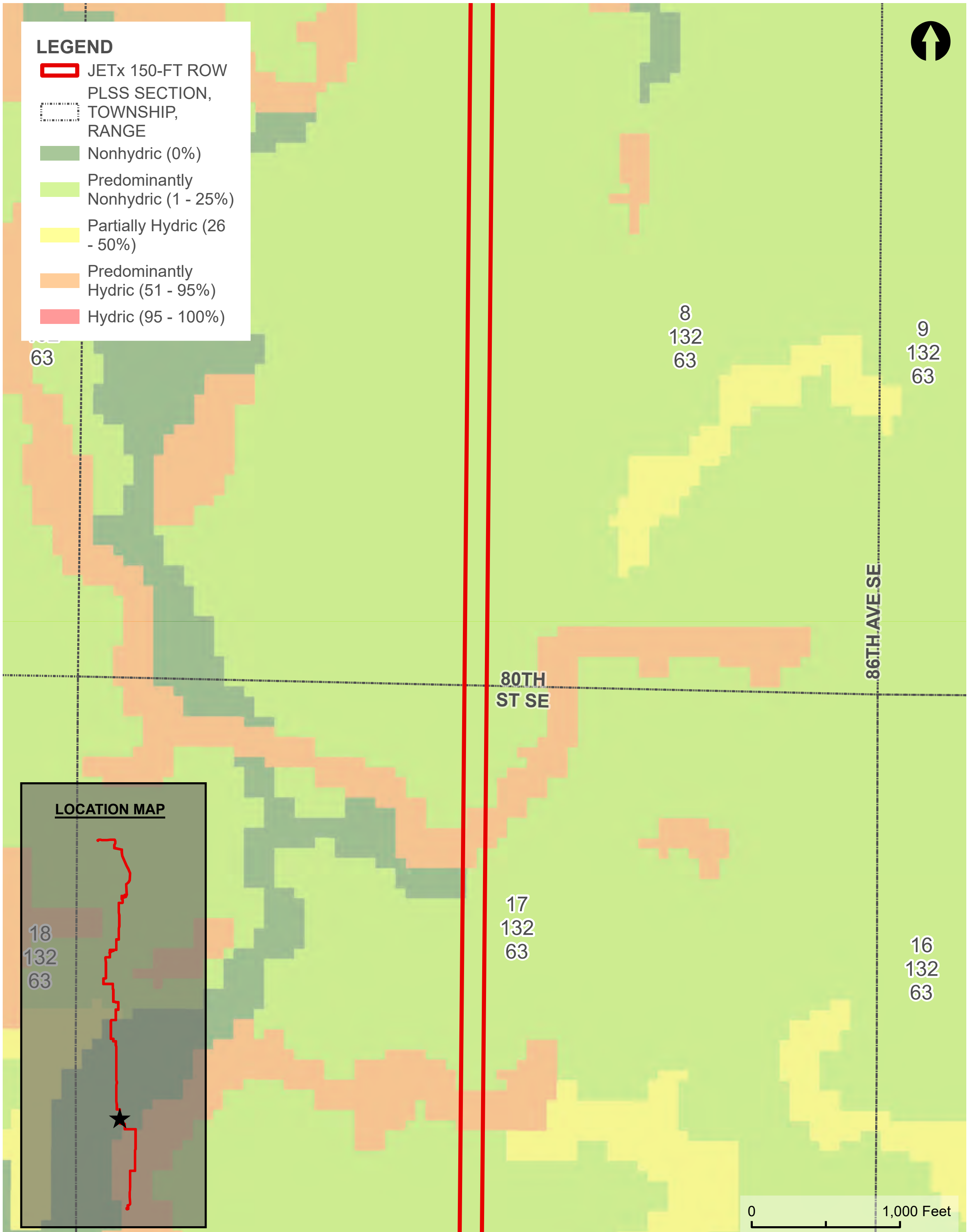
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

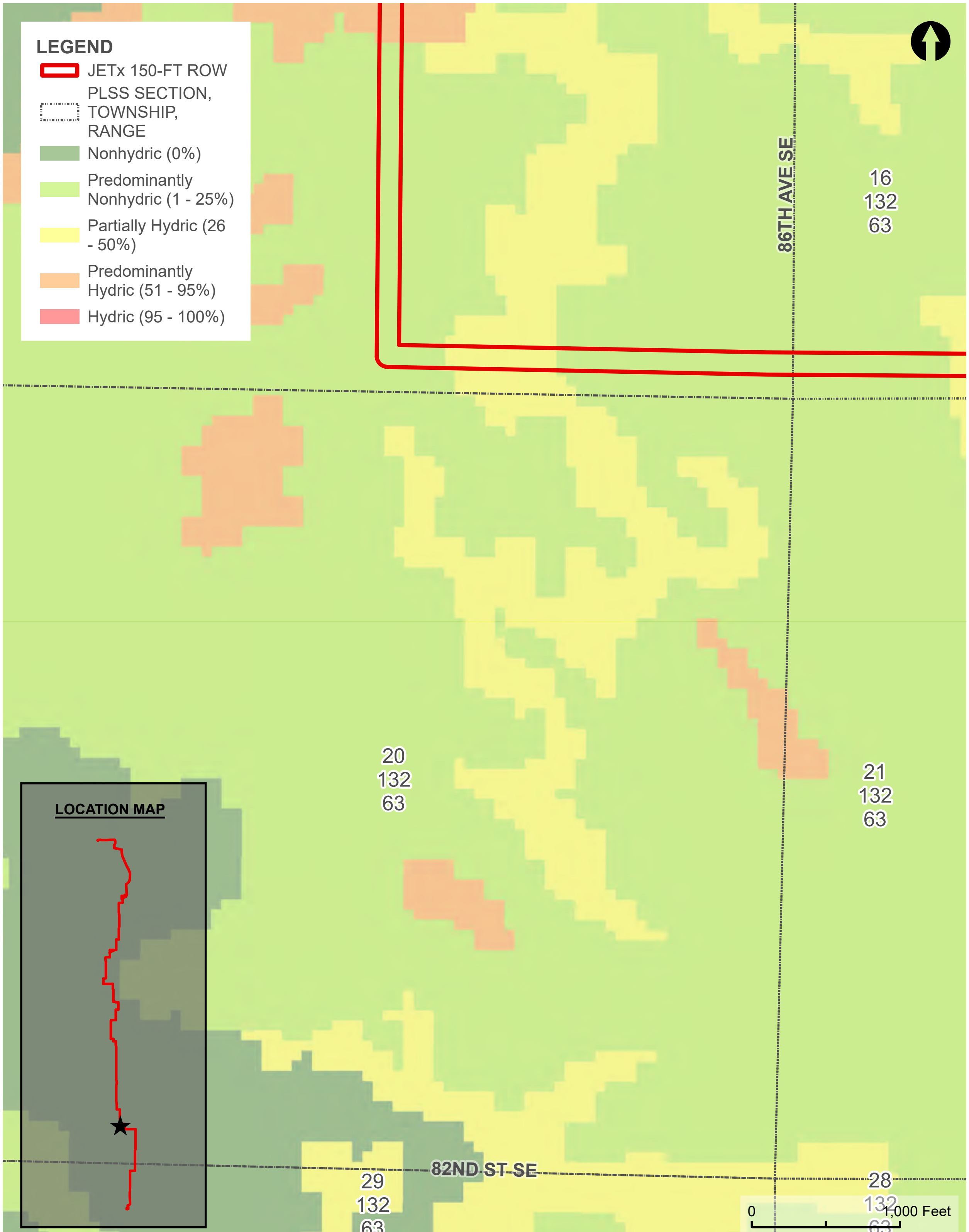
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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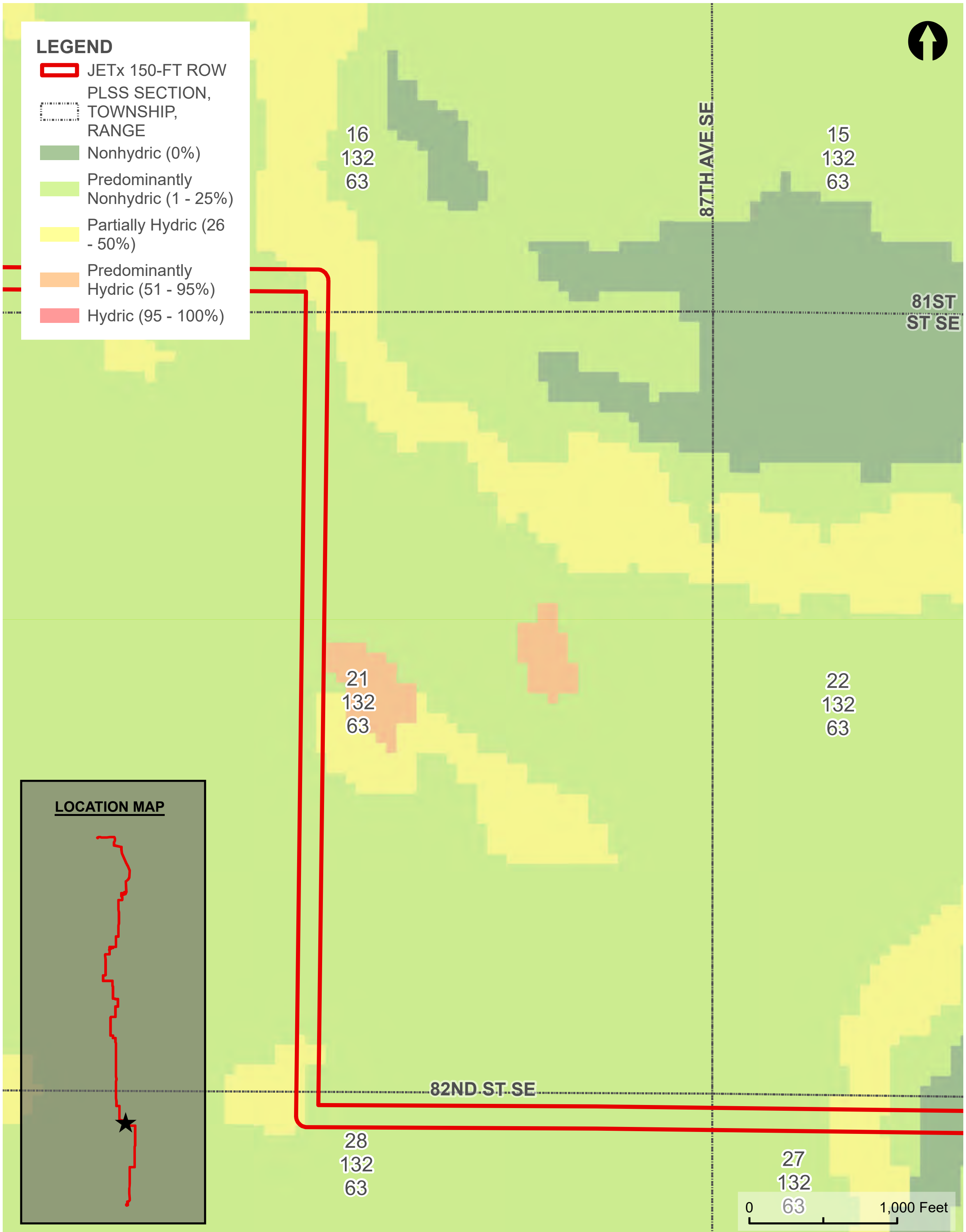
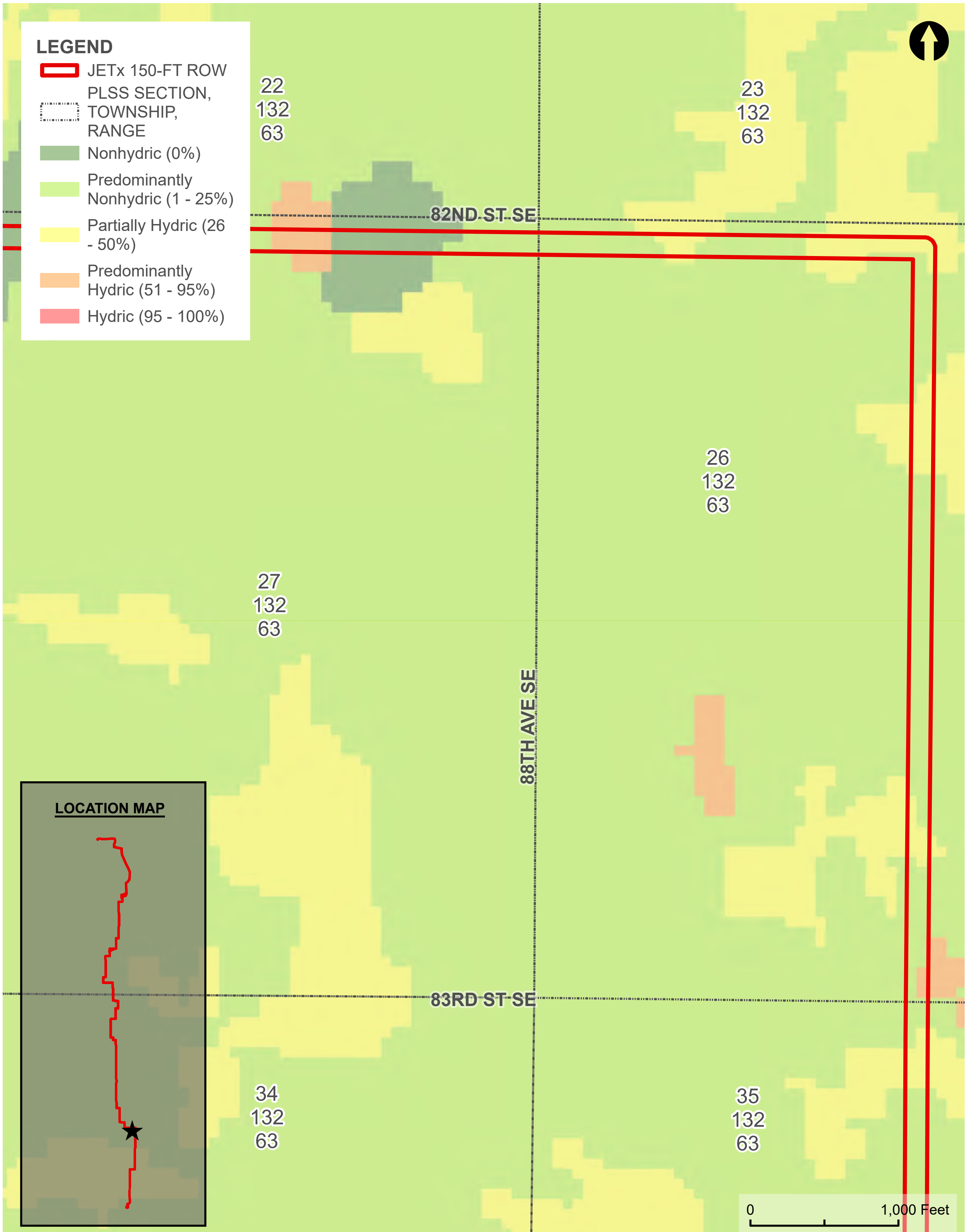
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

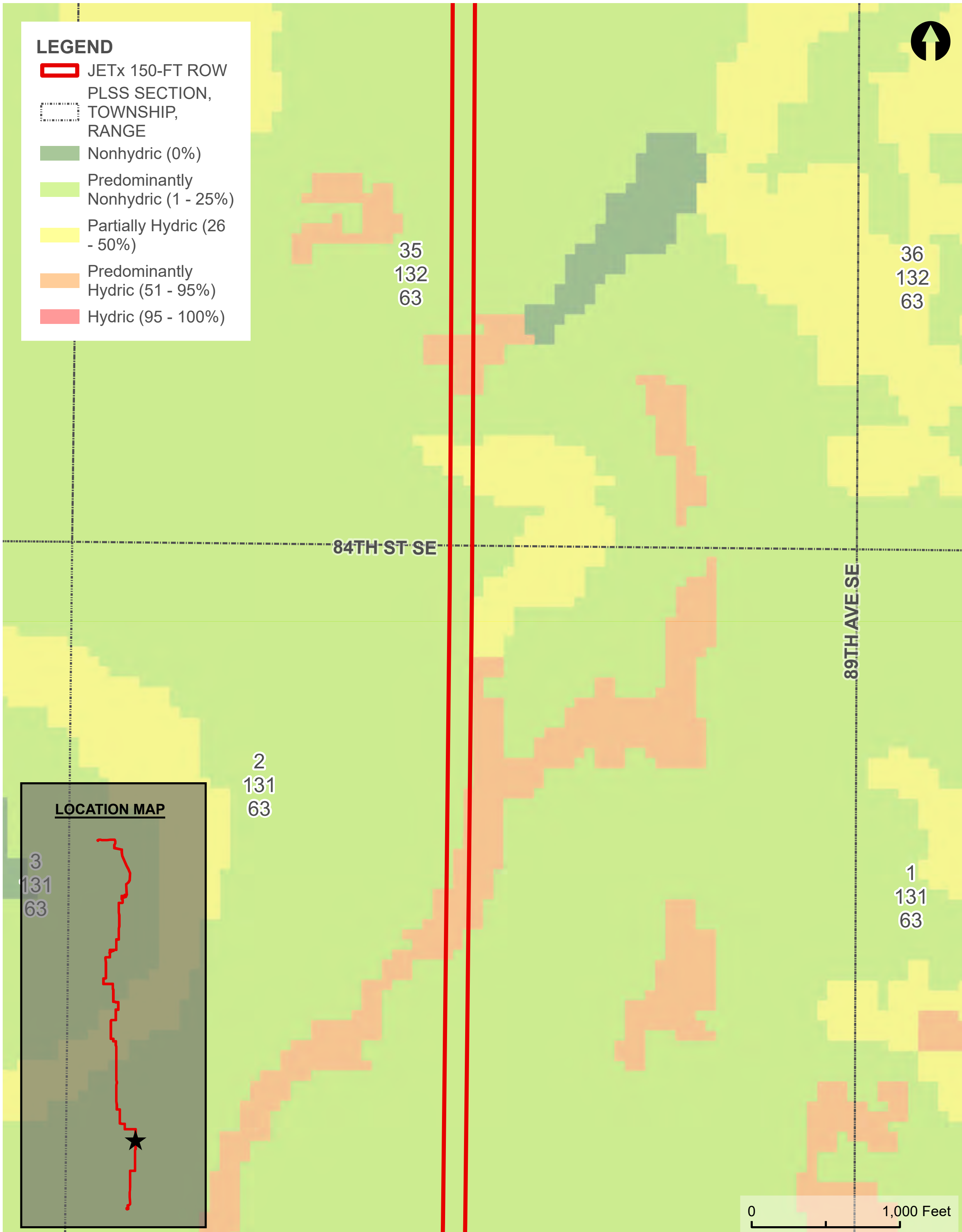
NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

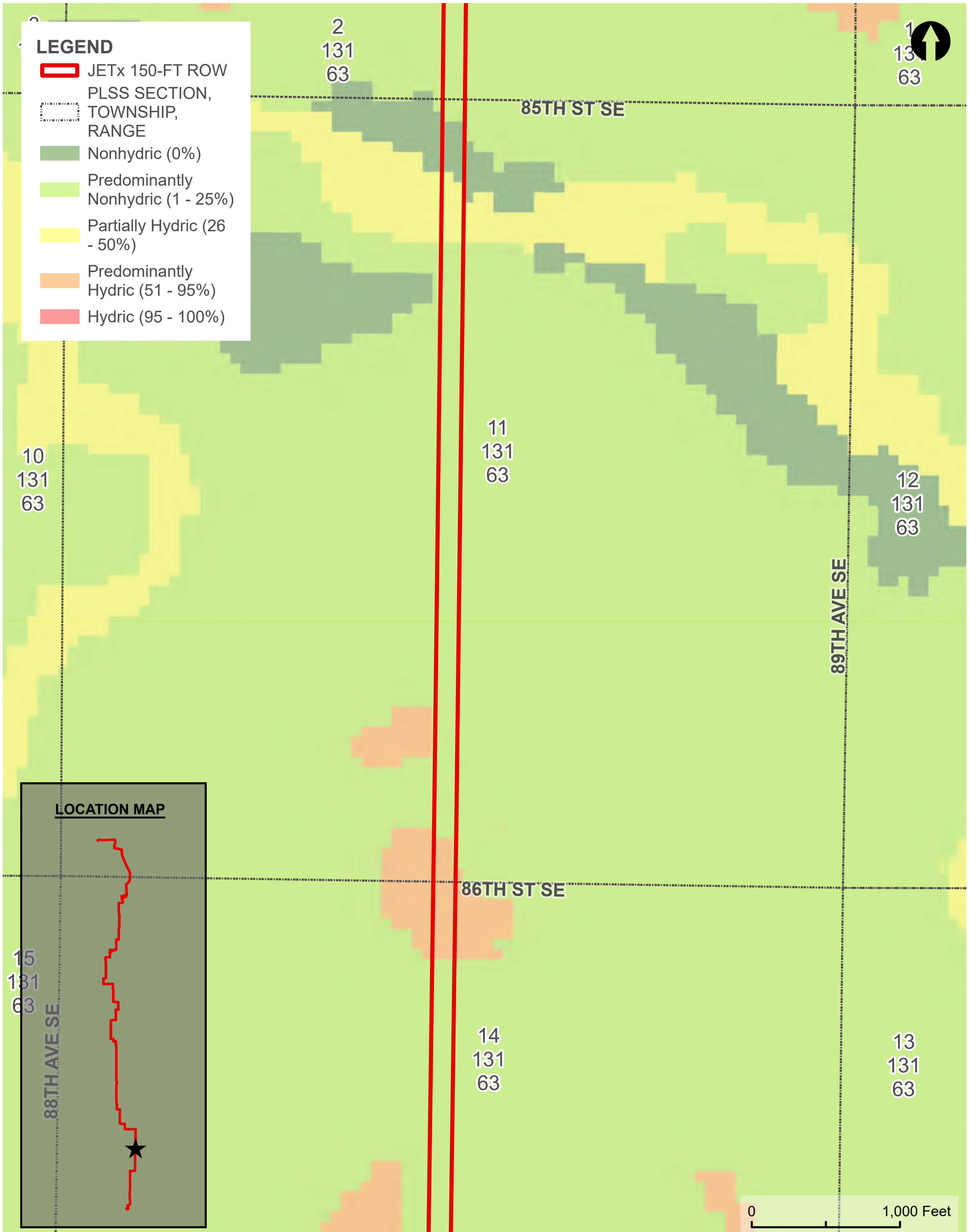
FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

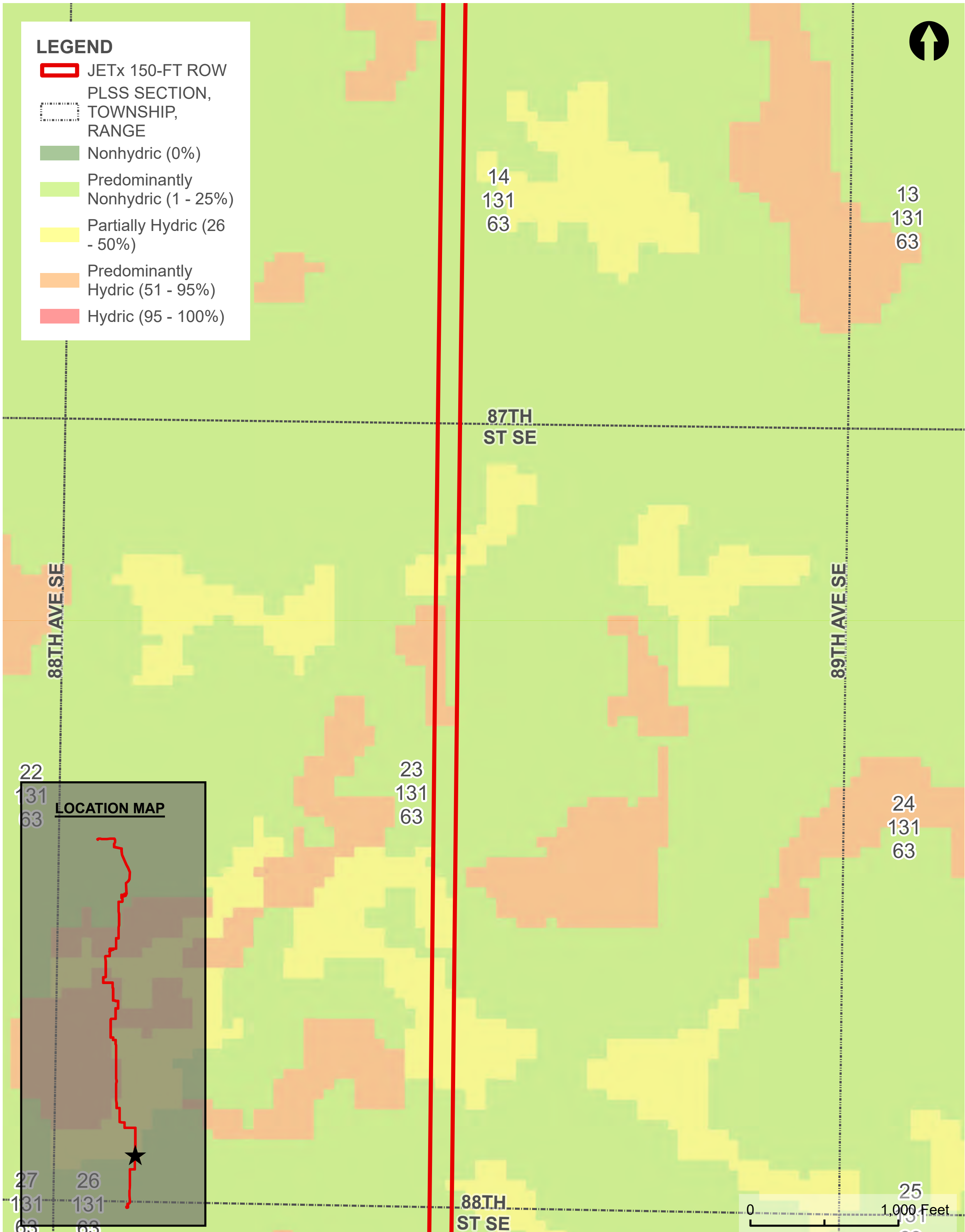


JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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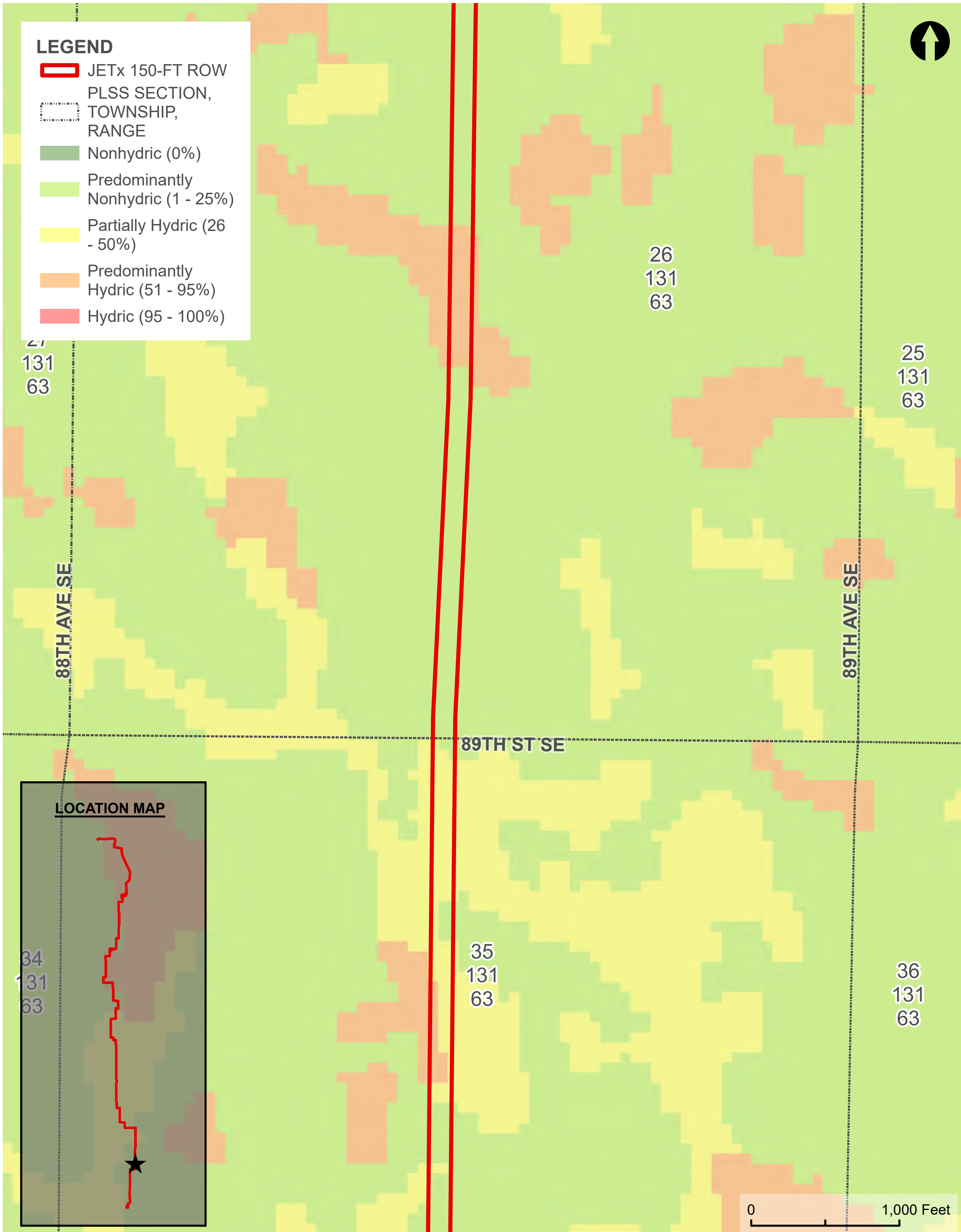
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

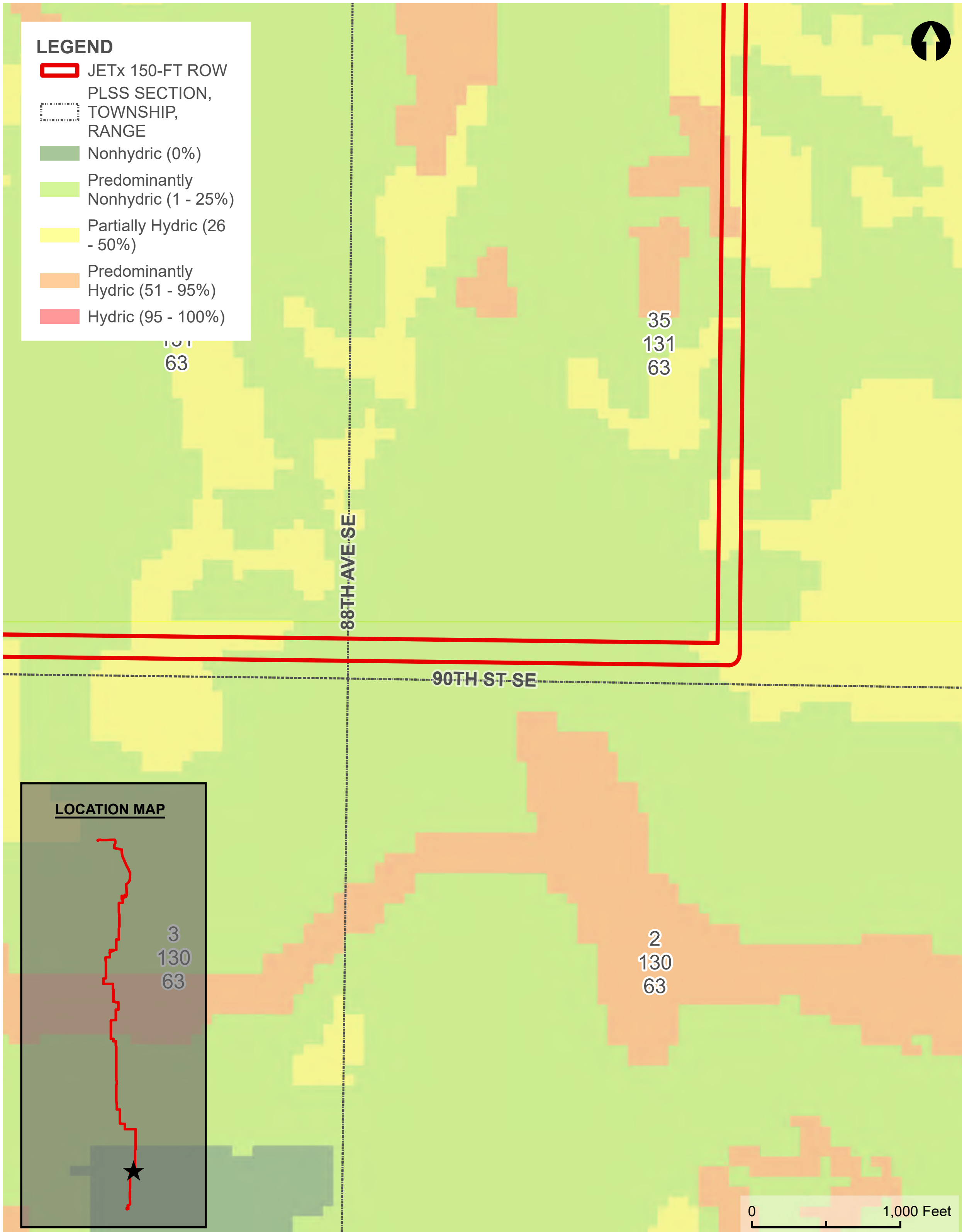


JETx Jamestown to Ellendale

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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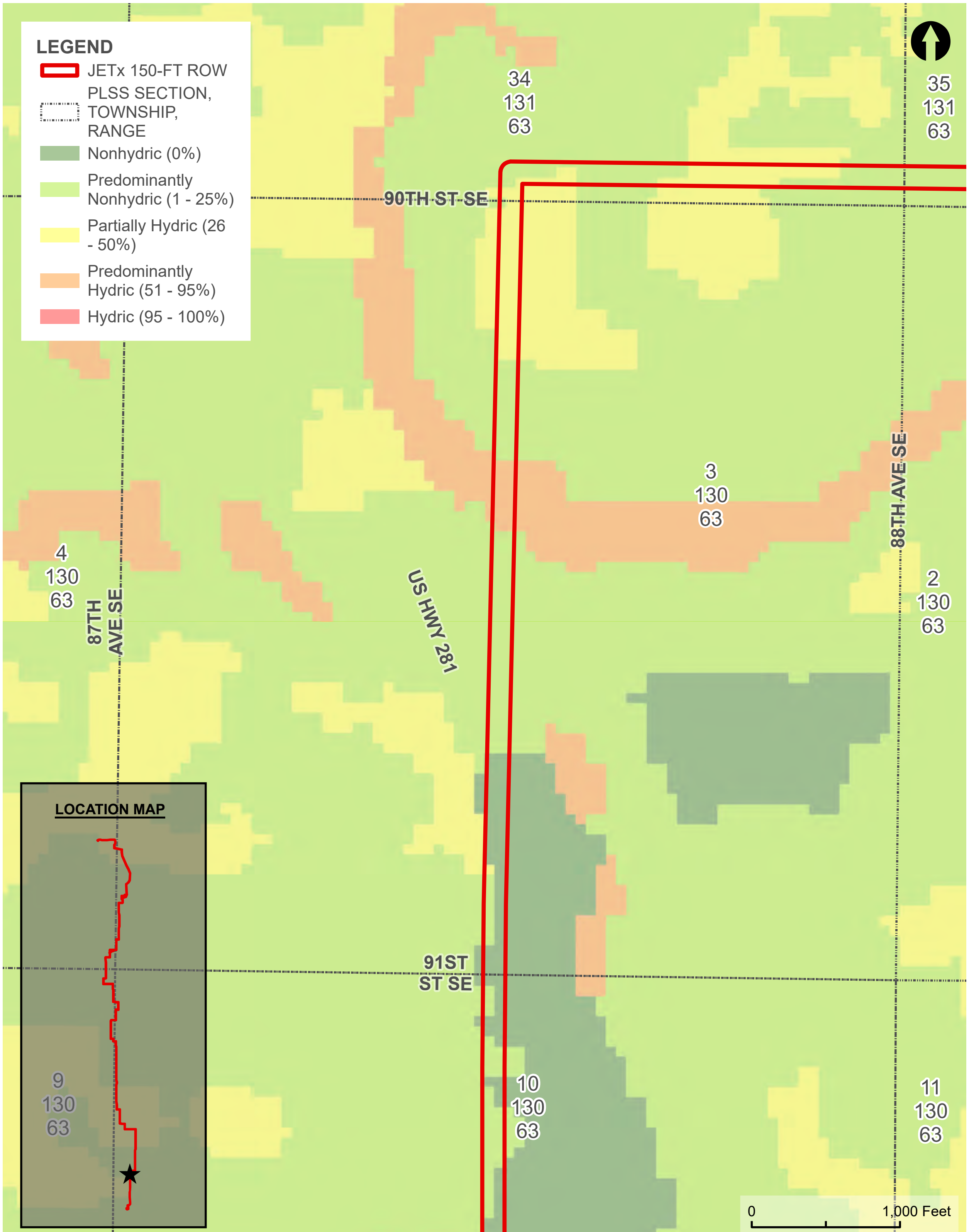
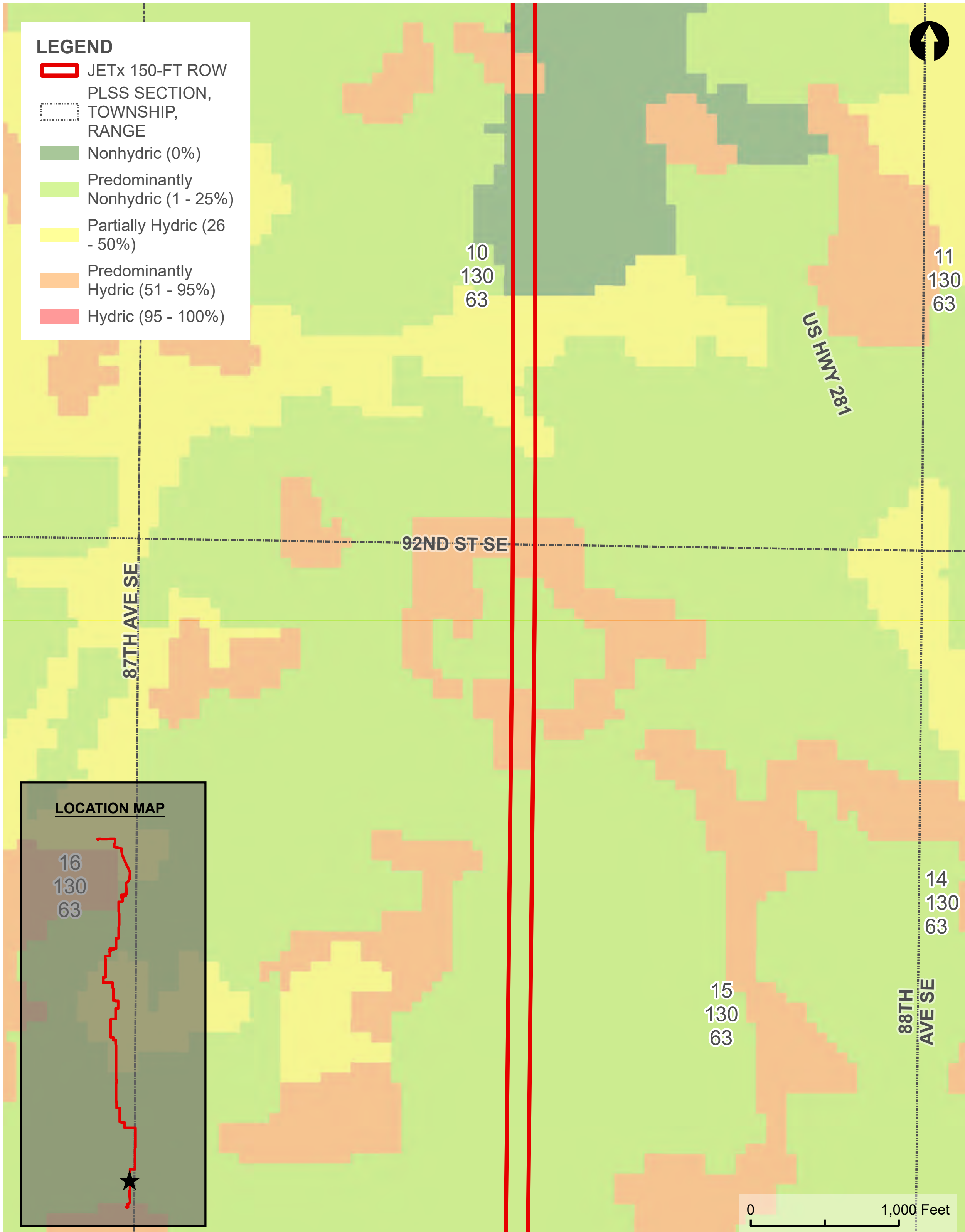
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

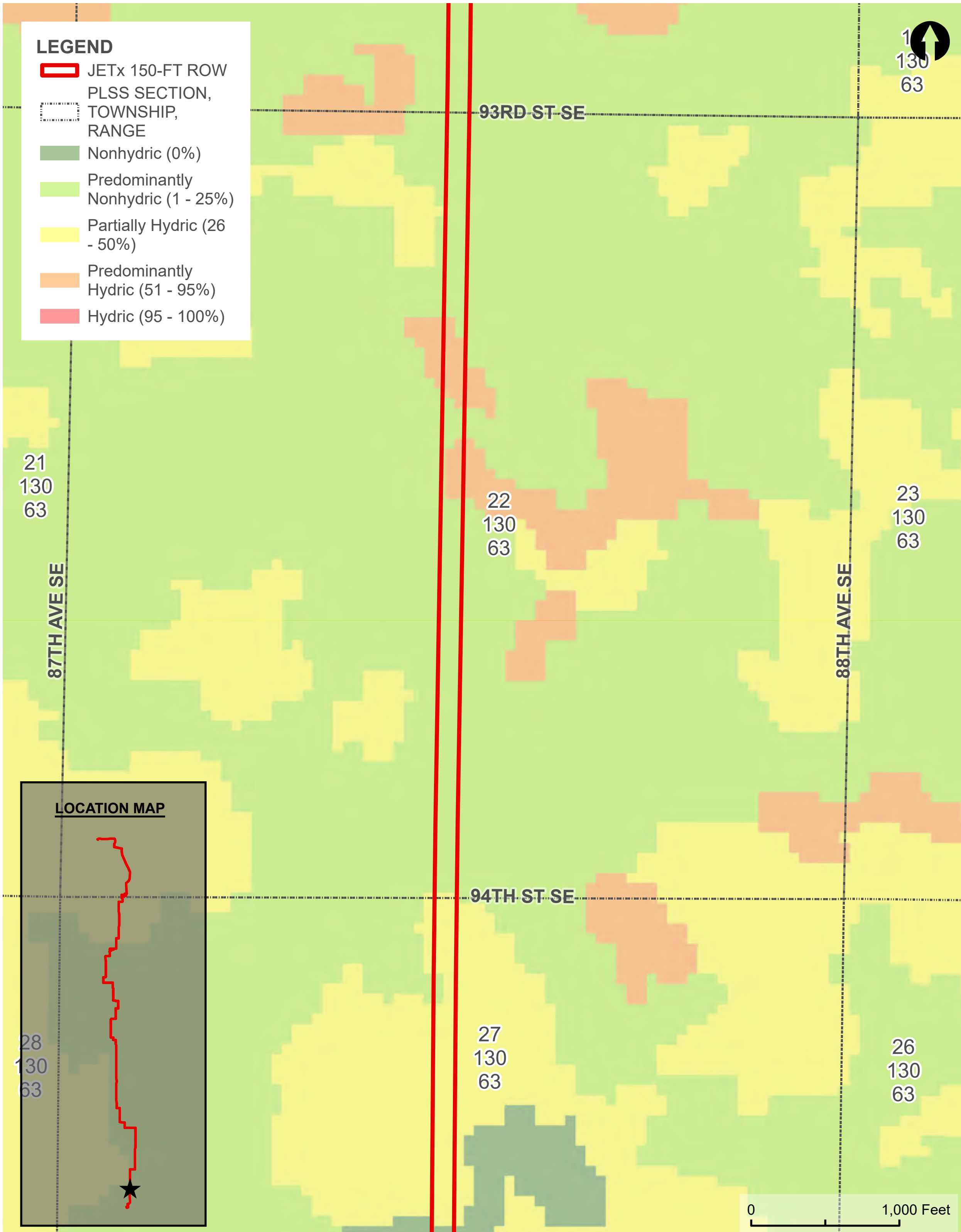
FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

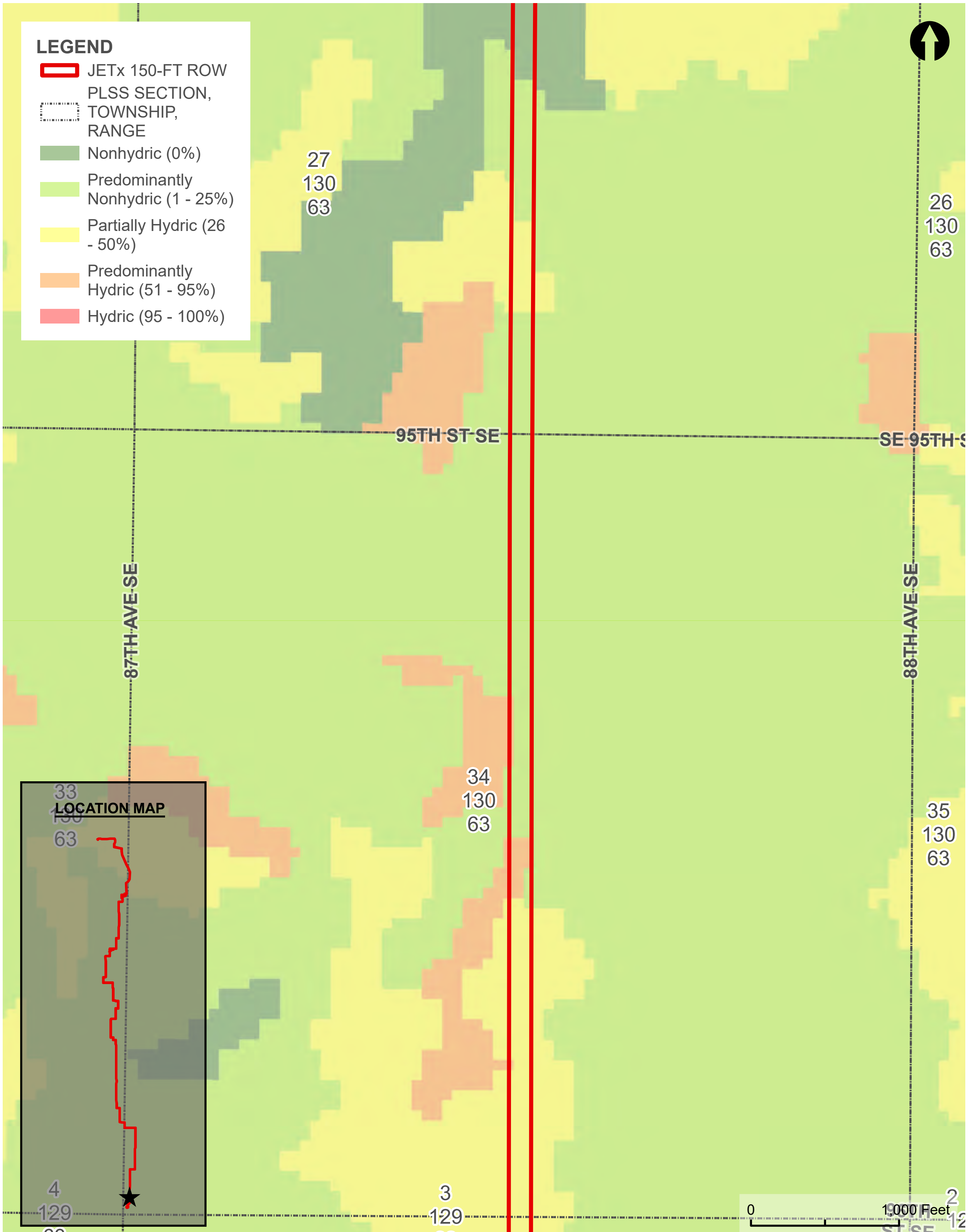
FIGURE 4

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4



NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

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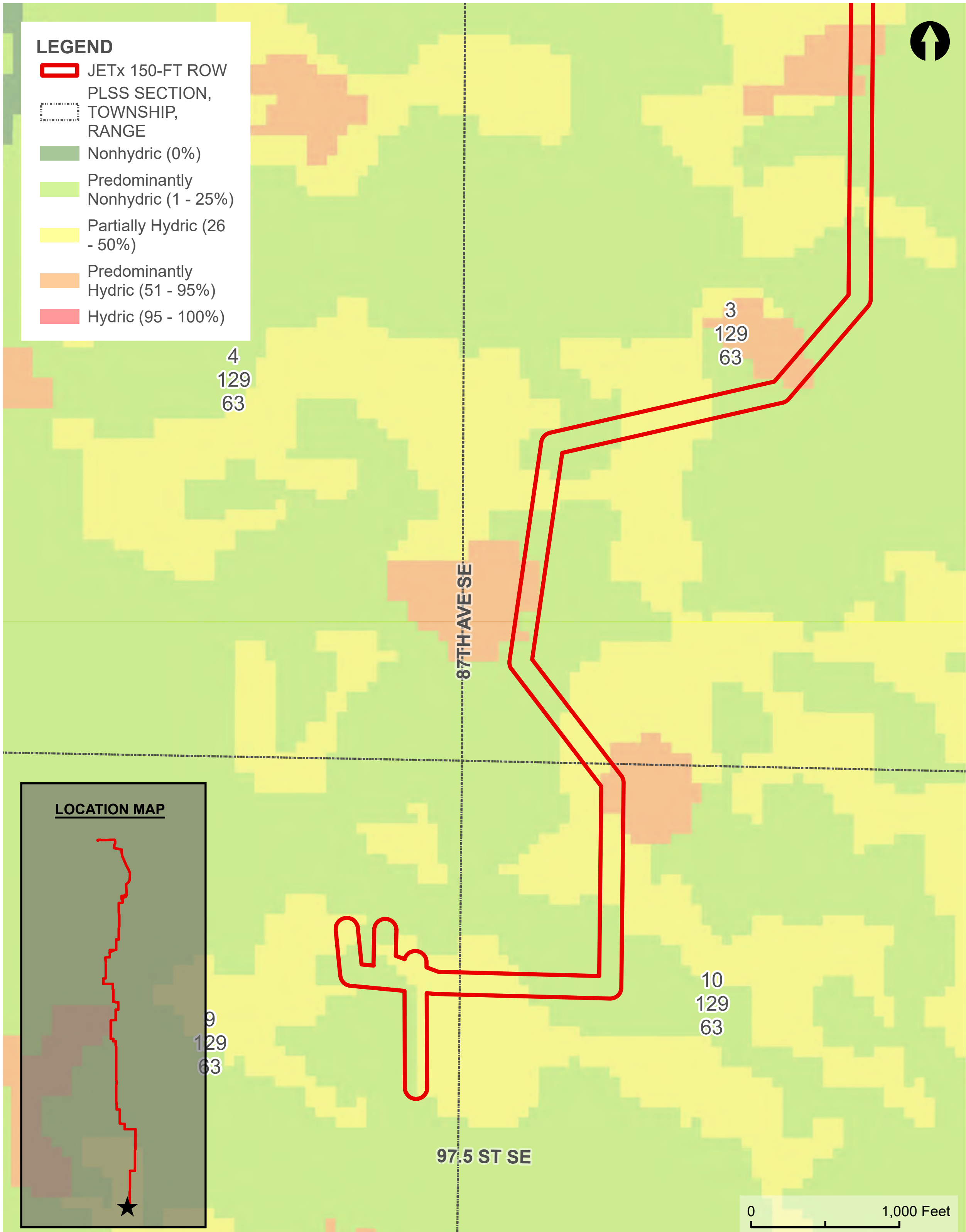
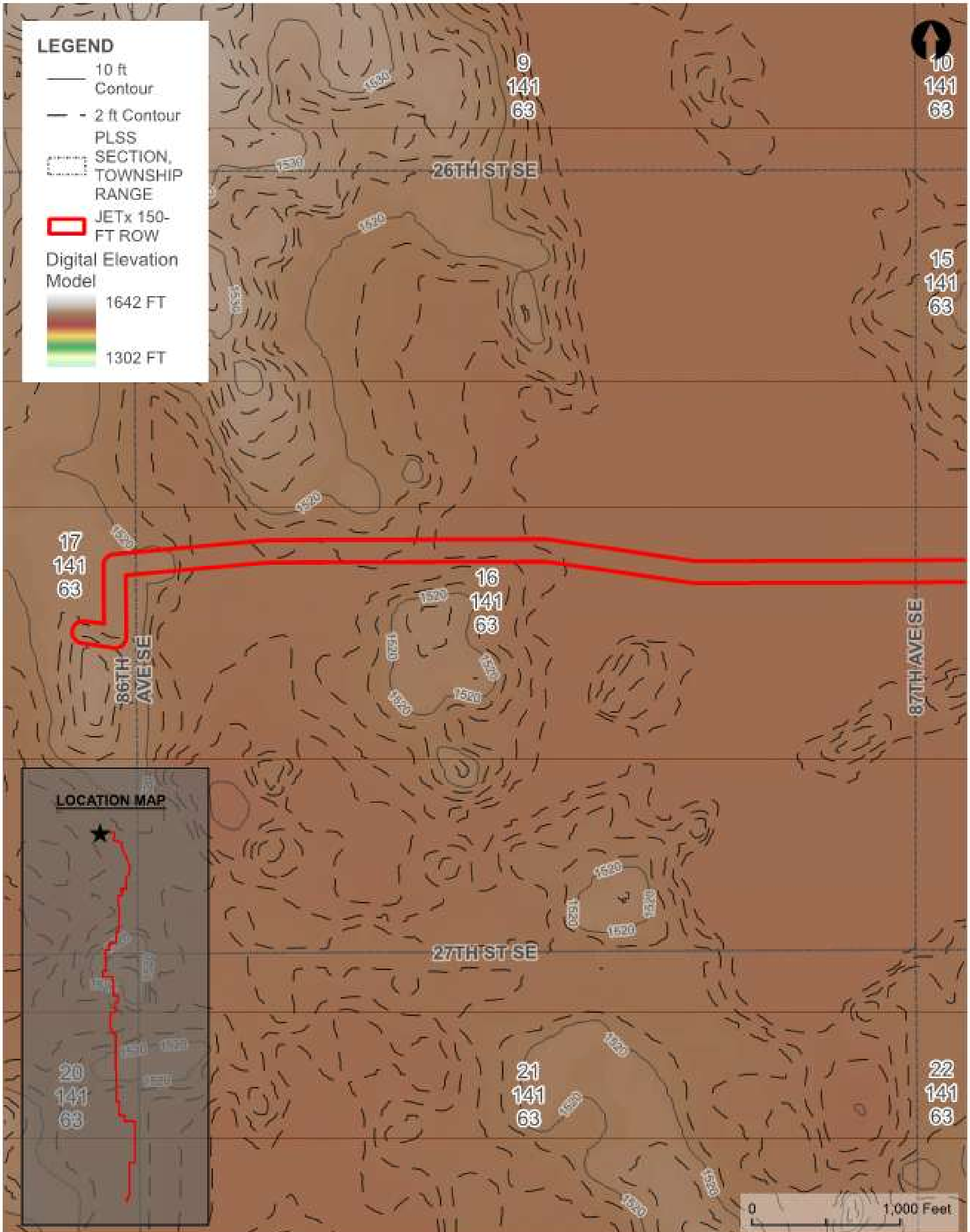


JETx

NATURAL RESOURCES CONSERVATION SERVICE (NRCS) HYDRIC SOILS MAP

FIGURE 4

PAGE 55 OF 55



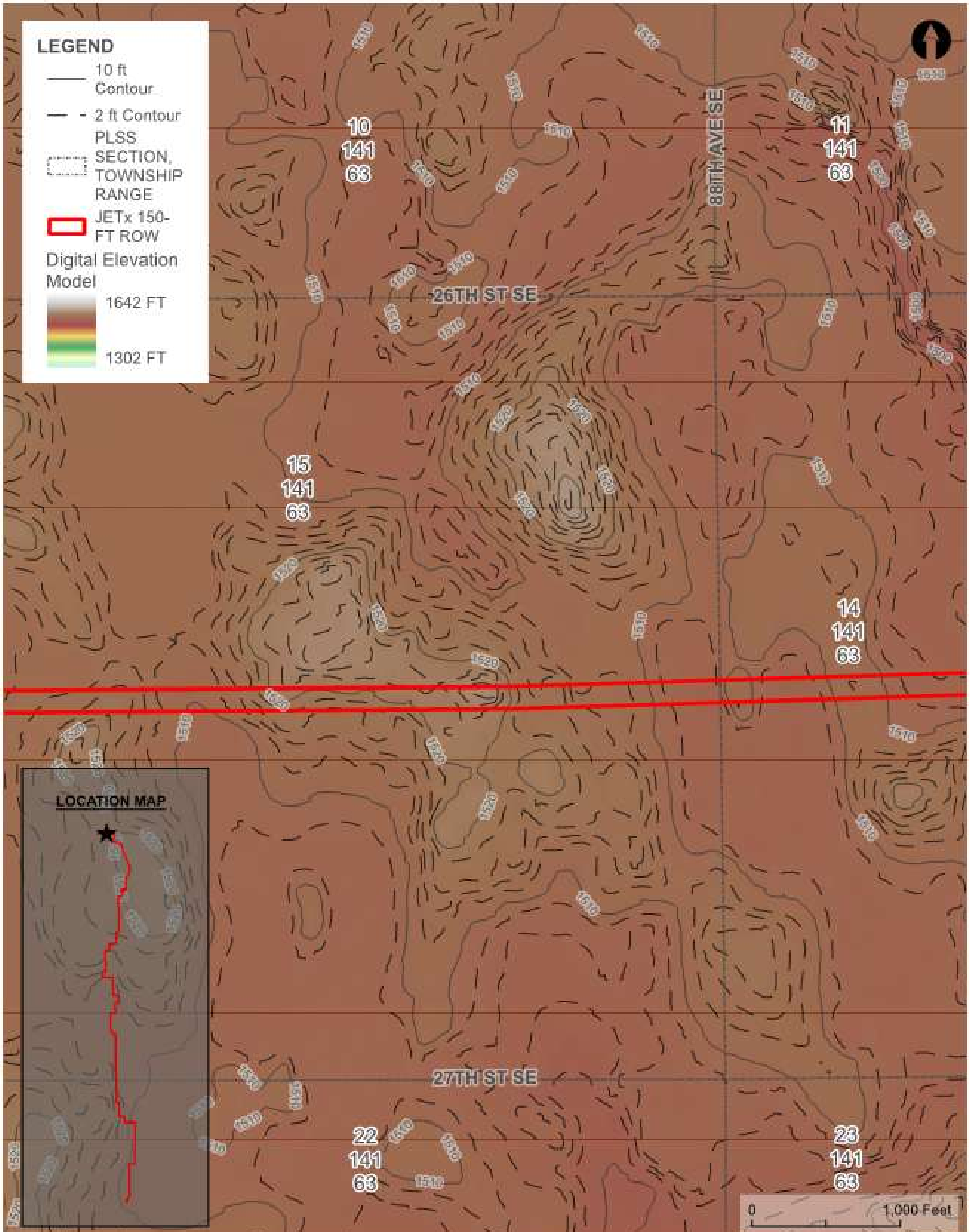
JETx

CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 1 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

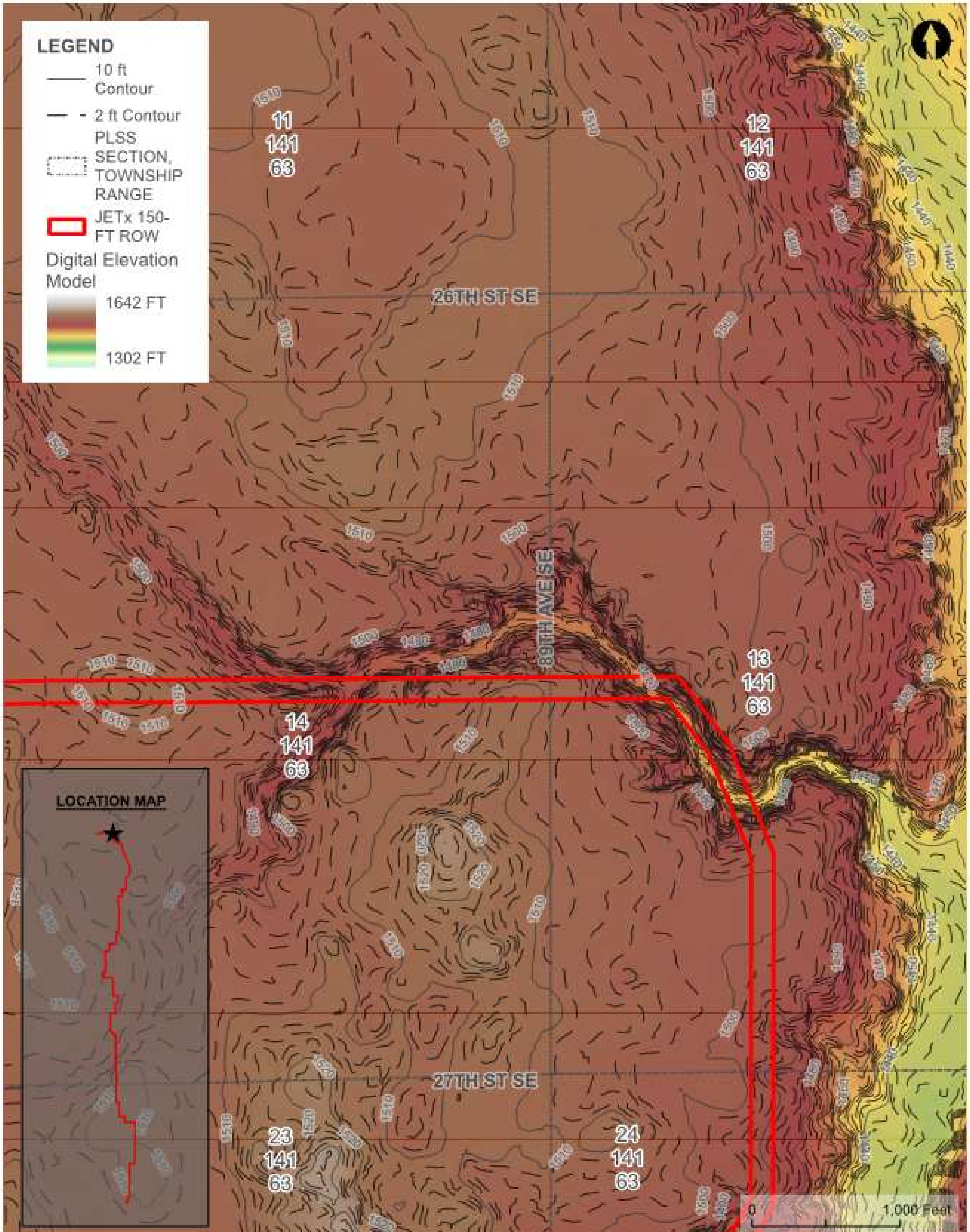


CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 2 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



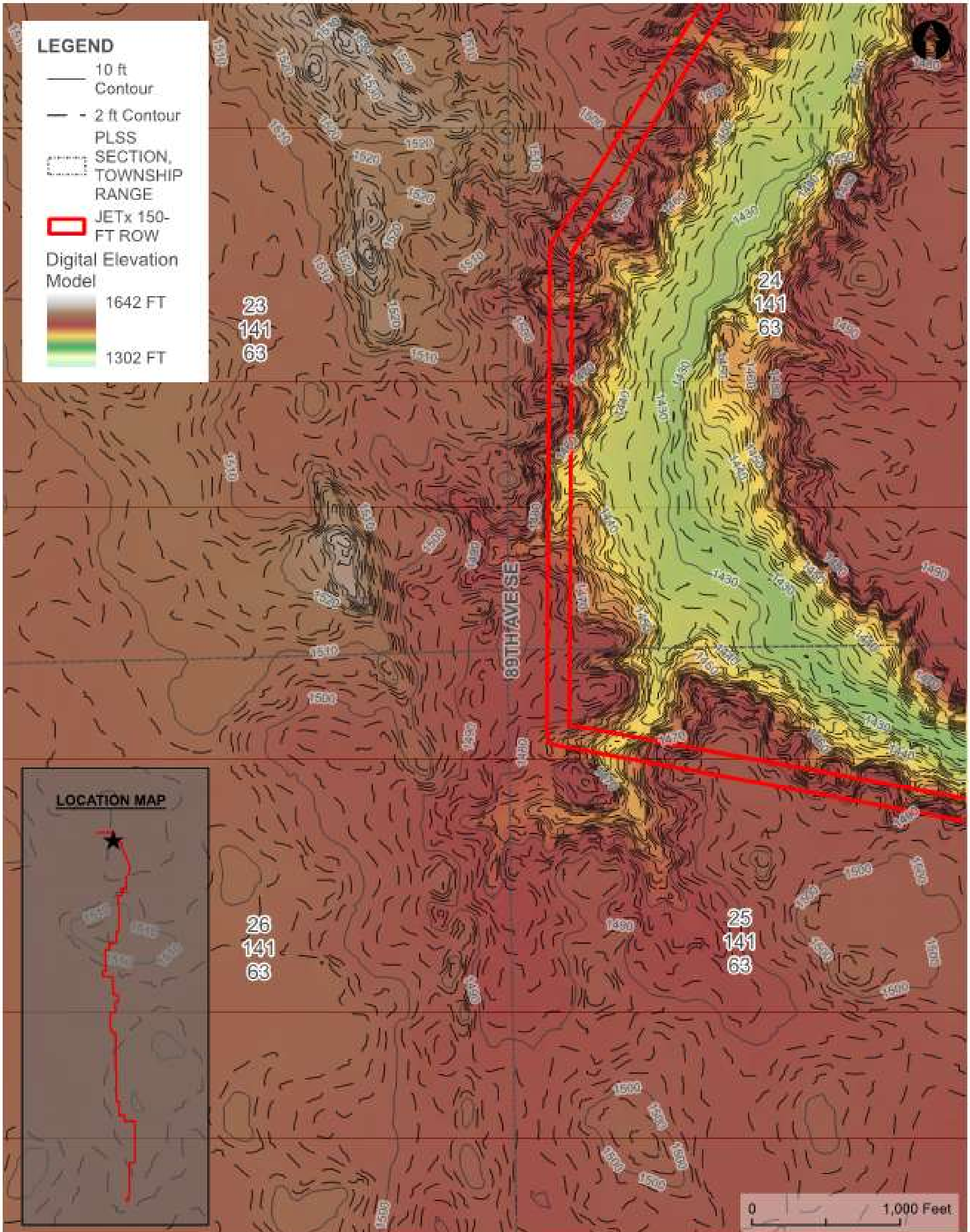
JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 3 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



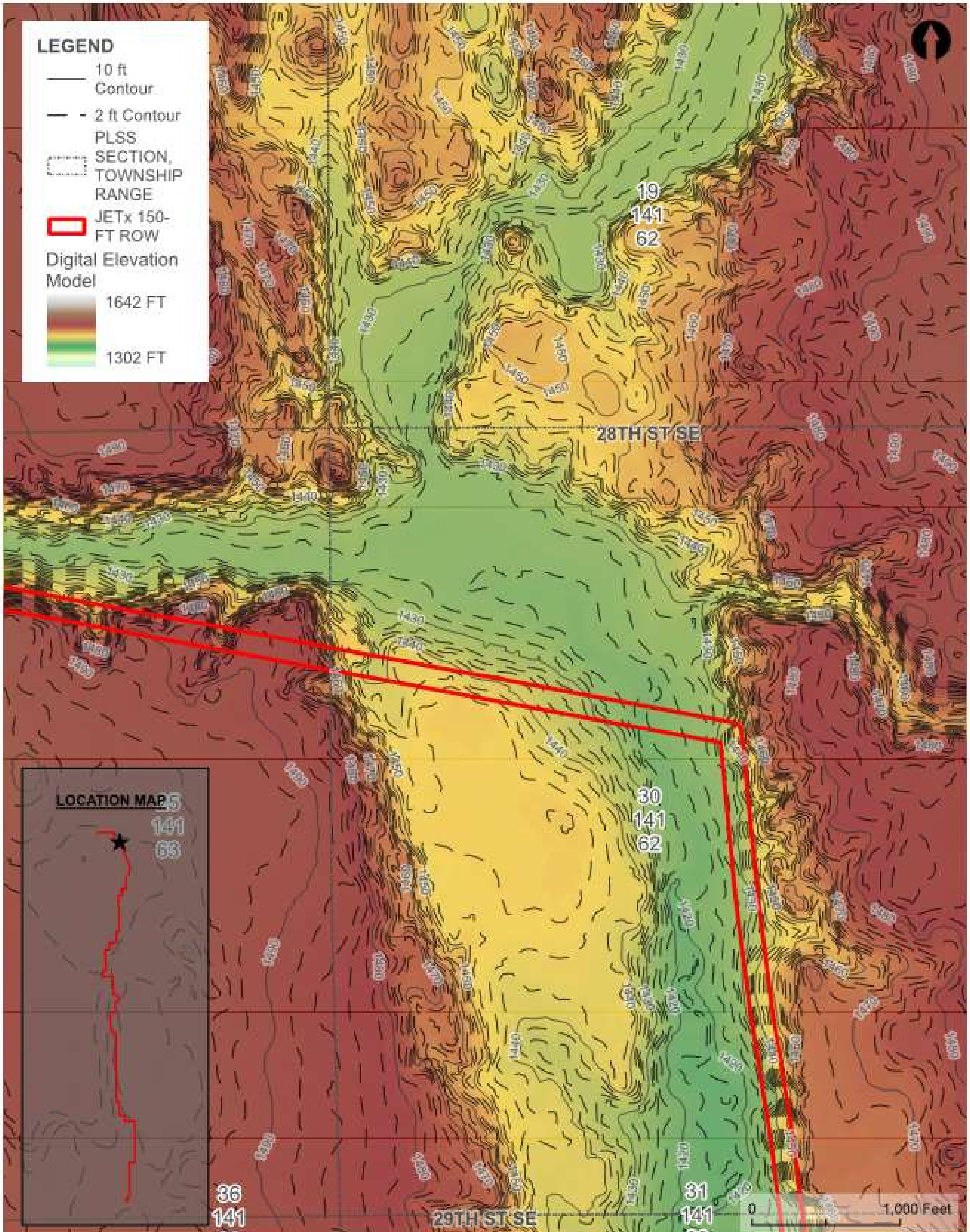
JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 4 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

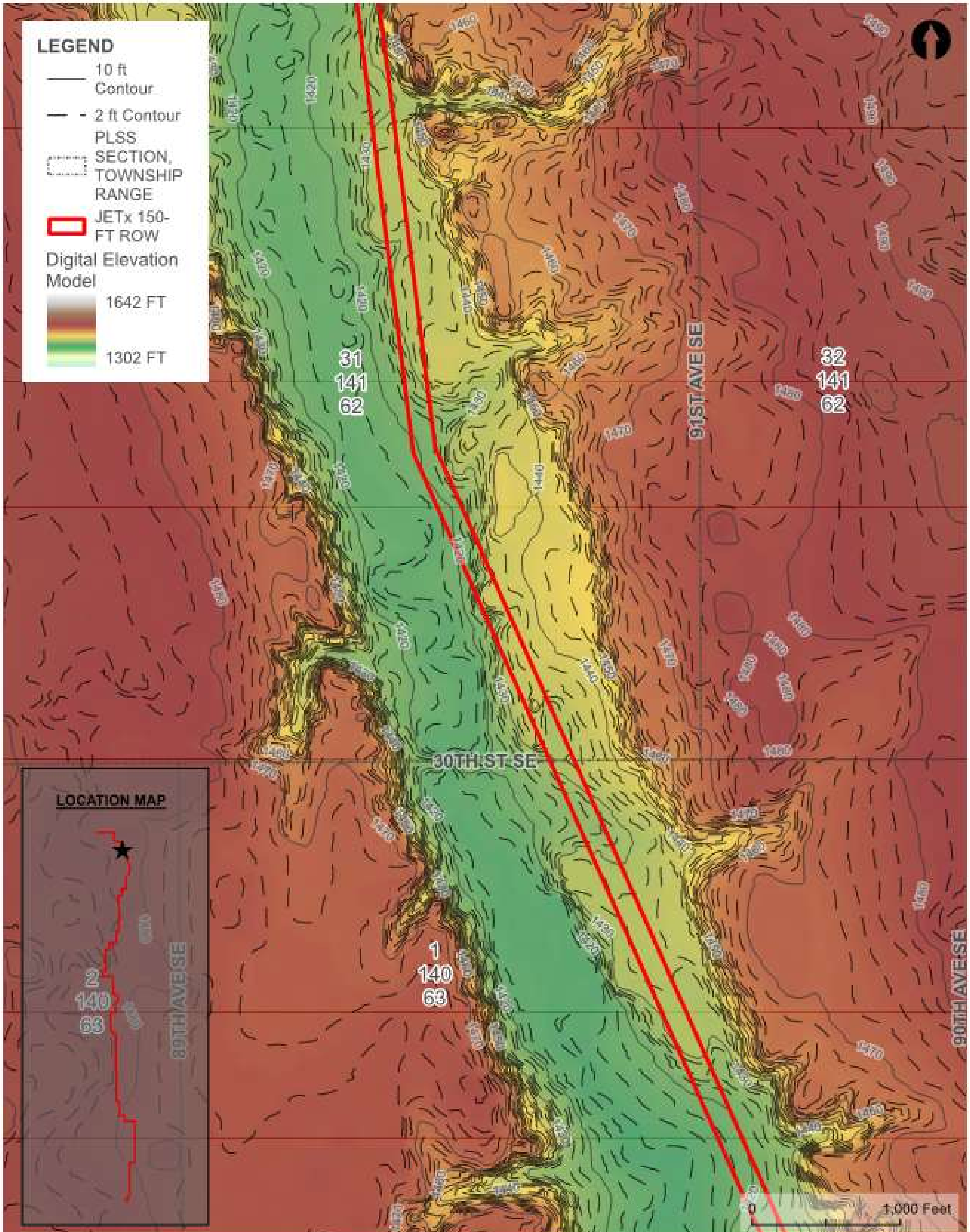


CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 5 OF 55

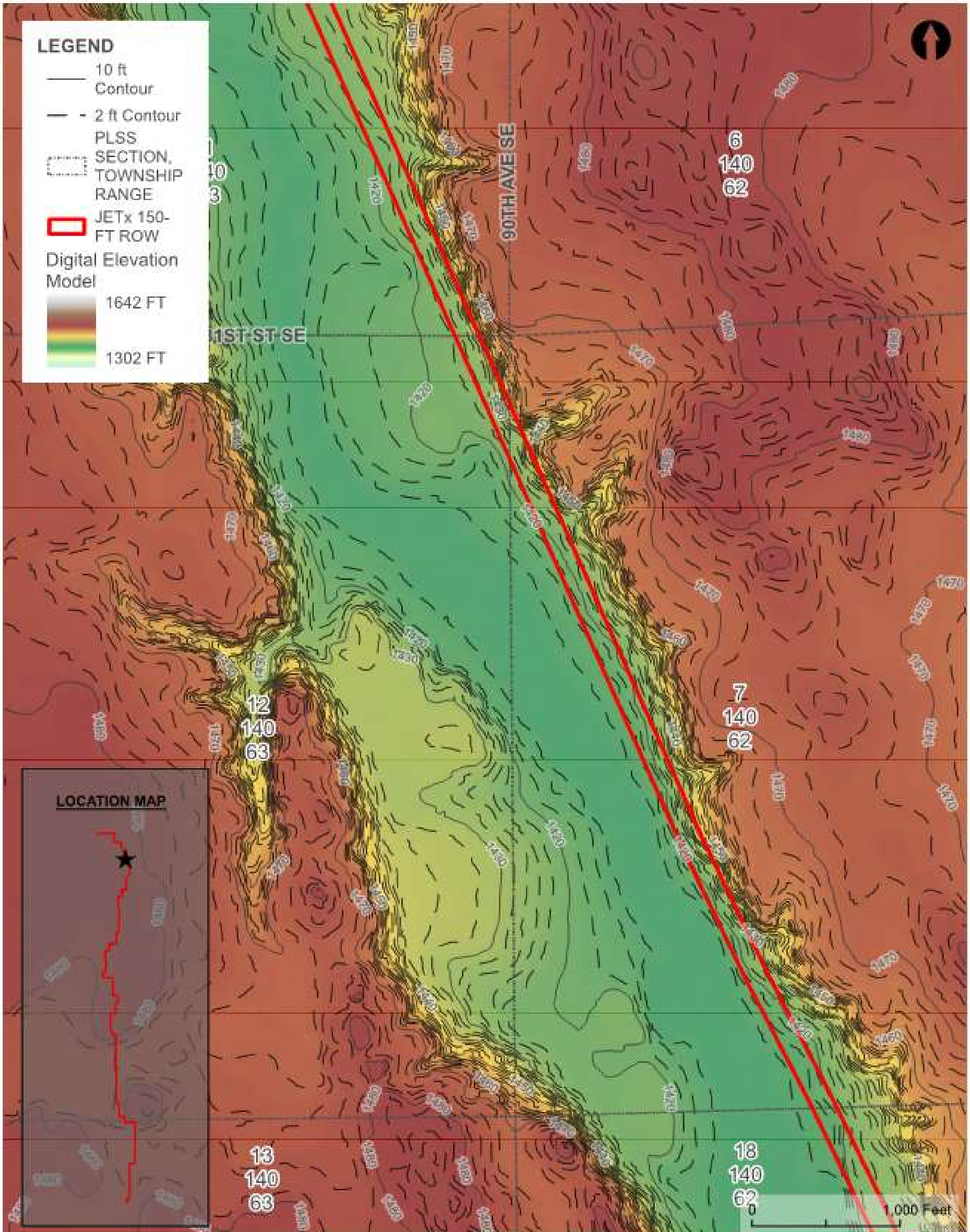
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



CONTOUR/TERRAIN MAP

FIGURE 5

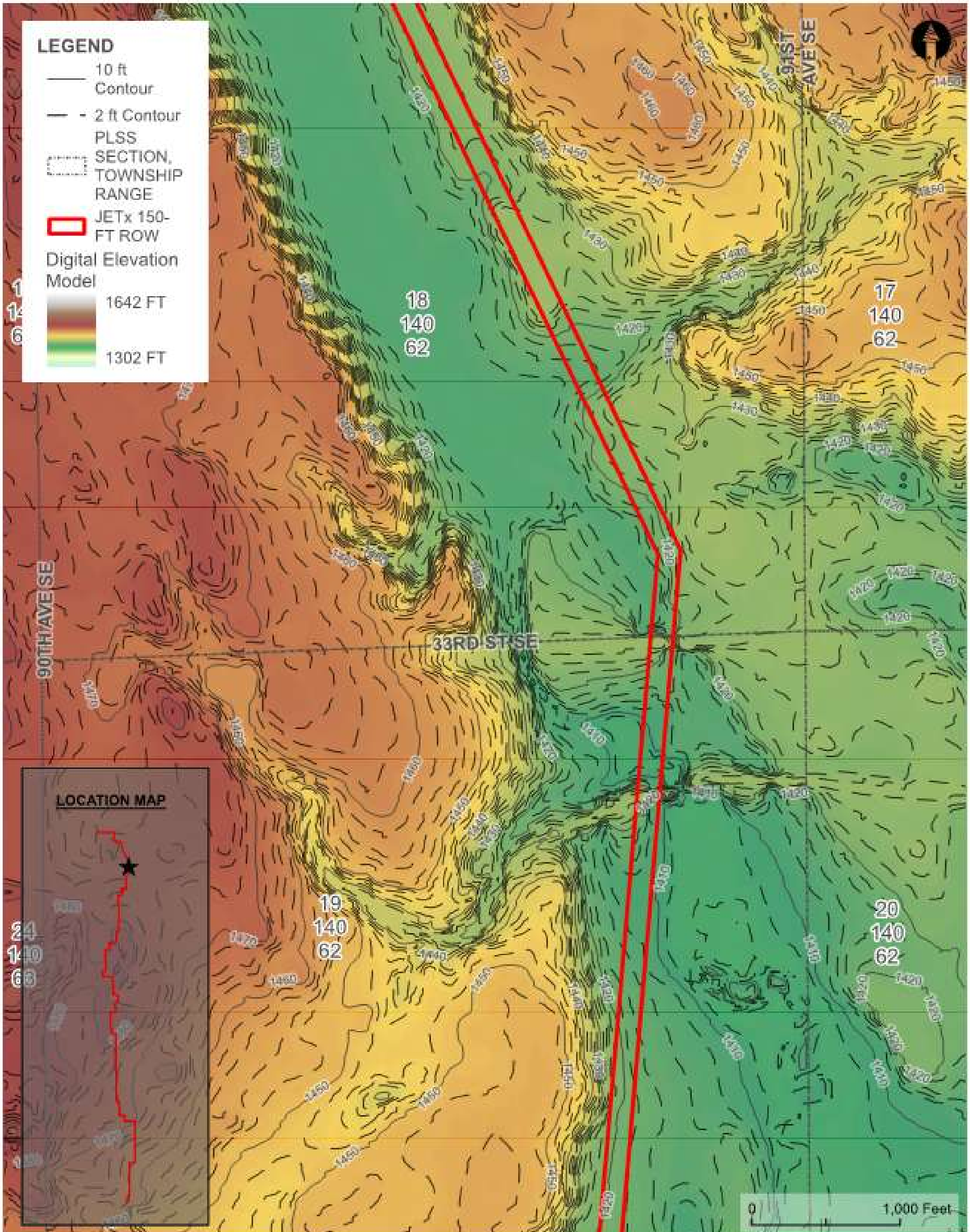
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

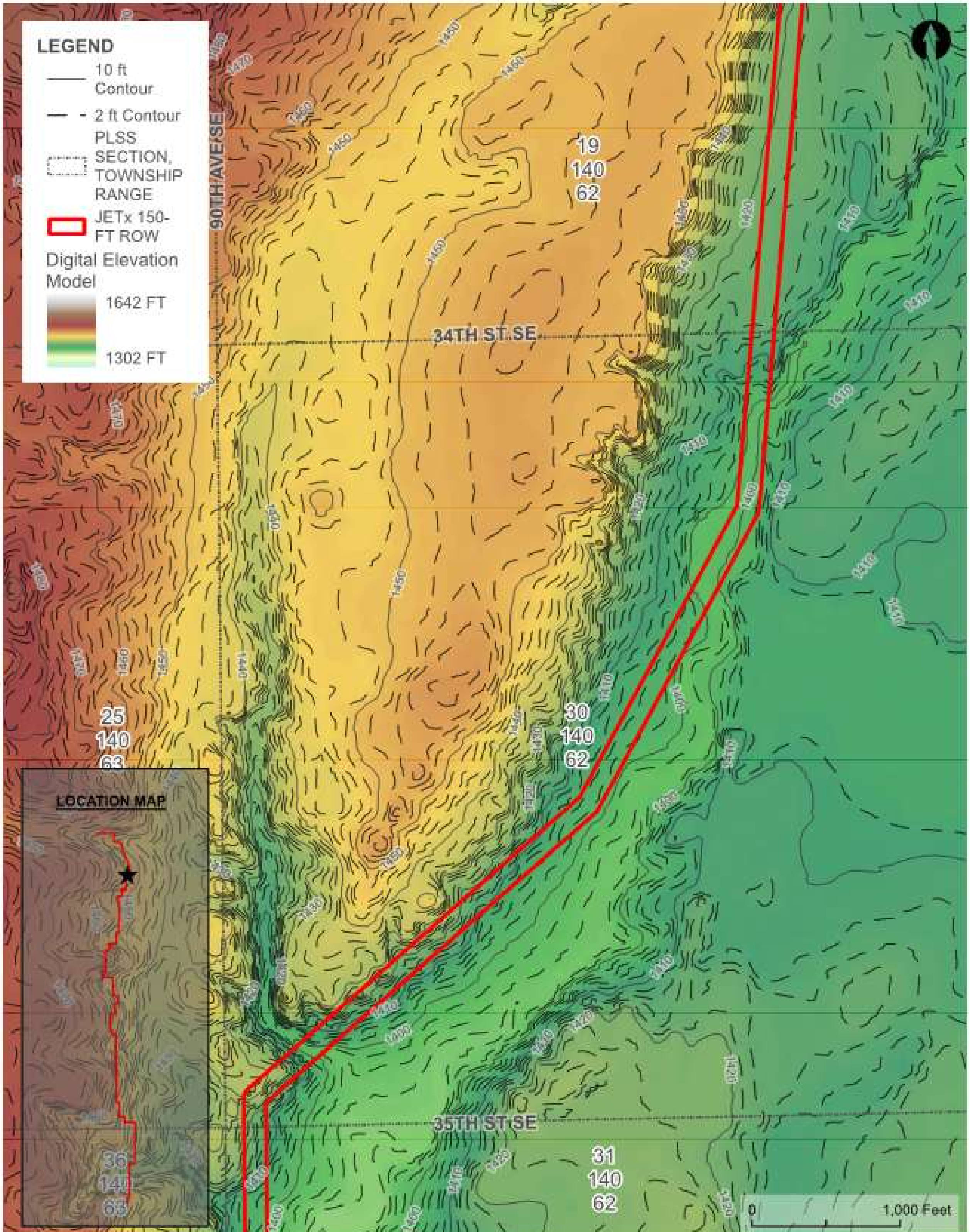
FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

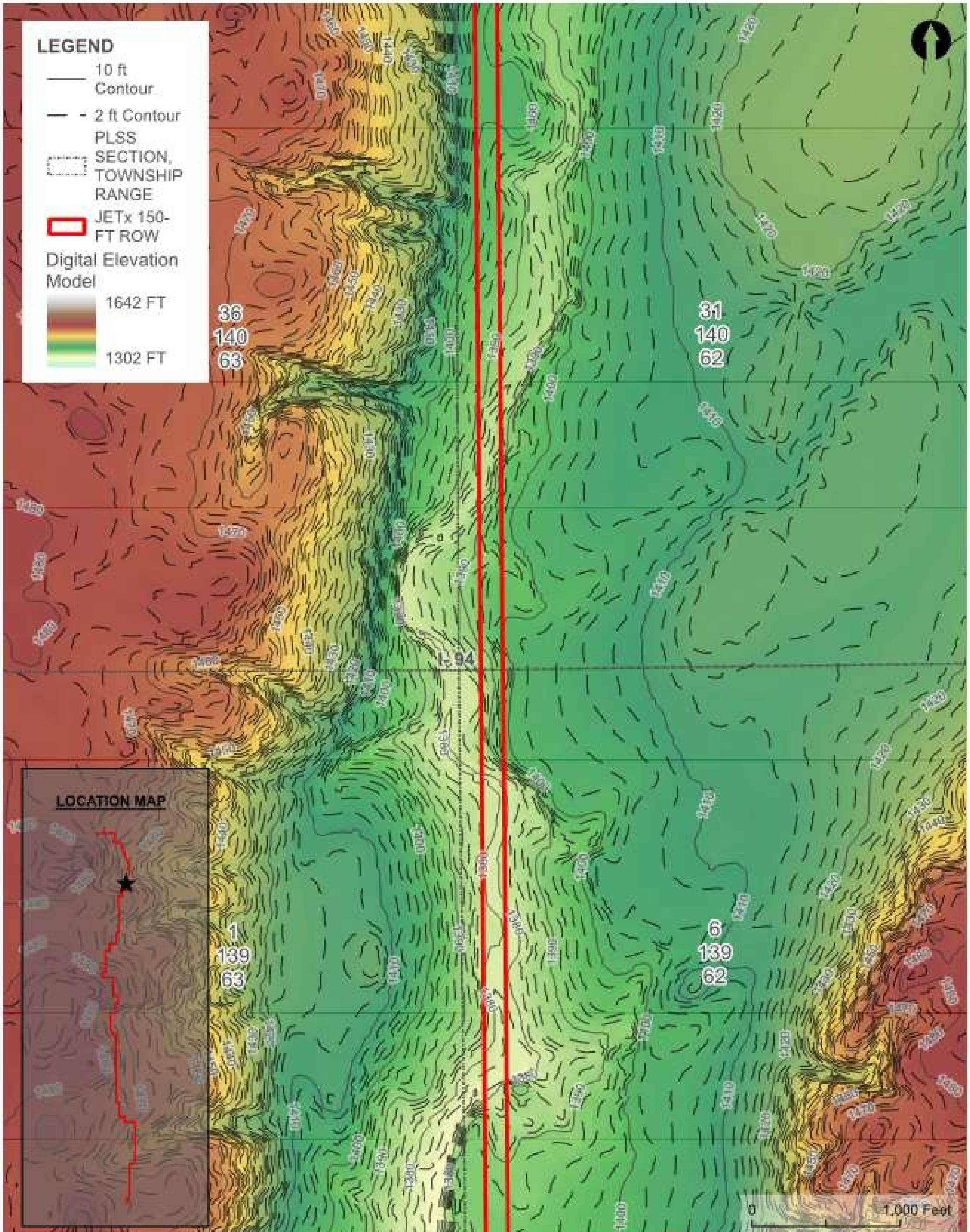
FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

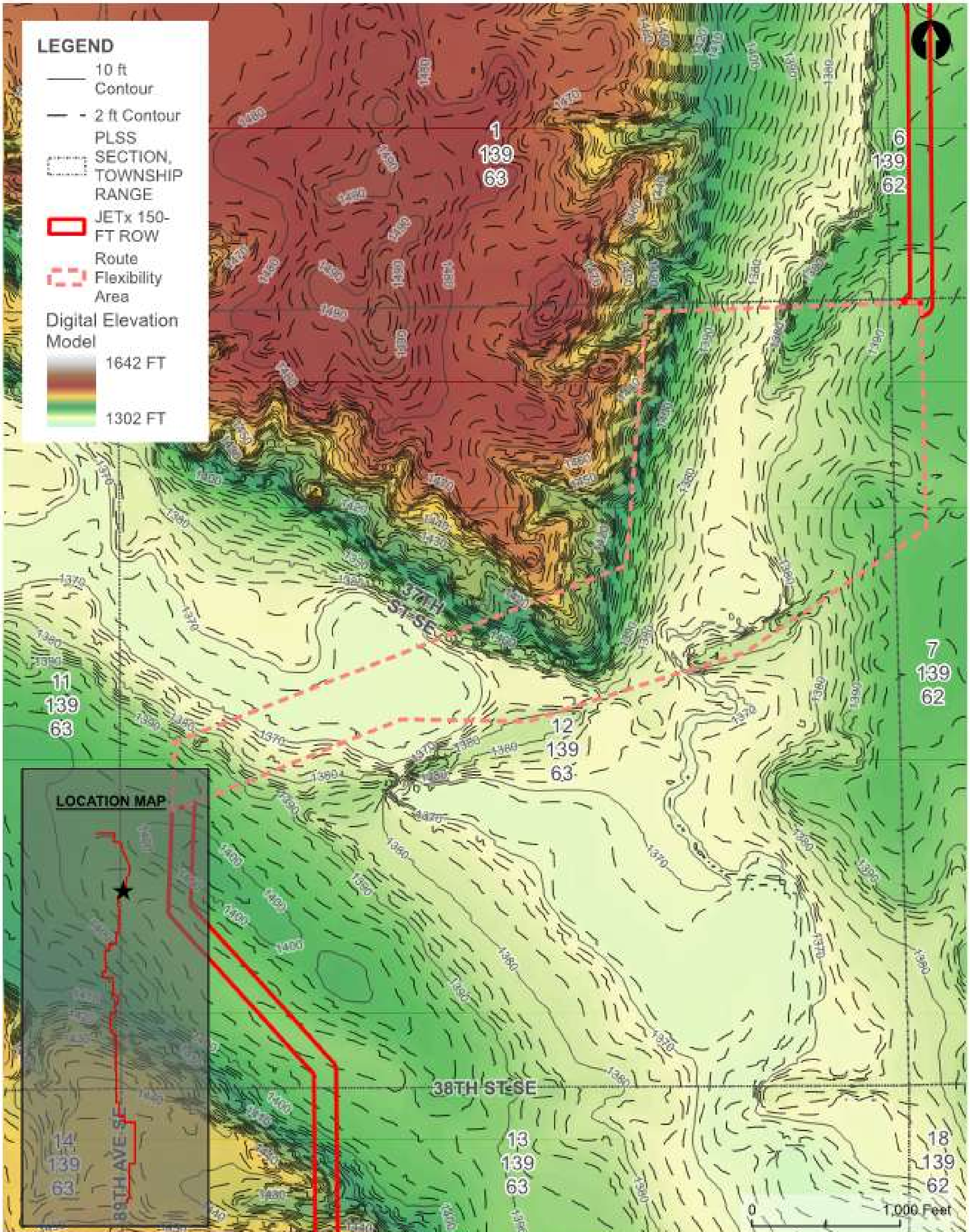
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

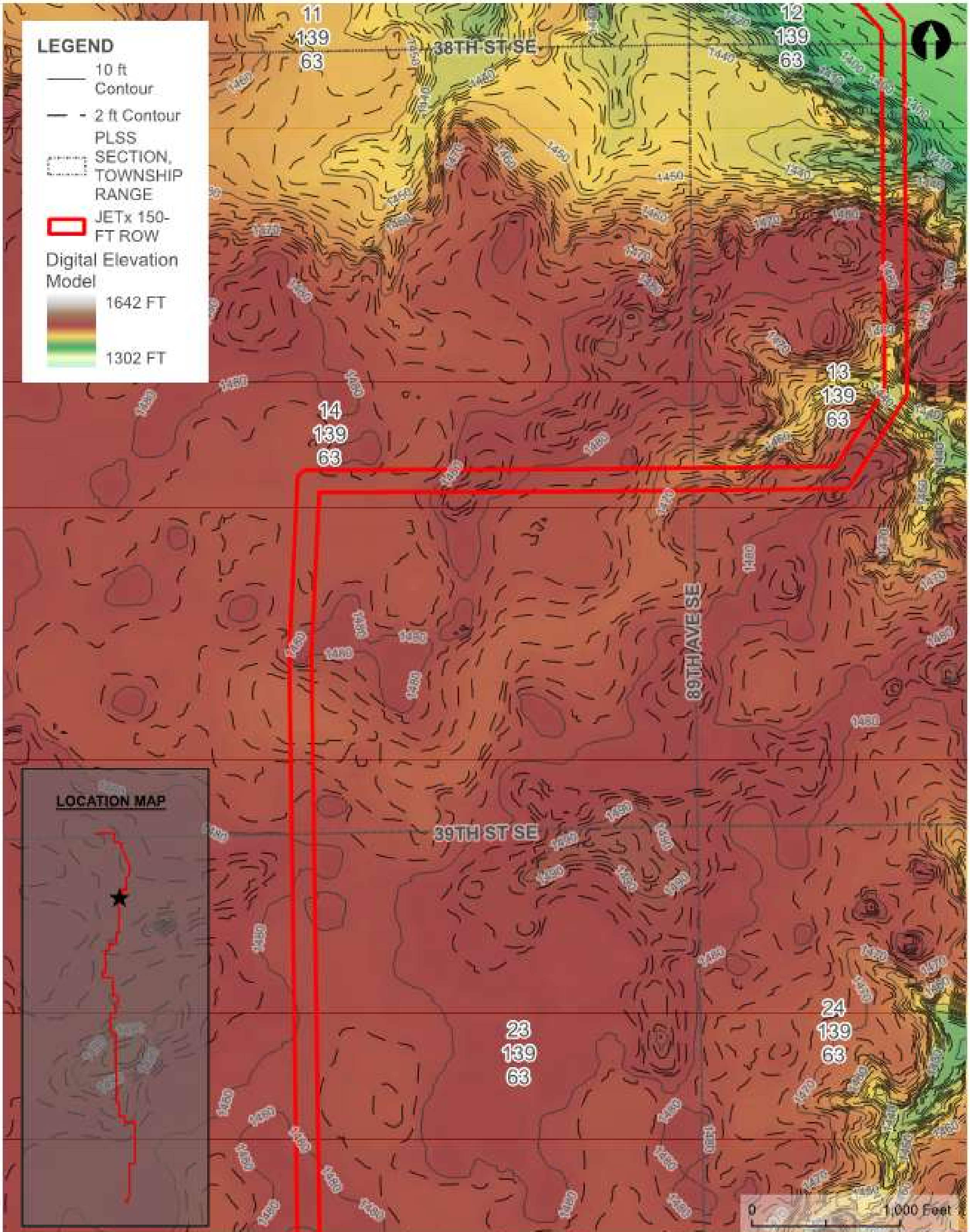
FIGURE 5



JETx

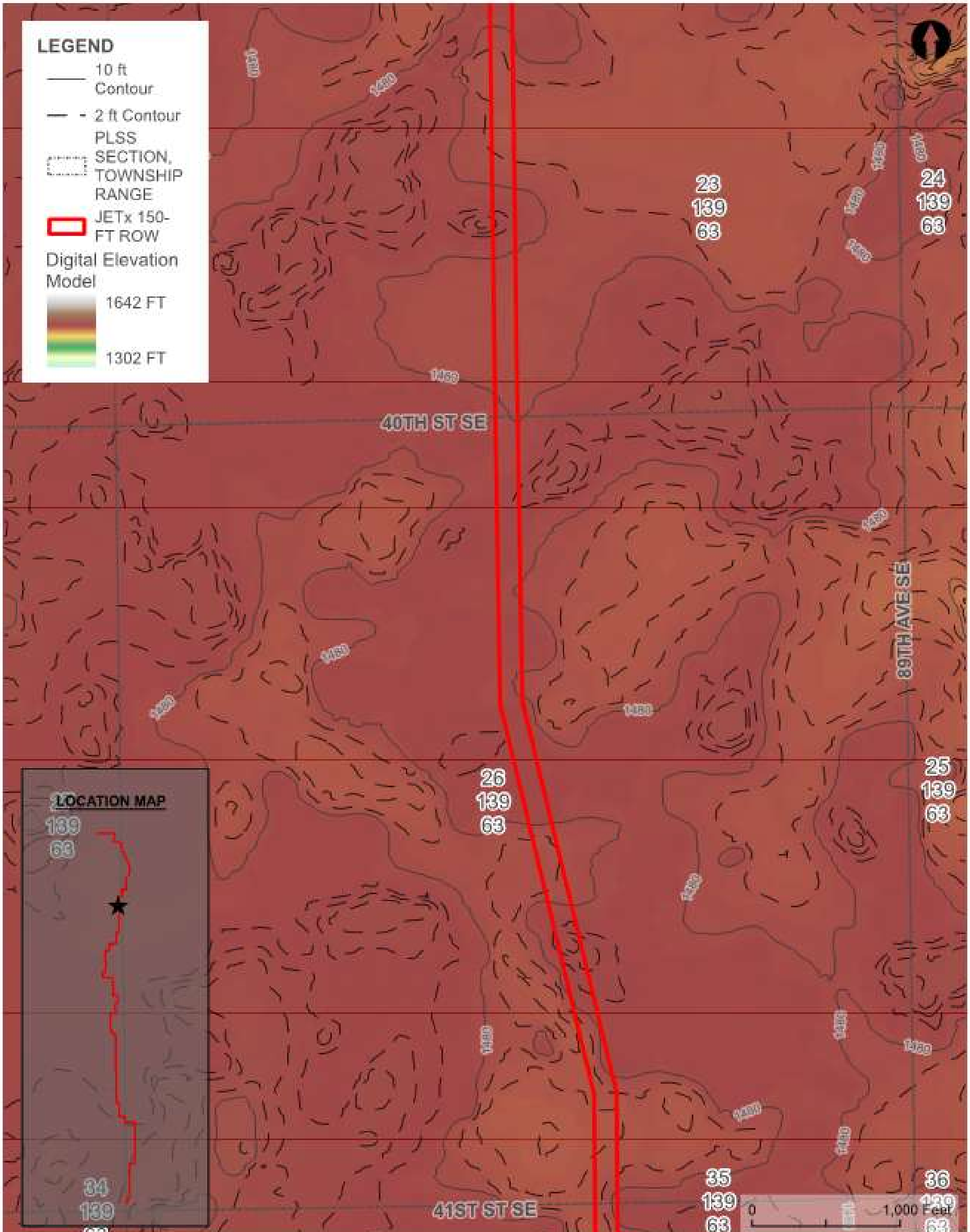
CONTOUR/TERRAIN MAP

FIGURE 5



CONTOUR/TERRAIN MAP

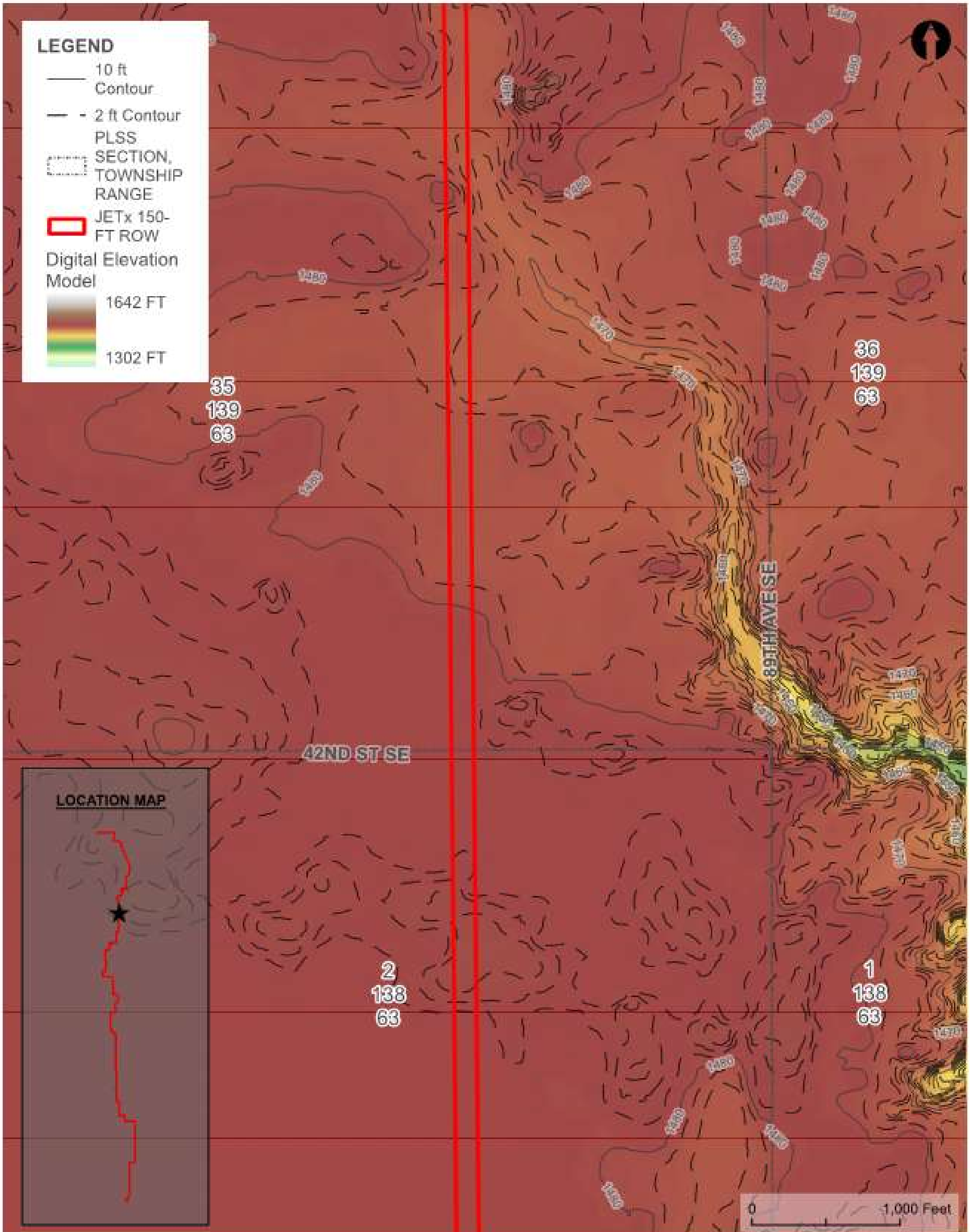
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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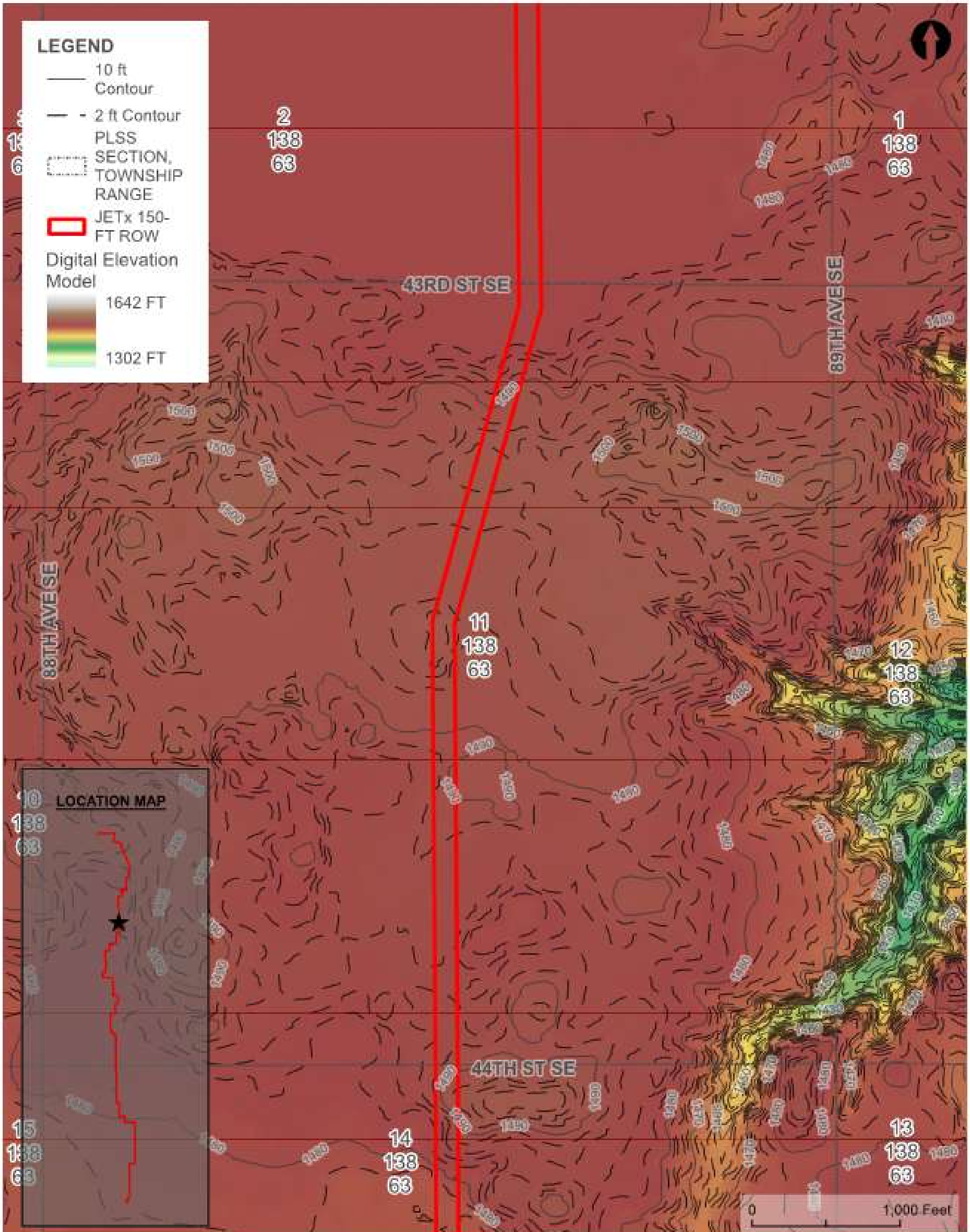
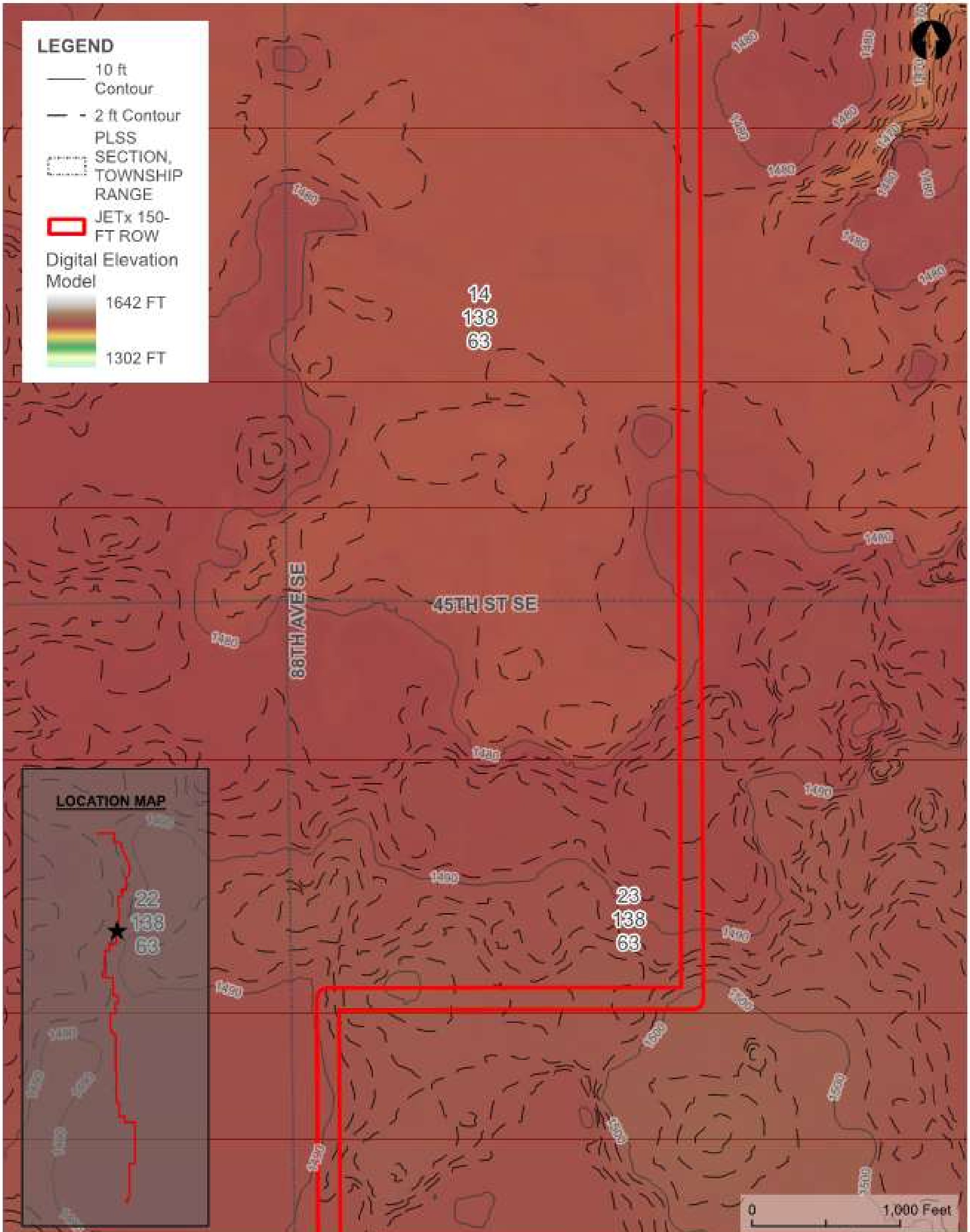
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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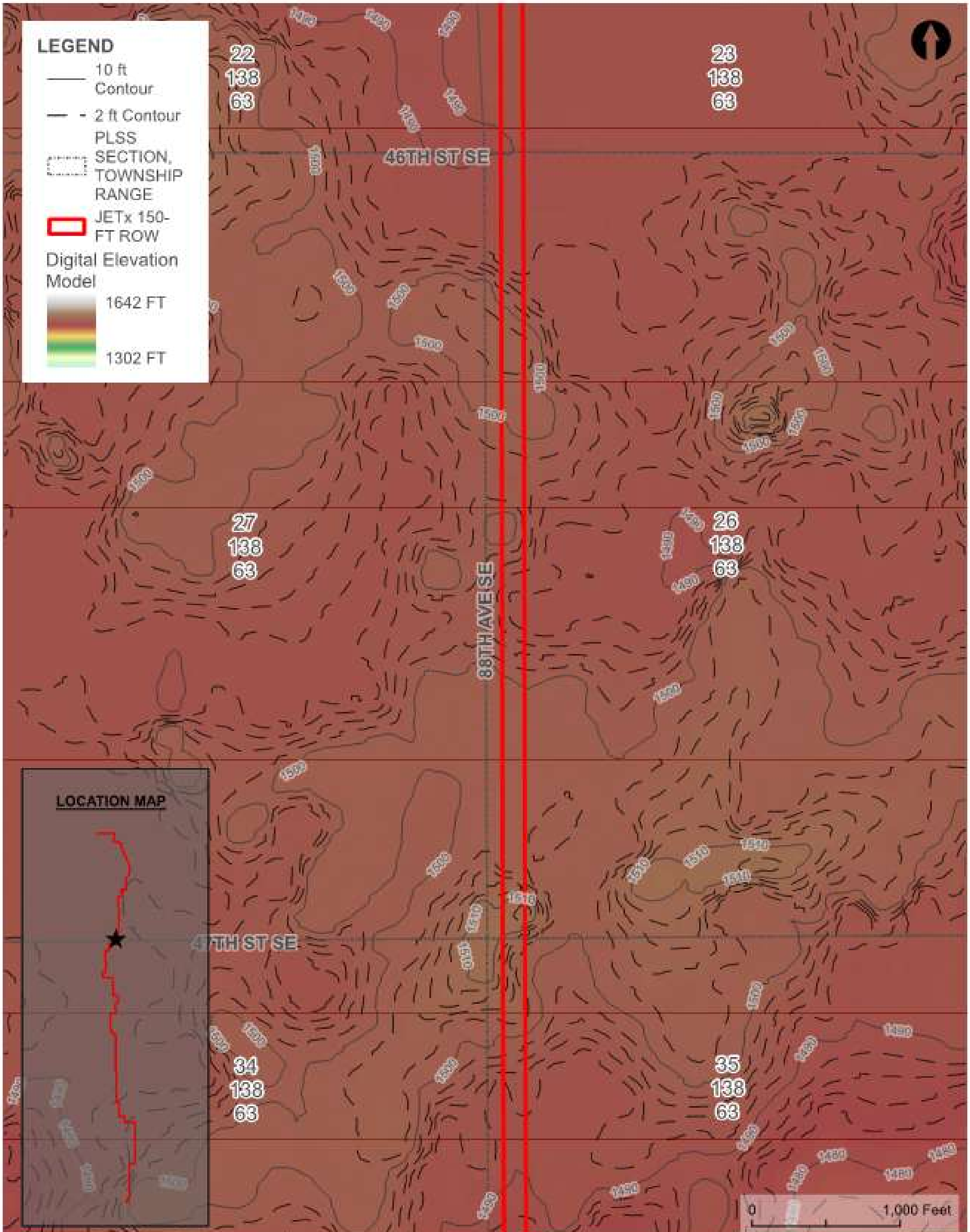
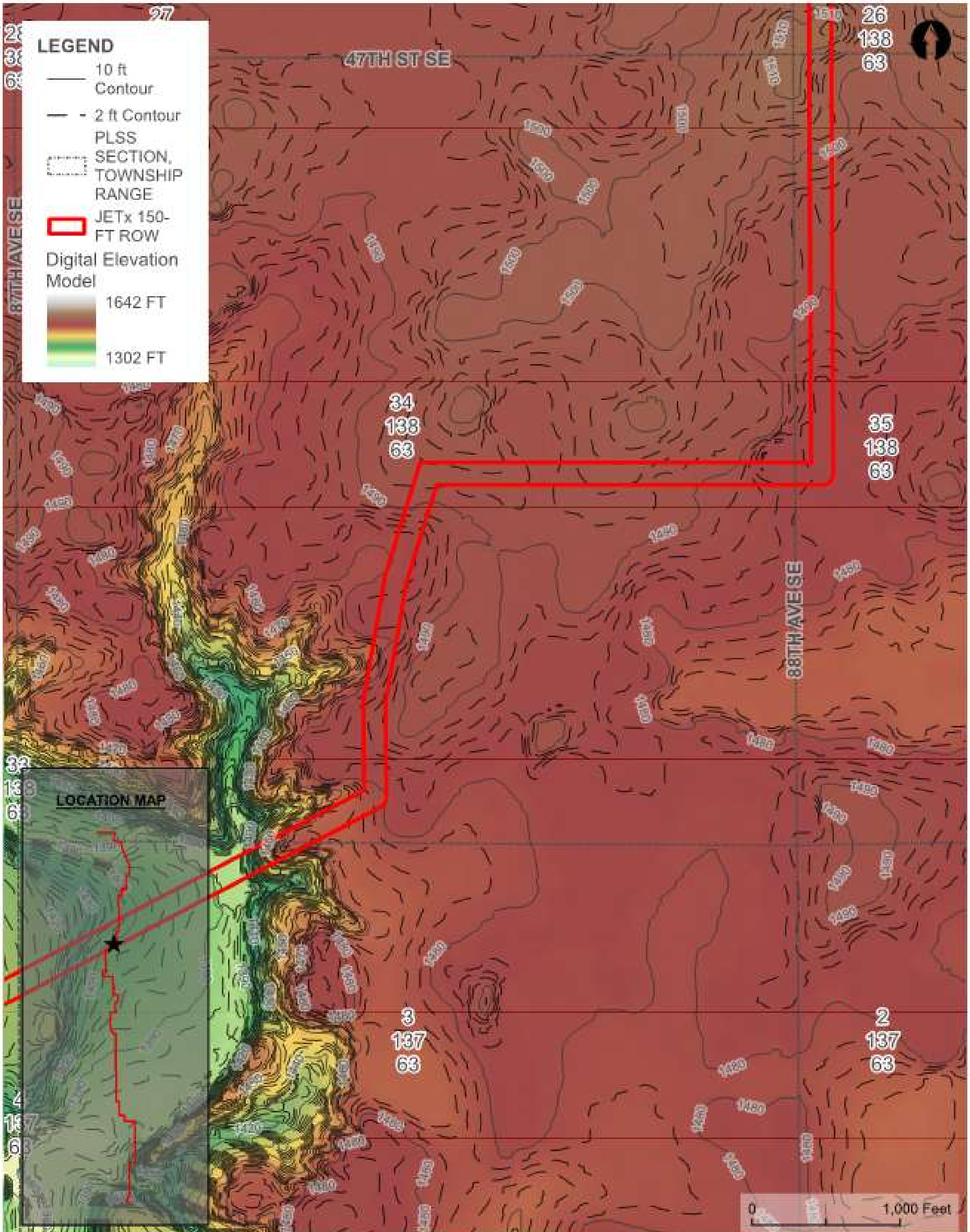
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

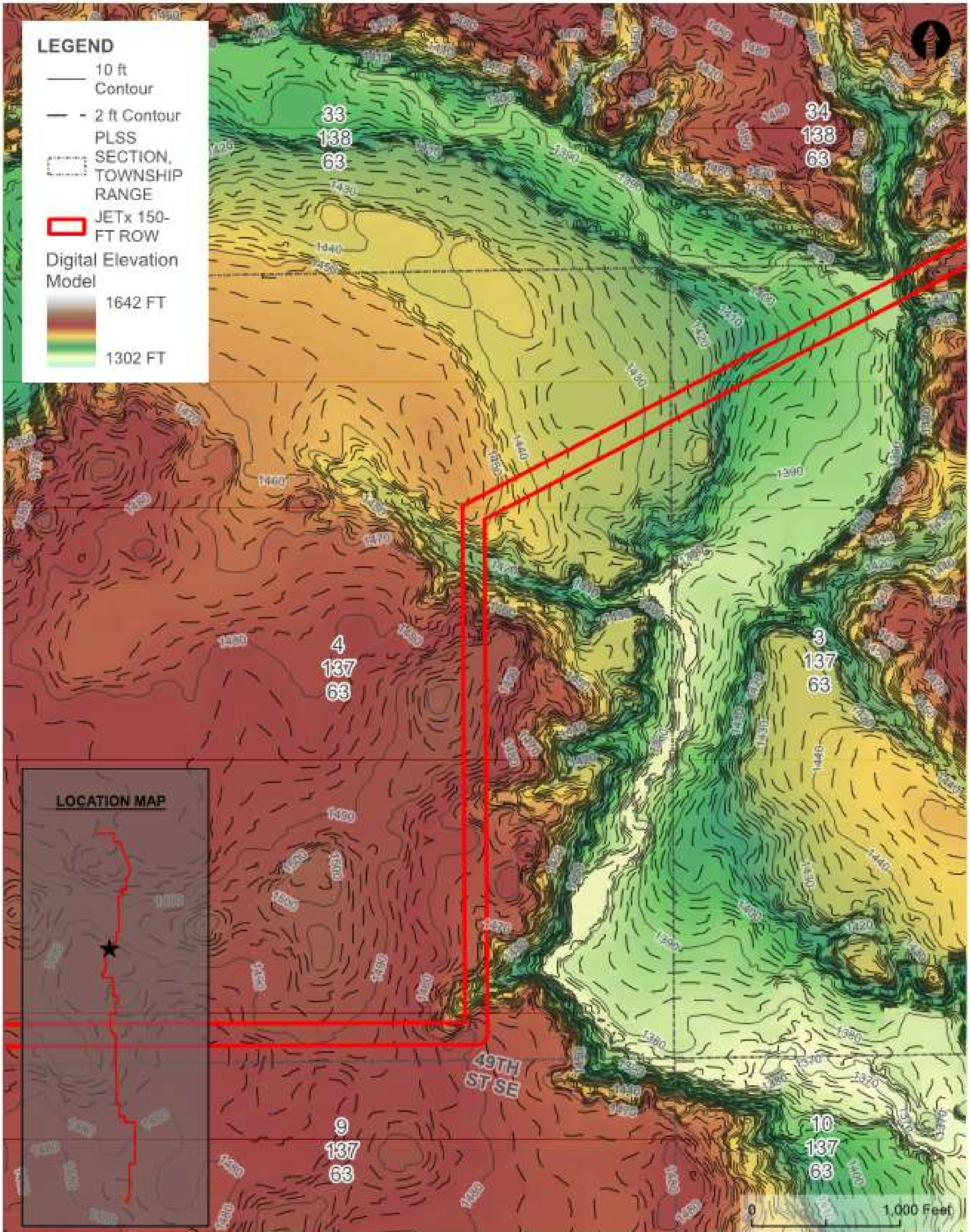
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

FIGURE 5

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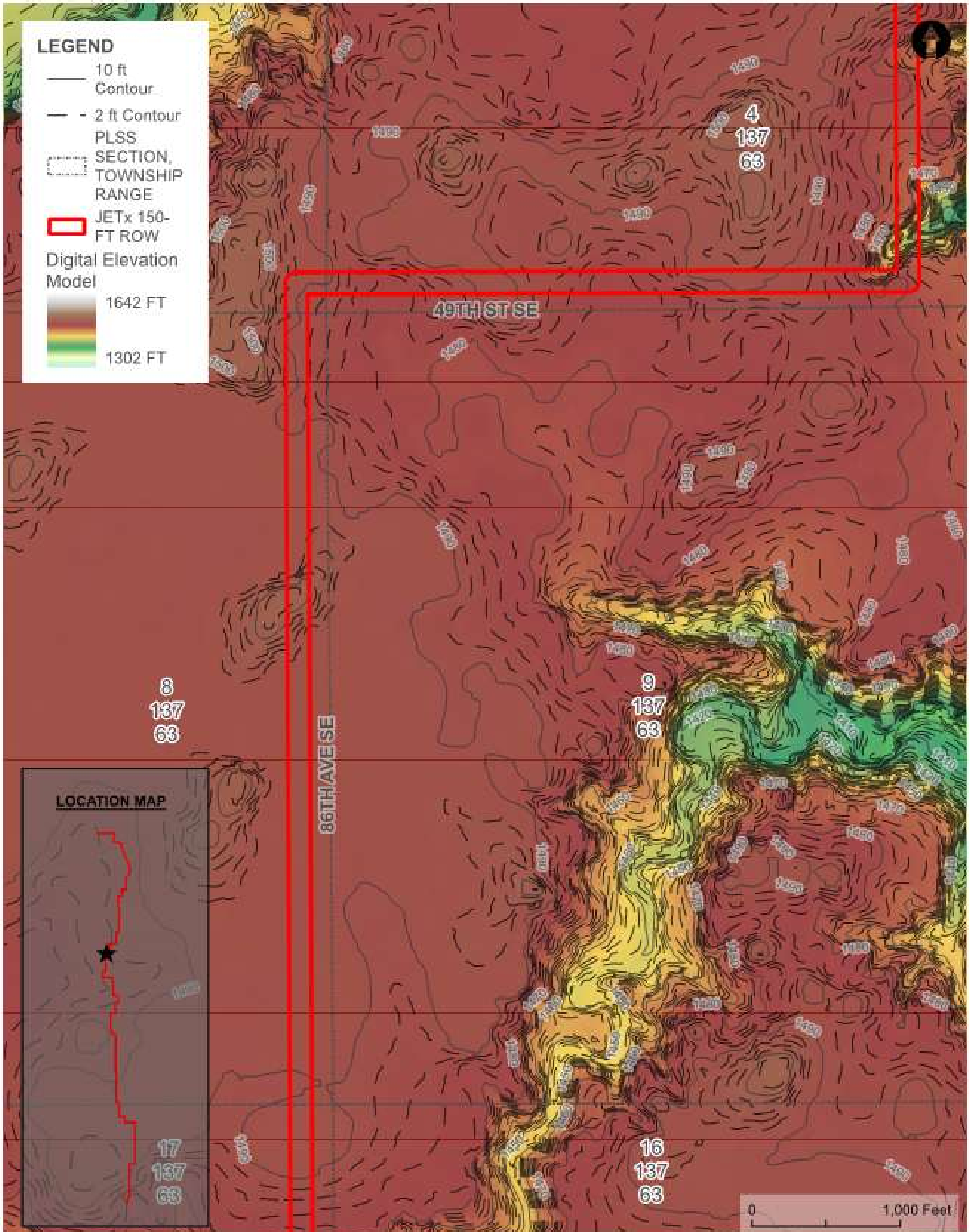
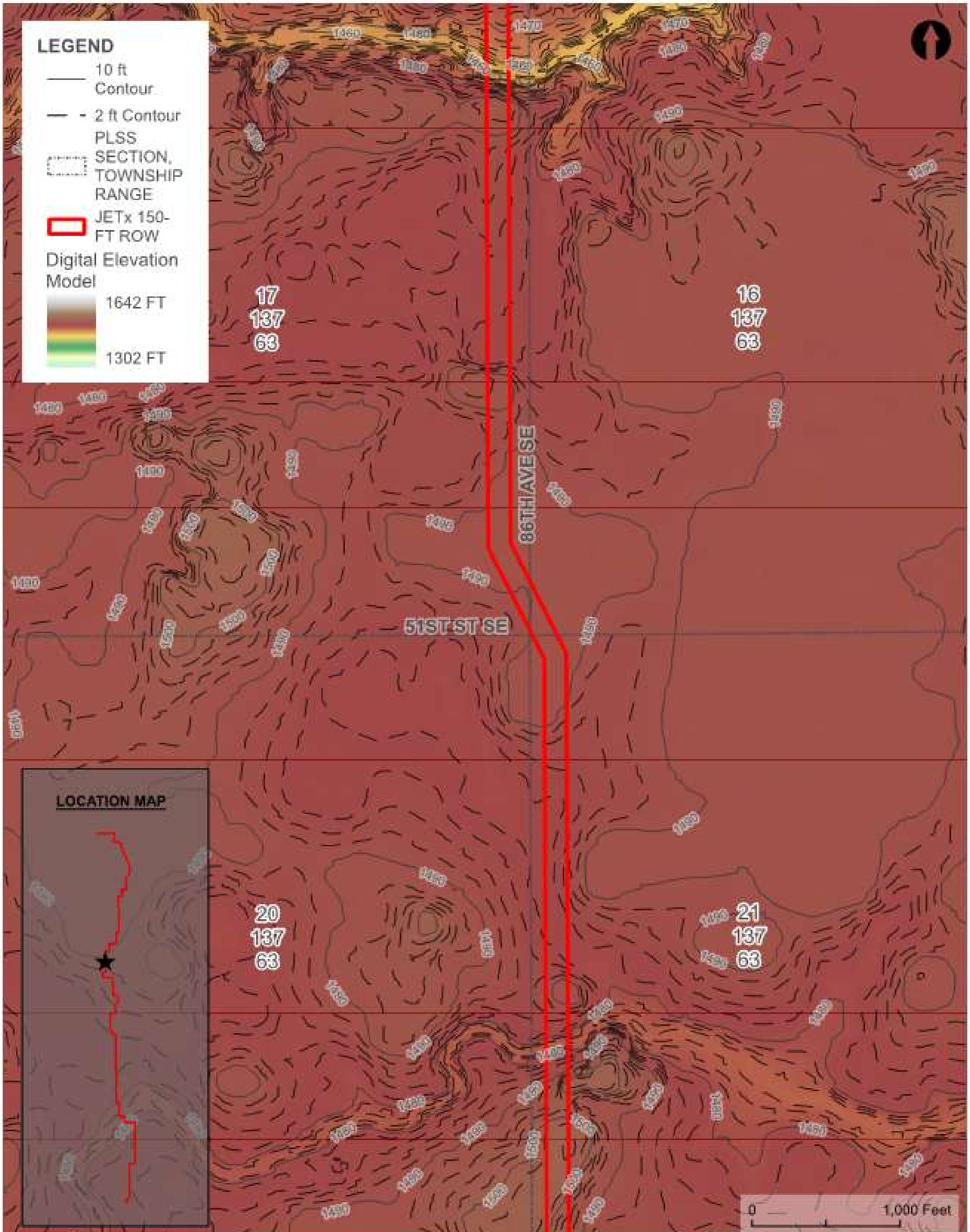
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



CONTOUR/TERRAIN MAP

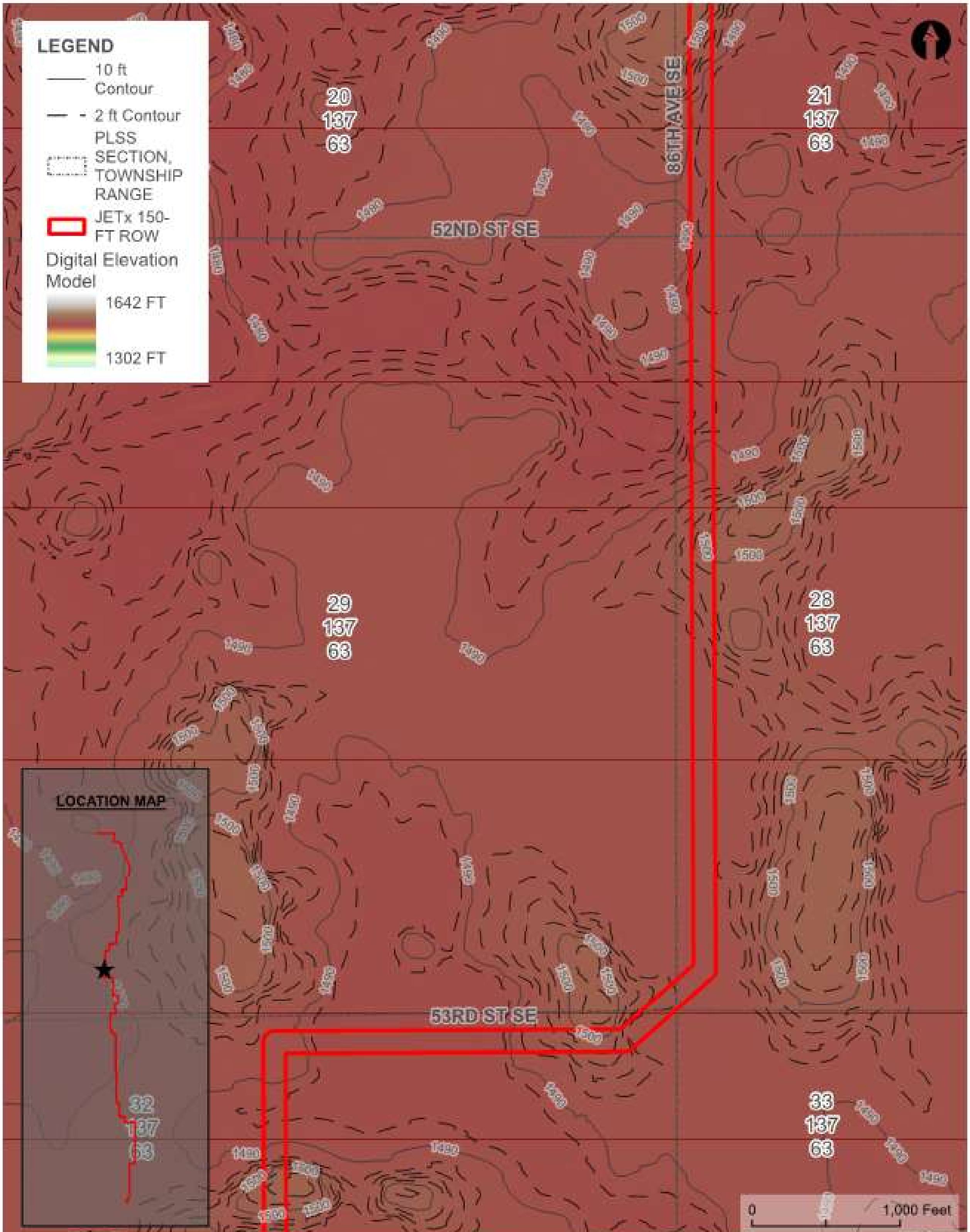
FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

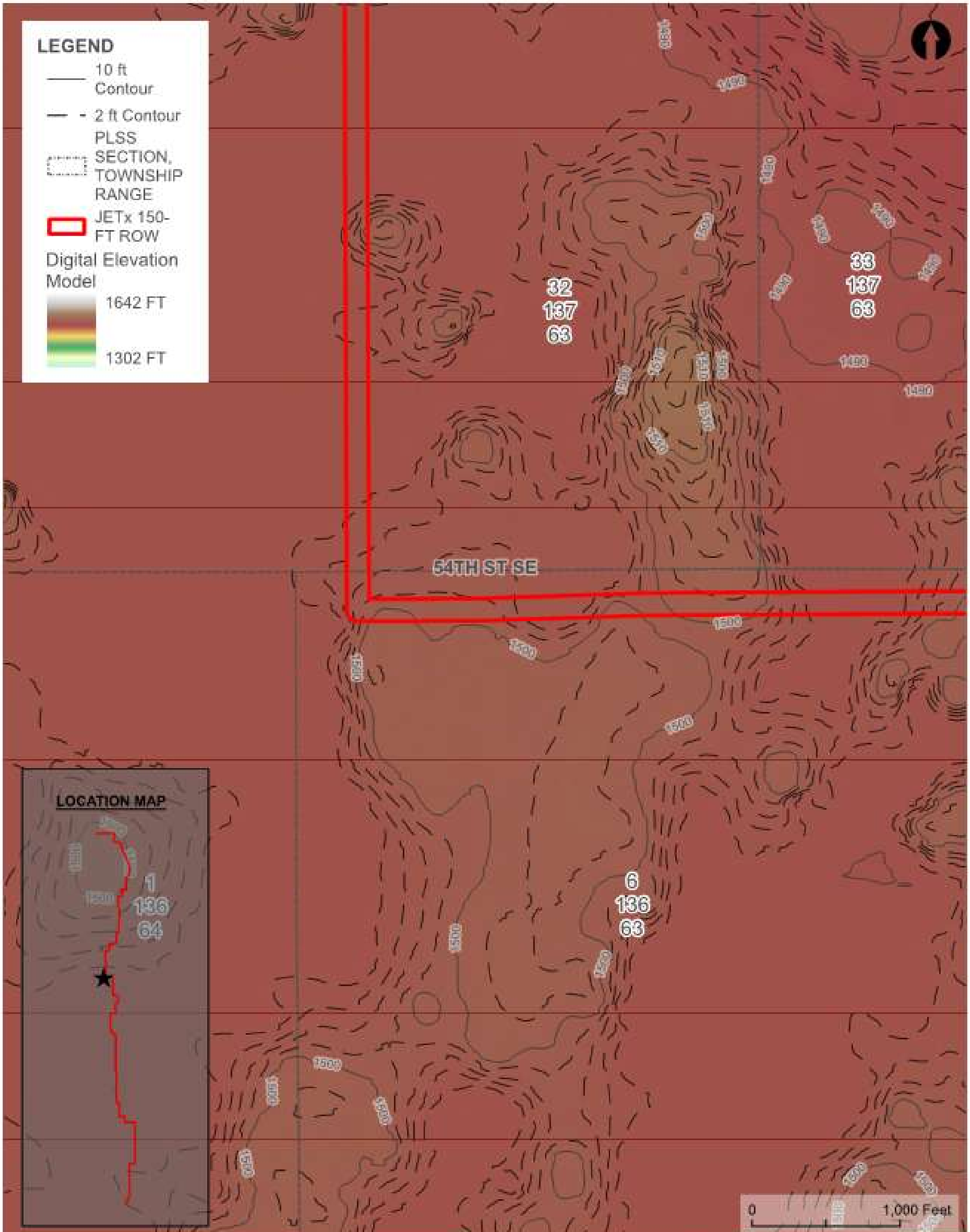
FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

FIGURE 5

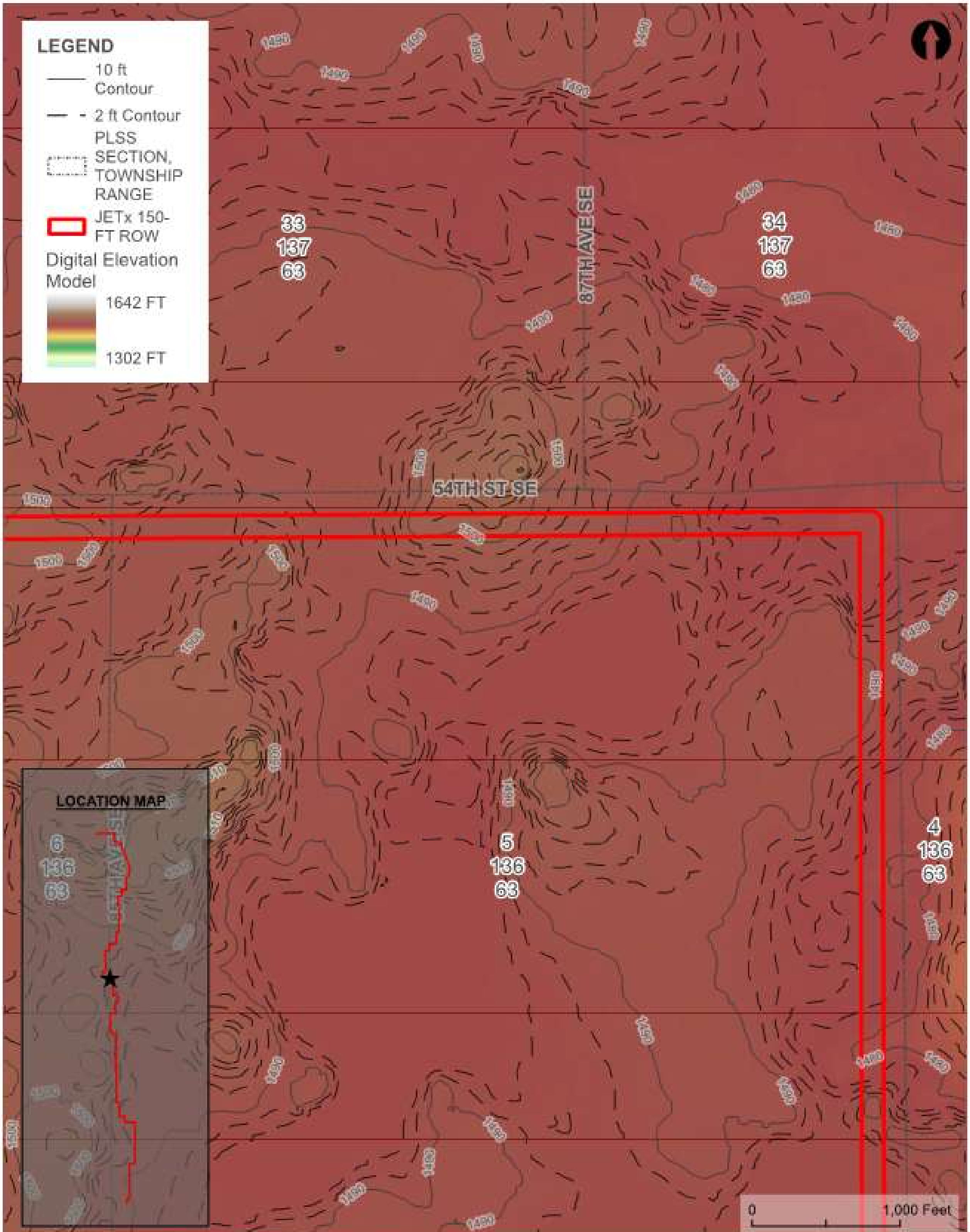


CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 23 OF 55

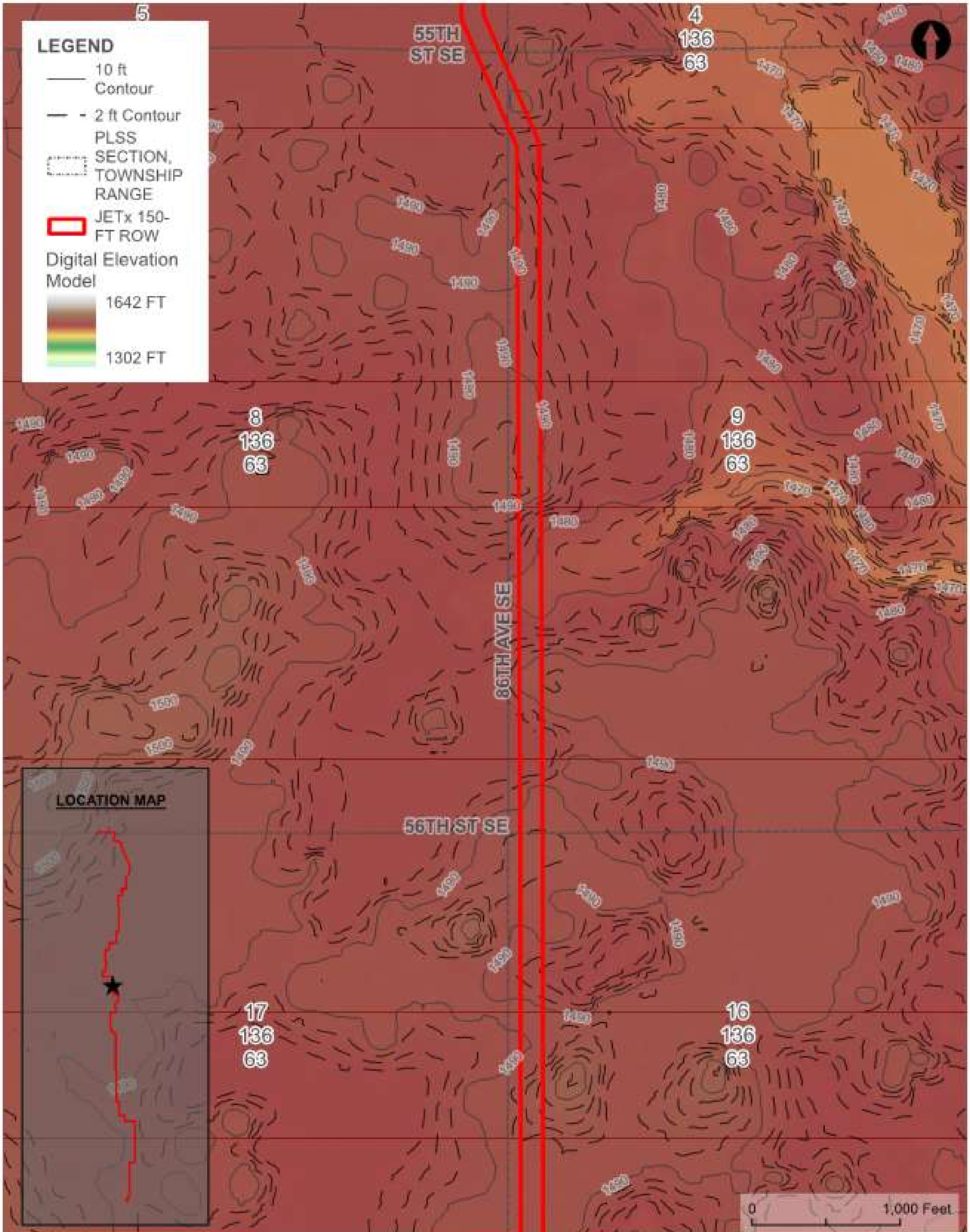
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

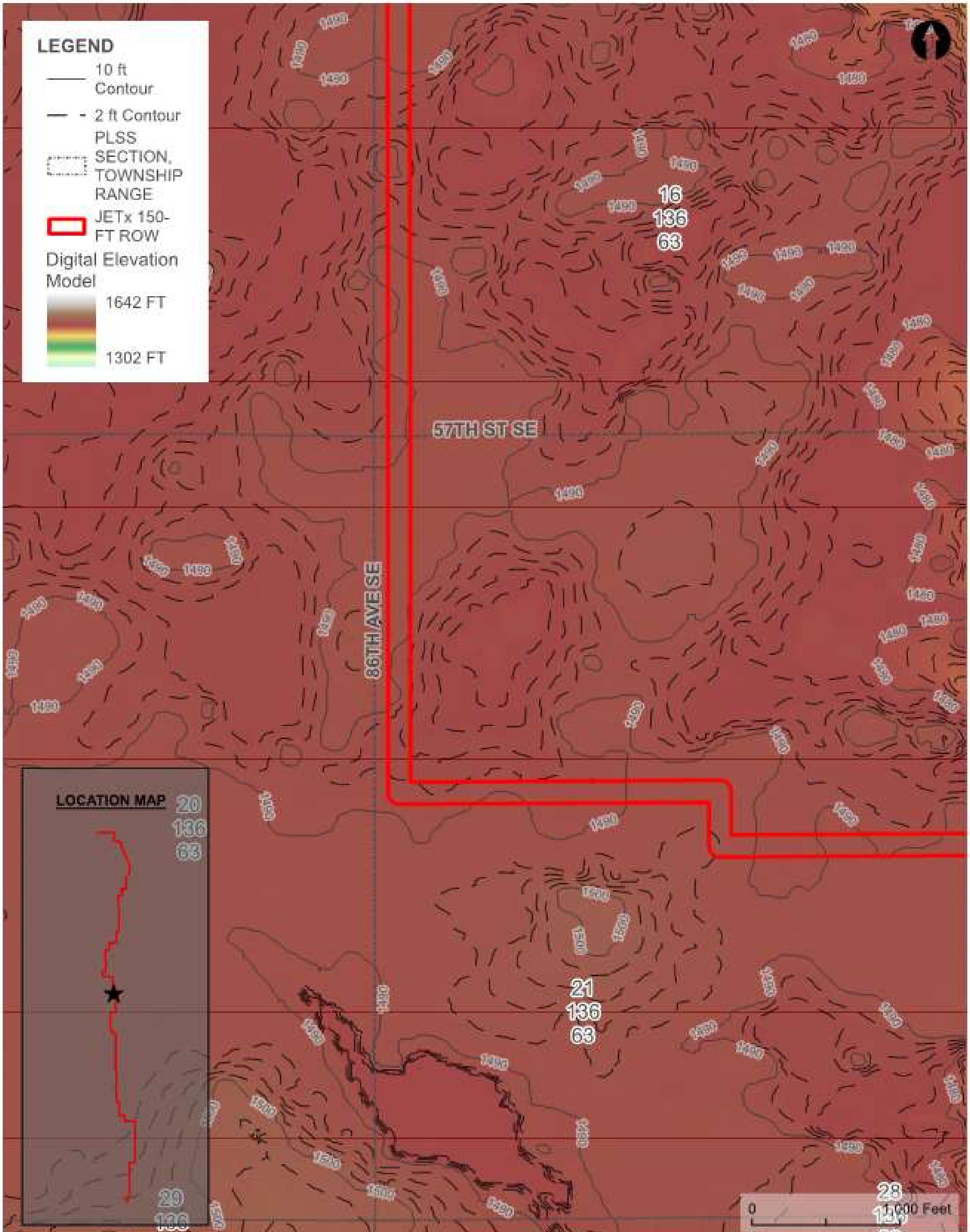
FIGURE 5



JETx

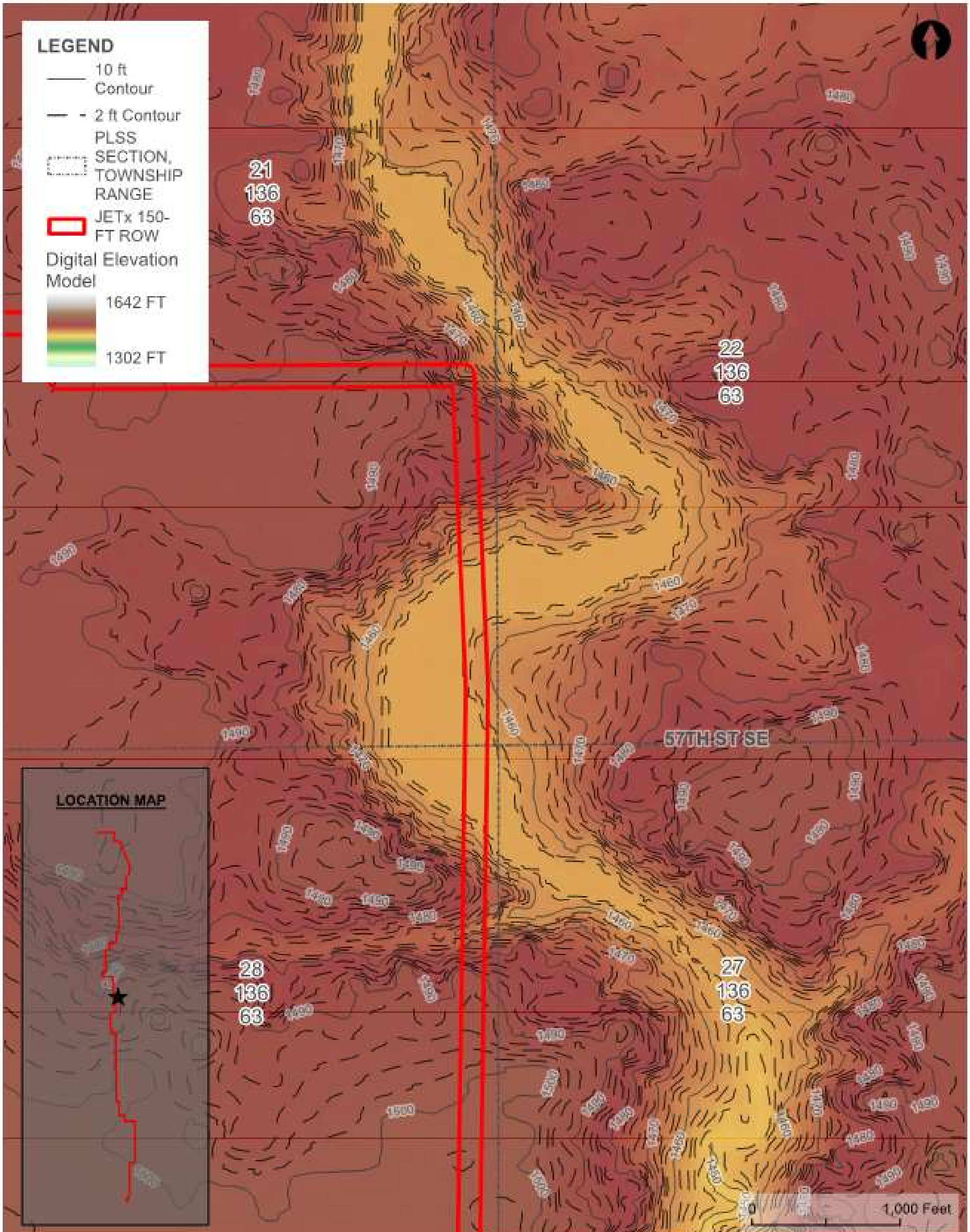
CONTOUR/TERRAIN MAP

FIGURE 5



CONTOUR/TERRAIN MAP

FIGURE 5



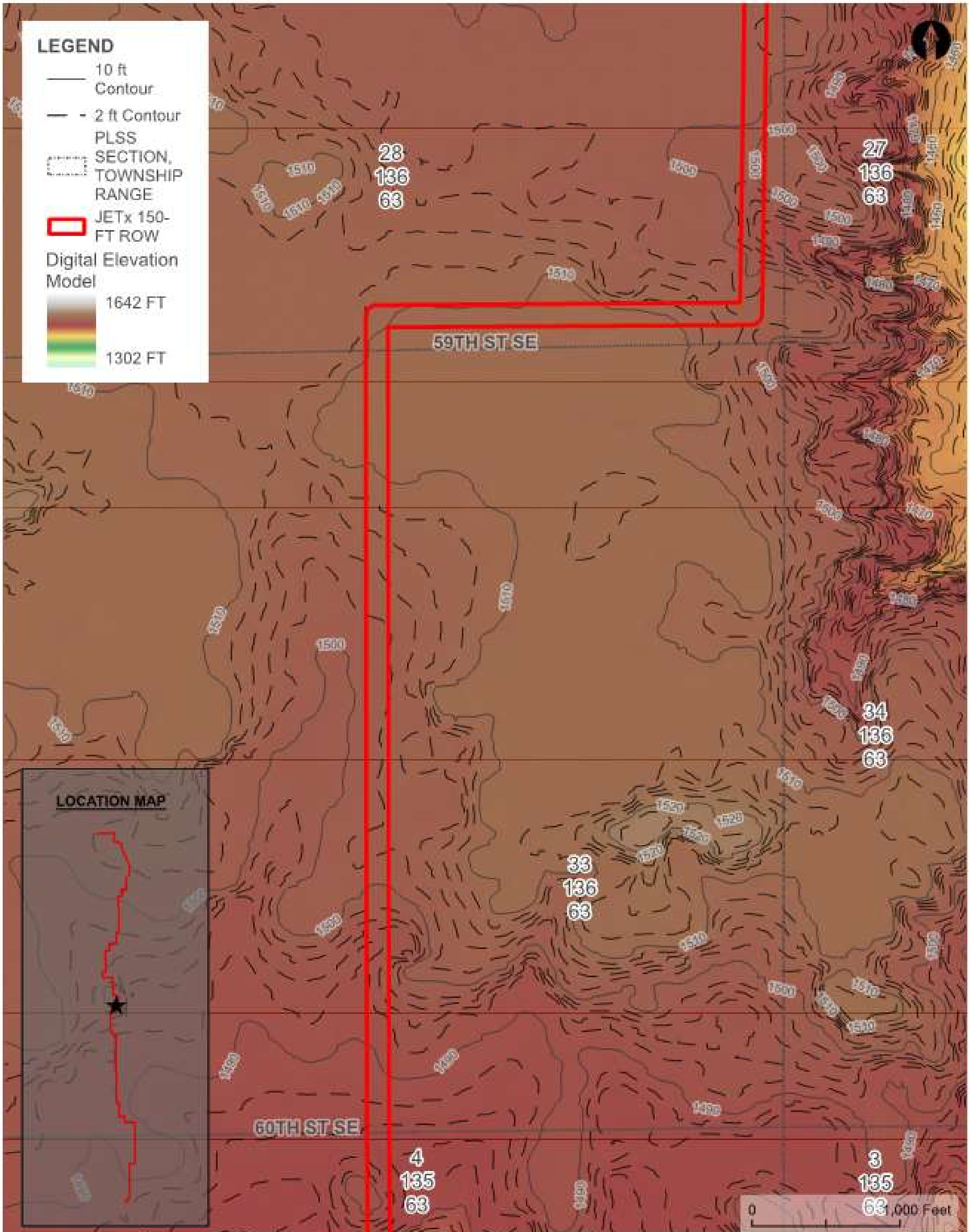
JETx

CONTOUR/TERRAIN MAP

FIGURE 5

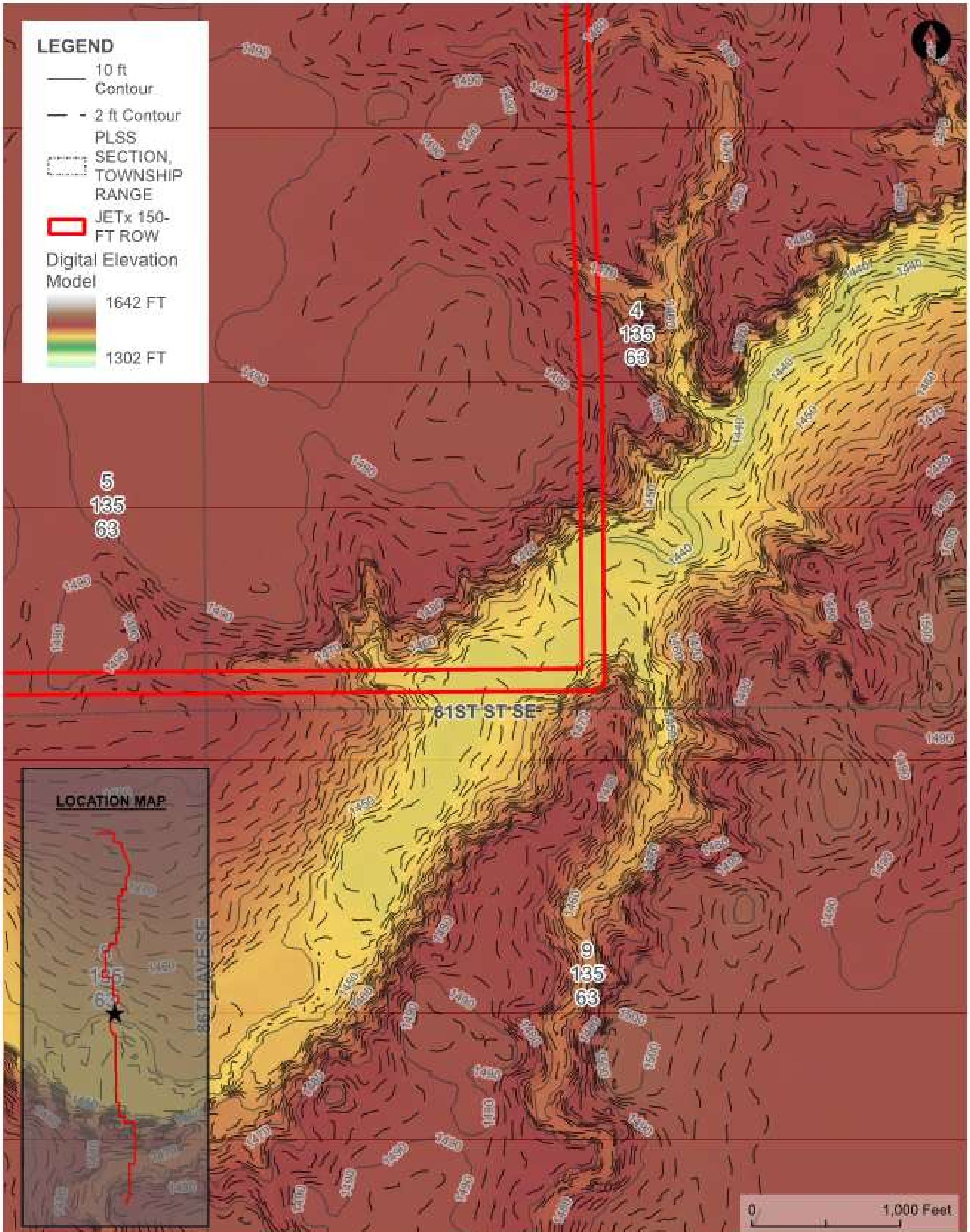
PAGE 27 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



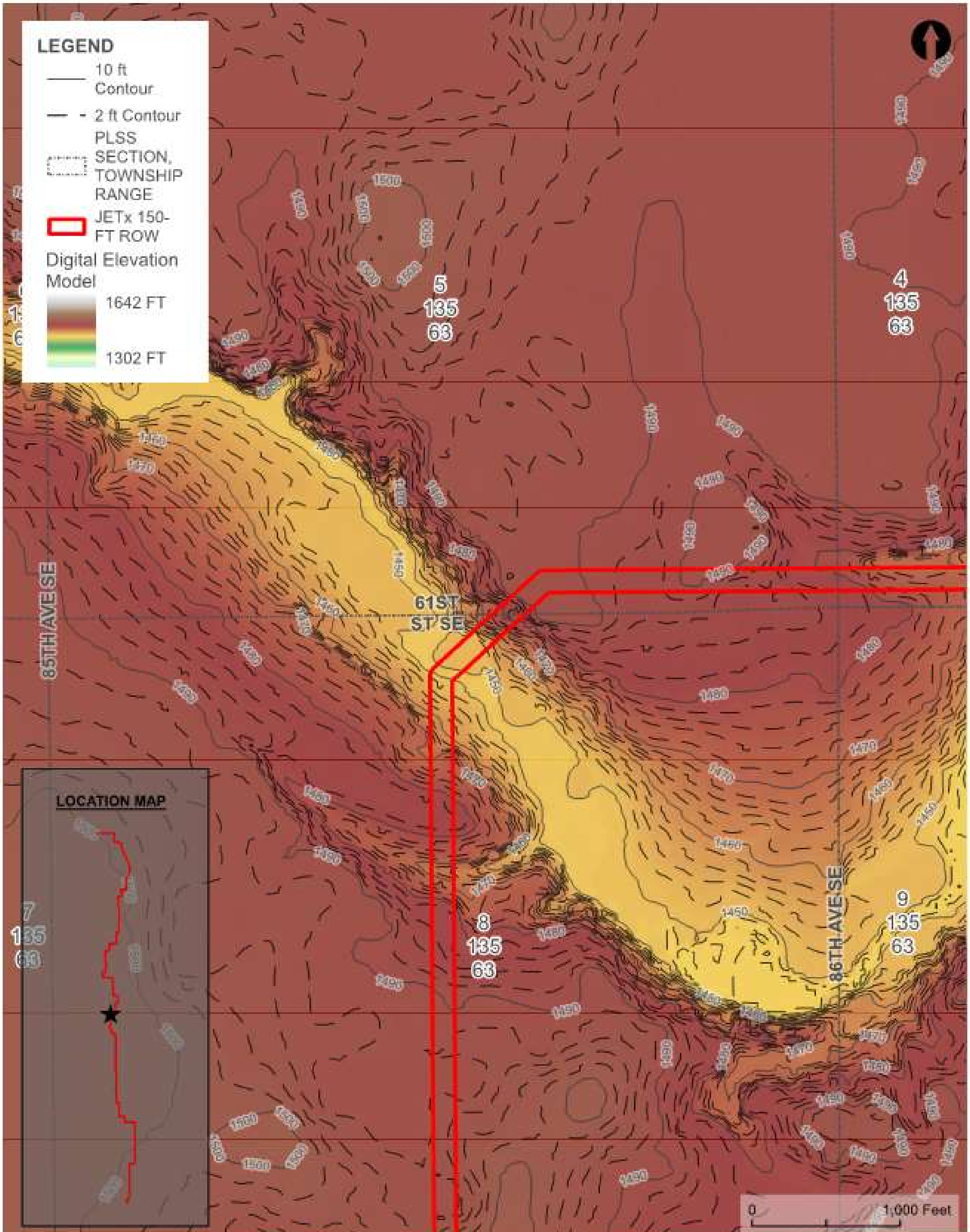
CONTOUR/TERRAIN MAP

FIGURE 5



CONTOUR/TERRAIN MAP

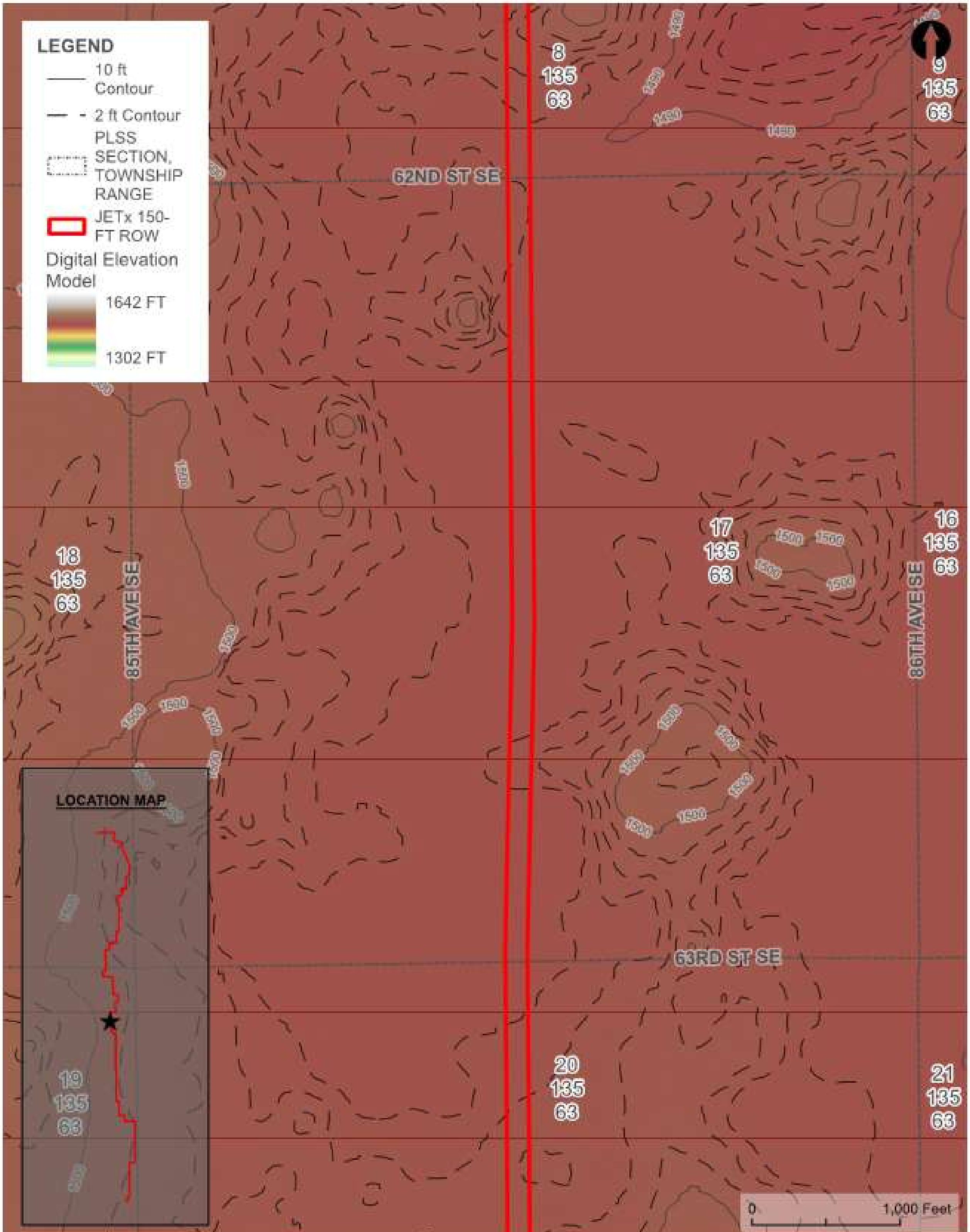
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

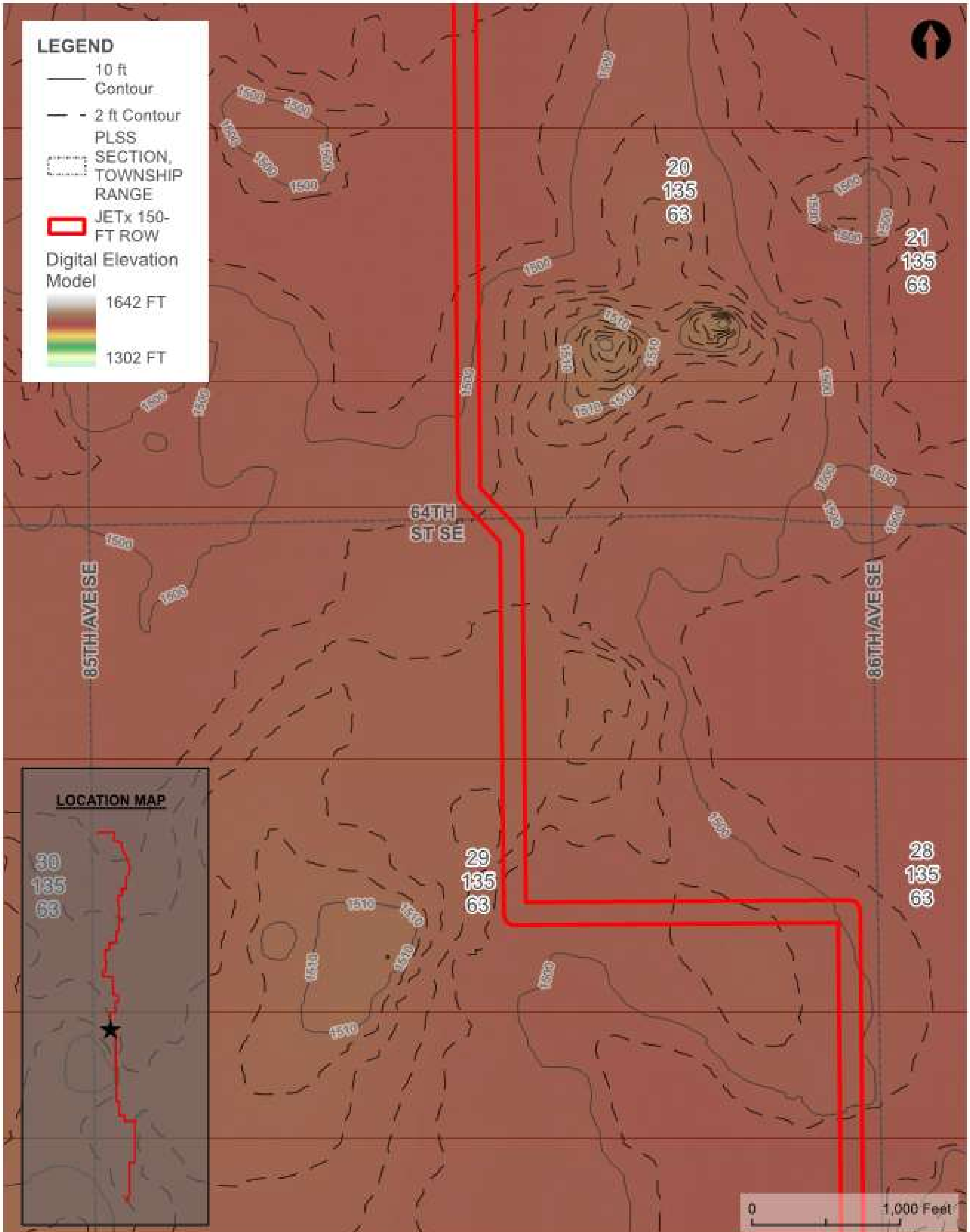
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



CONTOUR/TERRAIN MAP

FIGURE 5

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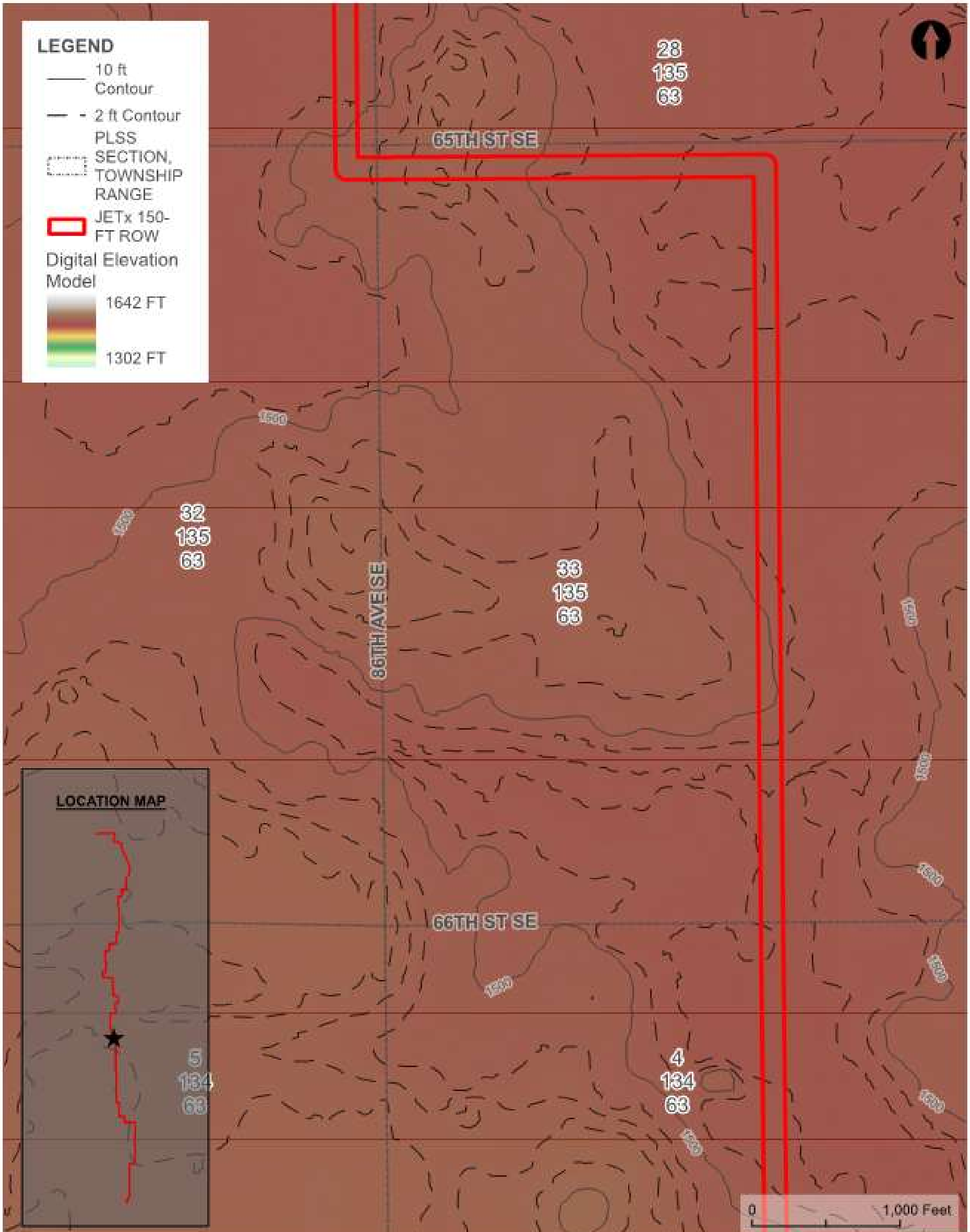
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



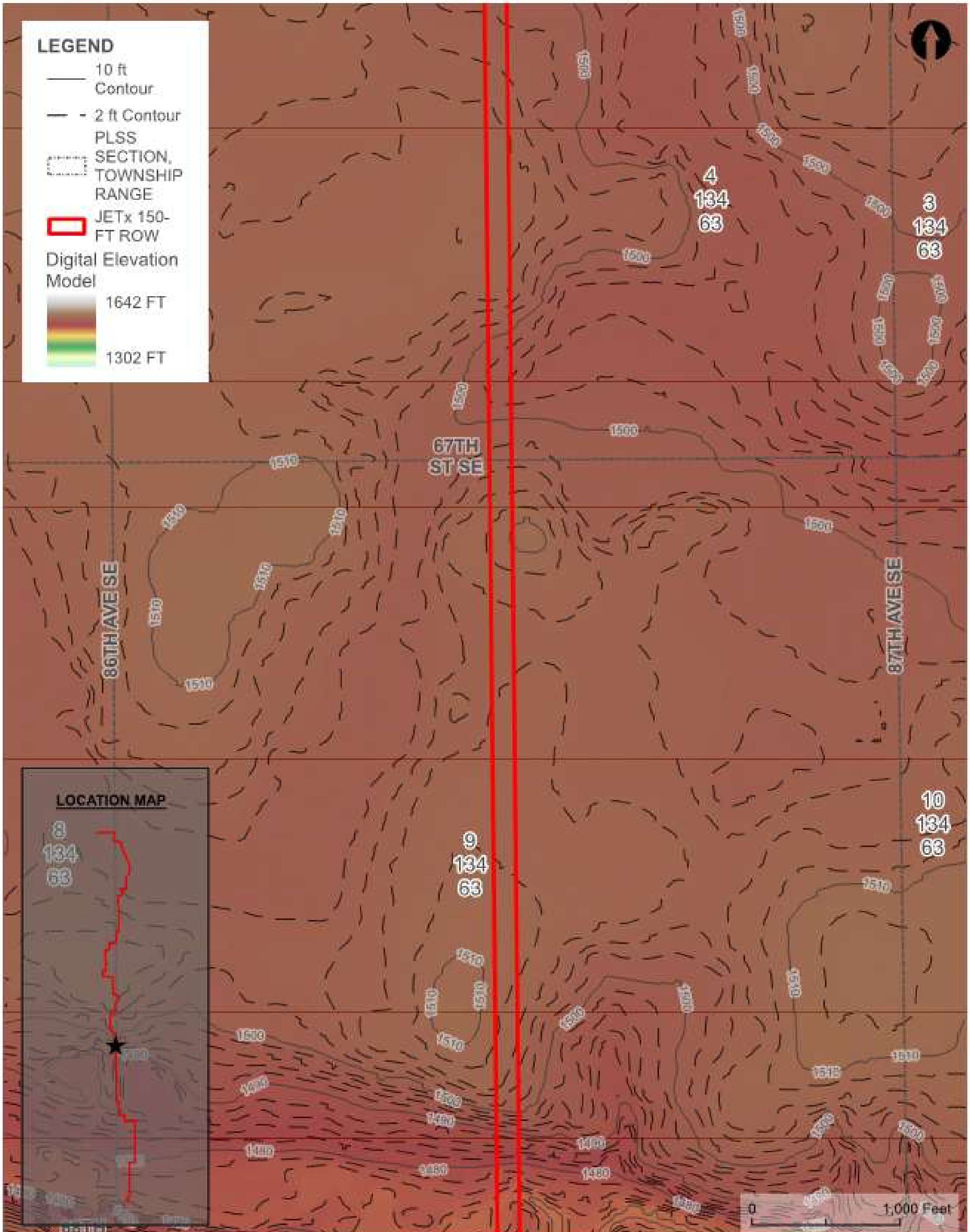
JETx

CONTOUR/TERRAIN MAP

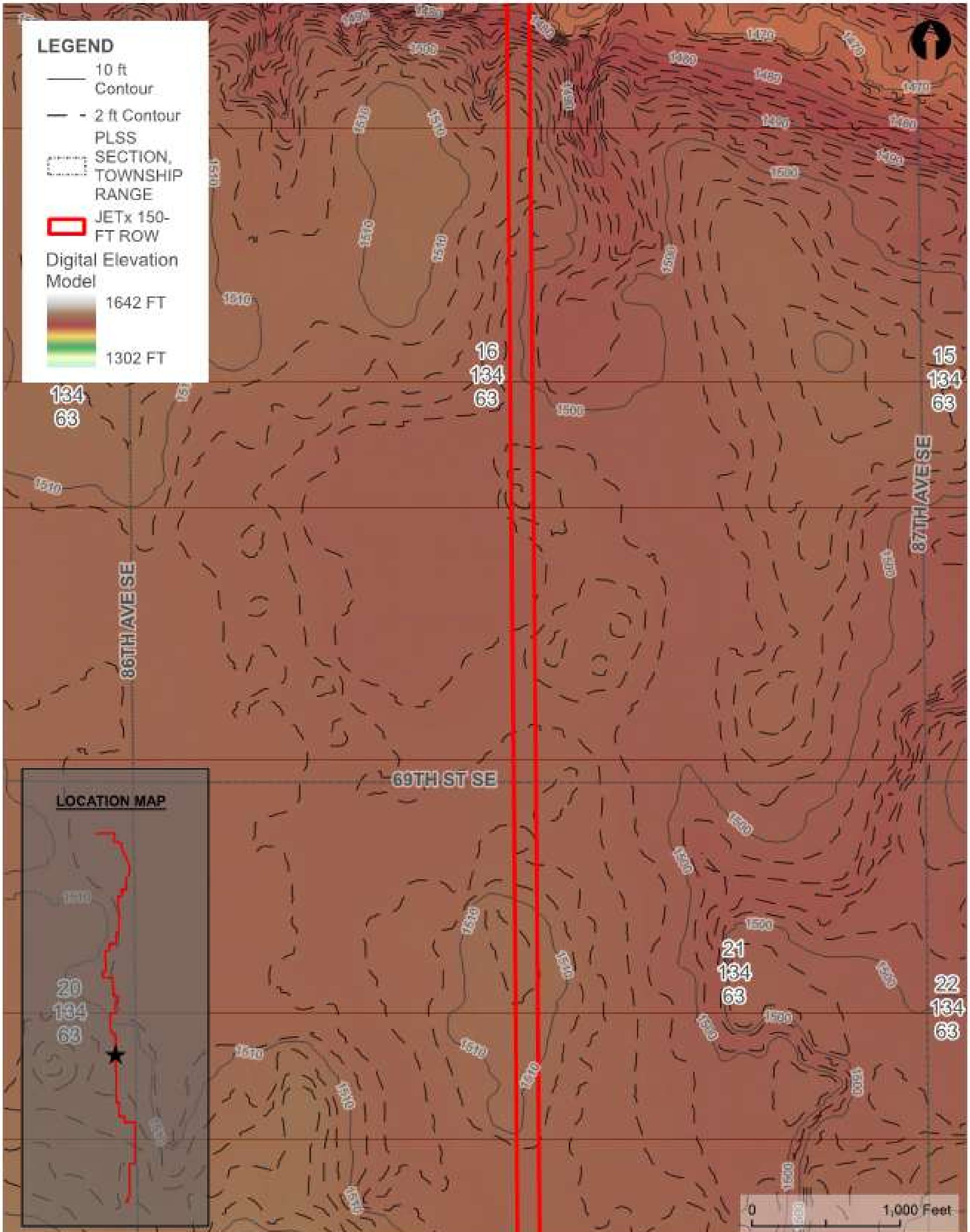
FIGURE 5

PAGE 33 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



CONTOUR/TERRAIN MAP



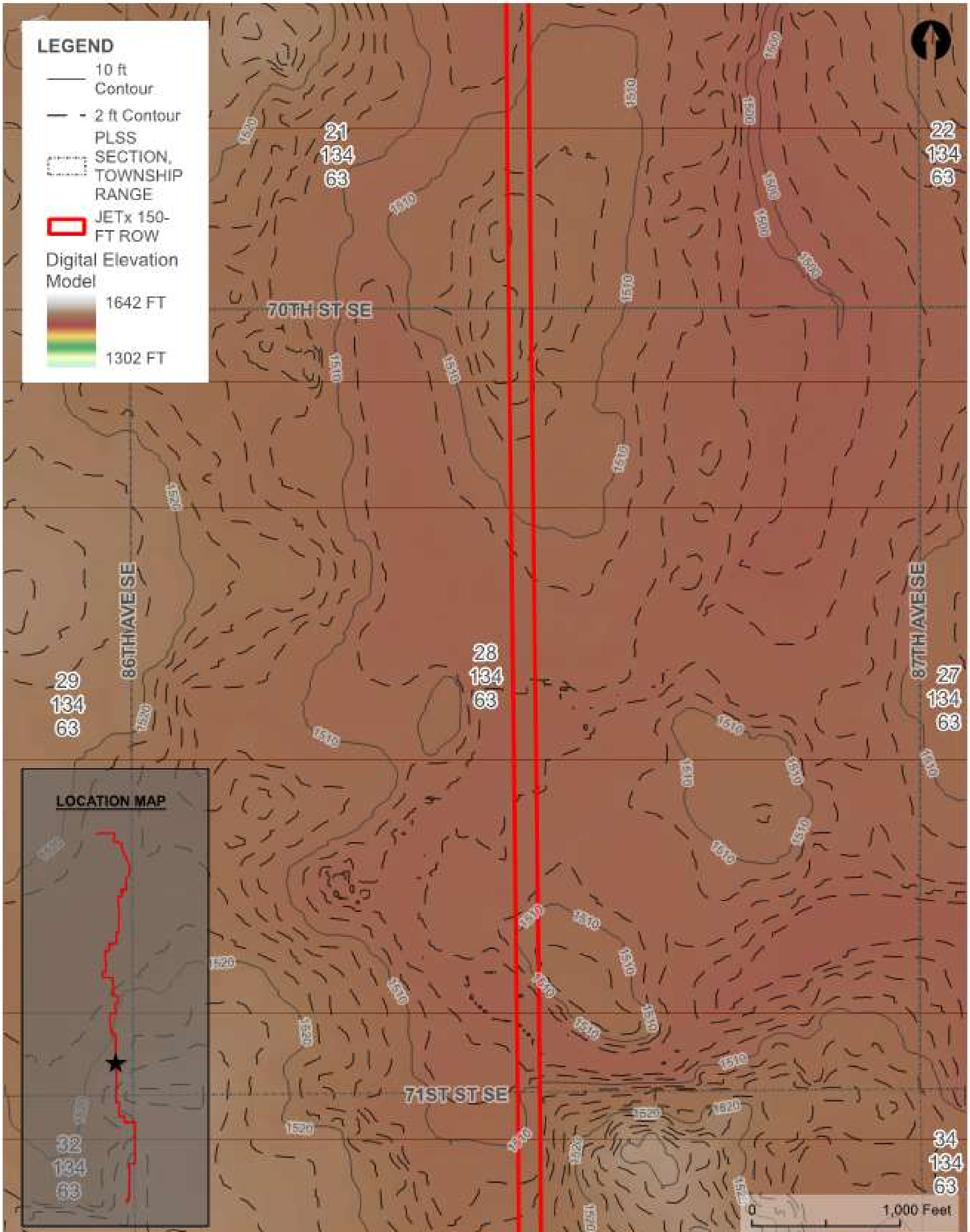
JETx

CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 35 OF 55

JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

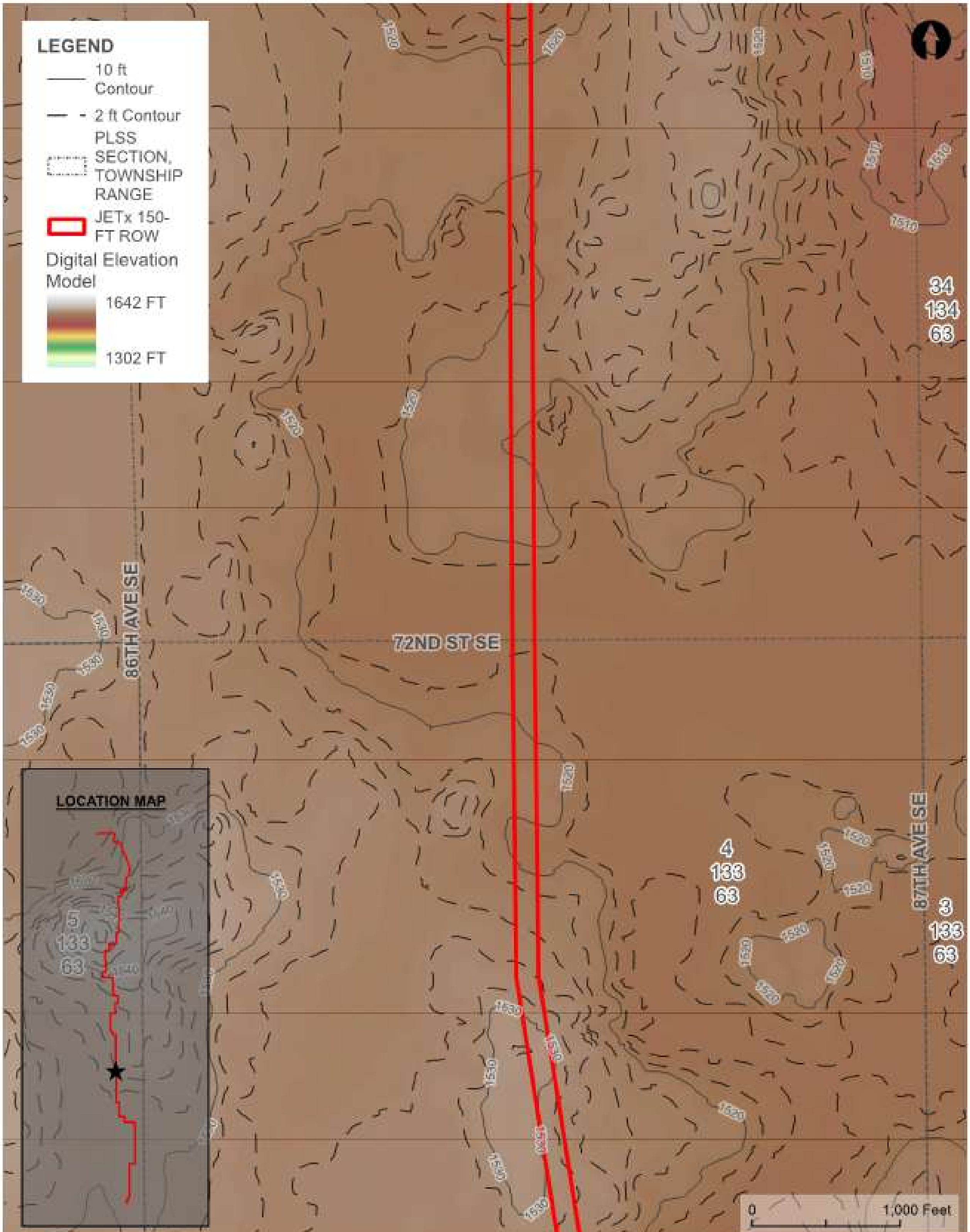


JETx

CONTOUR/TERRAIN MAP

FIGURE 5

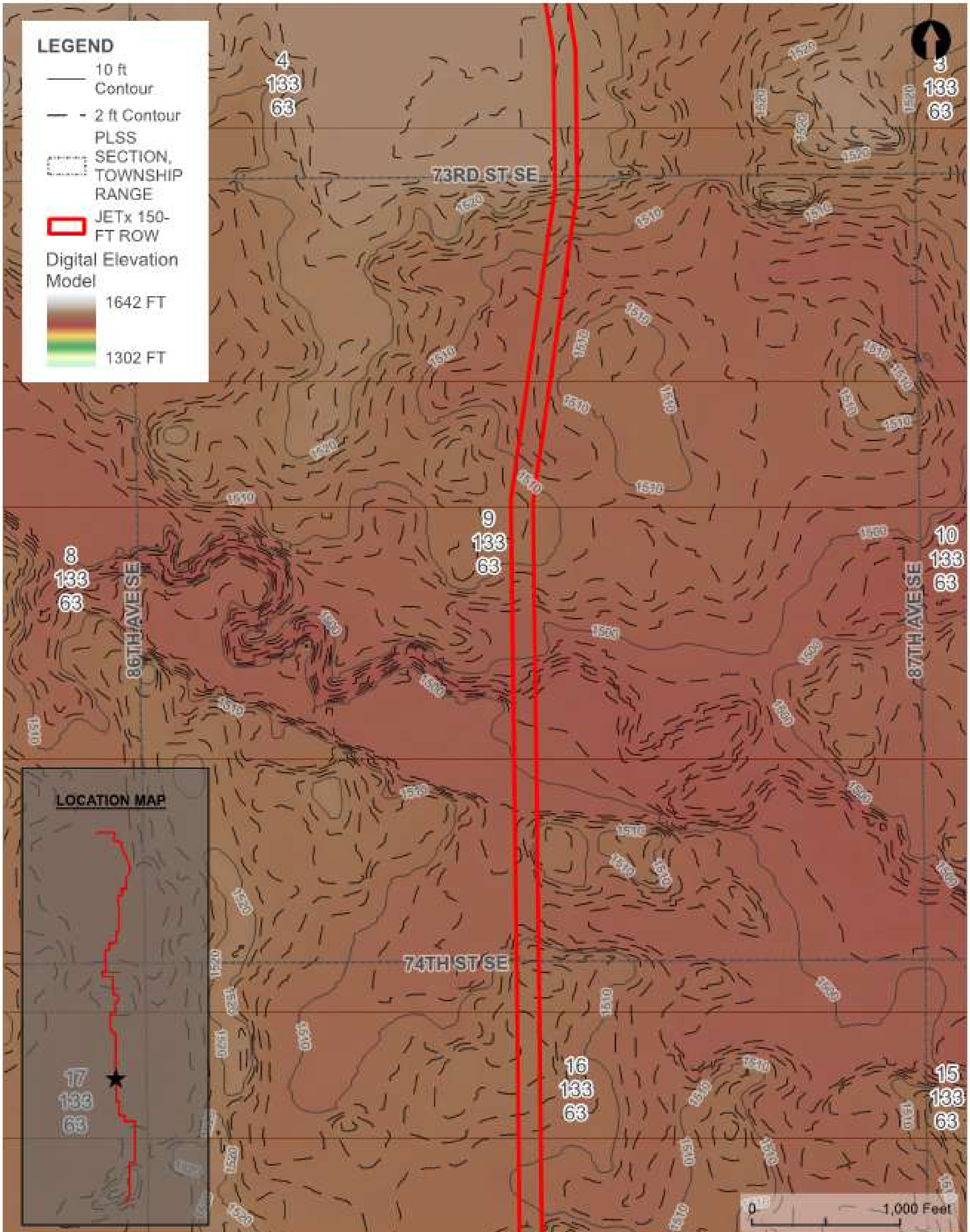
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

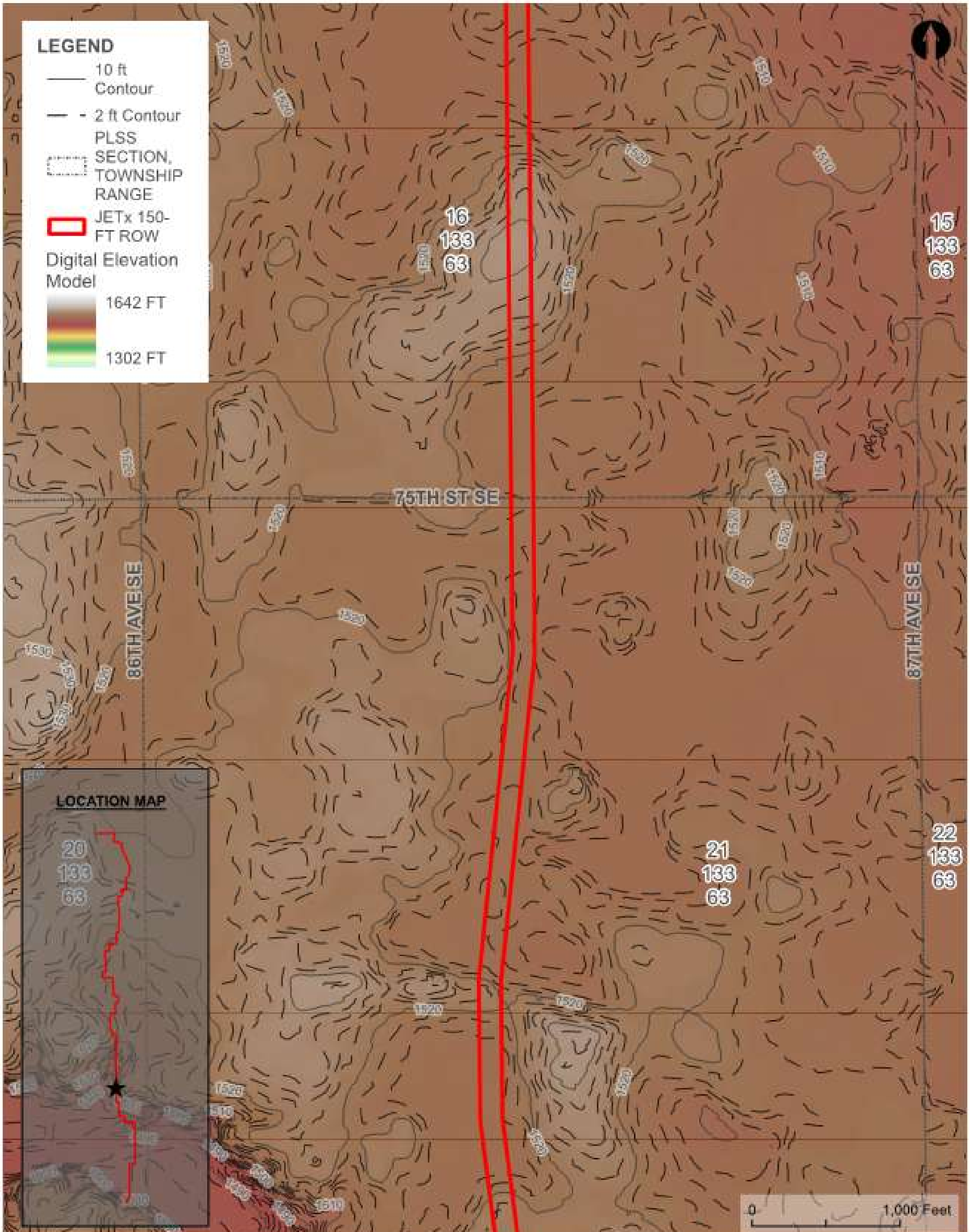
FIGURE 5



JETx Jamestown to Ellendale

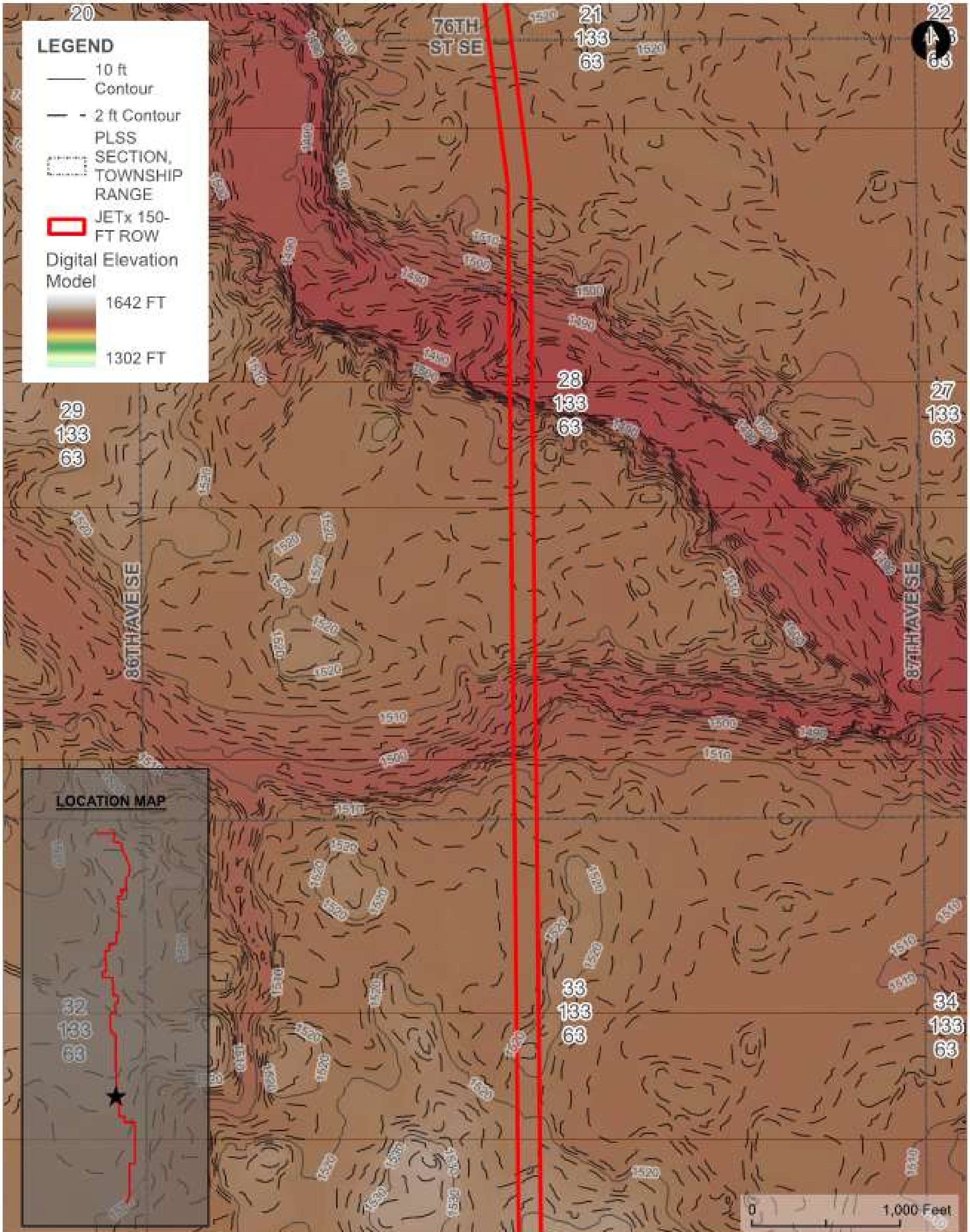
CONTOUR/TERRAIN MAP

FIGURE 5



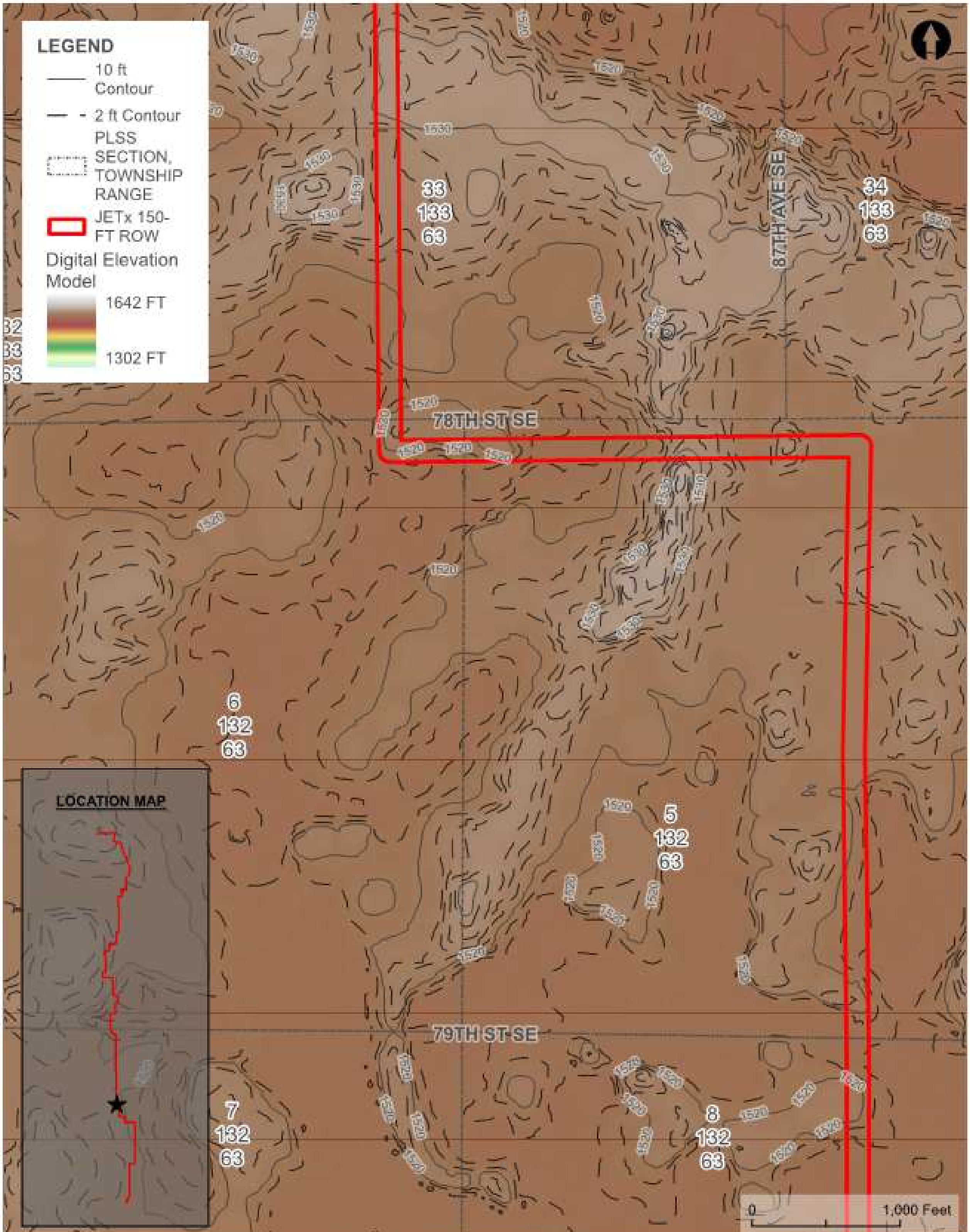
JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP
FIGURE 5
PAGE 39 OF 55
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



CONTOUR/TERRAIN MAP

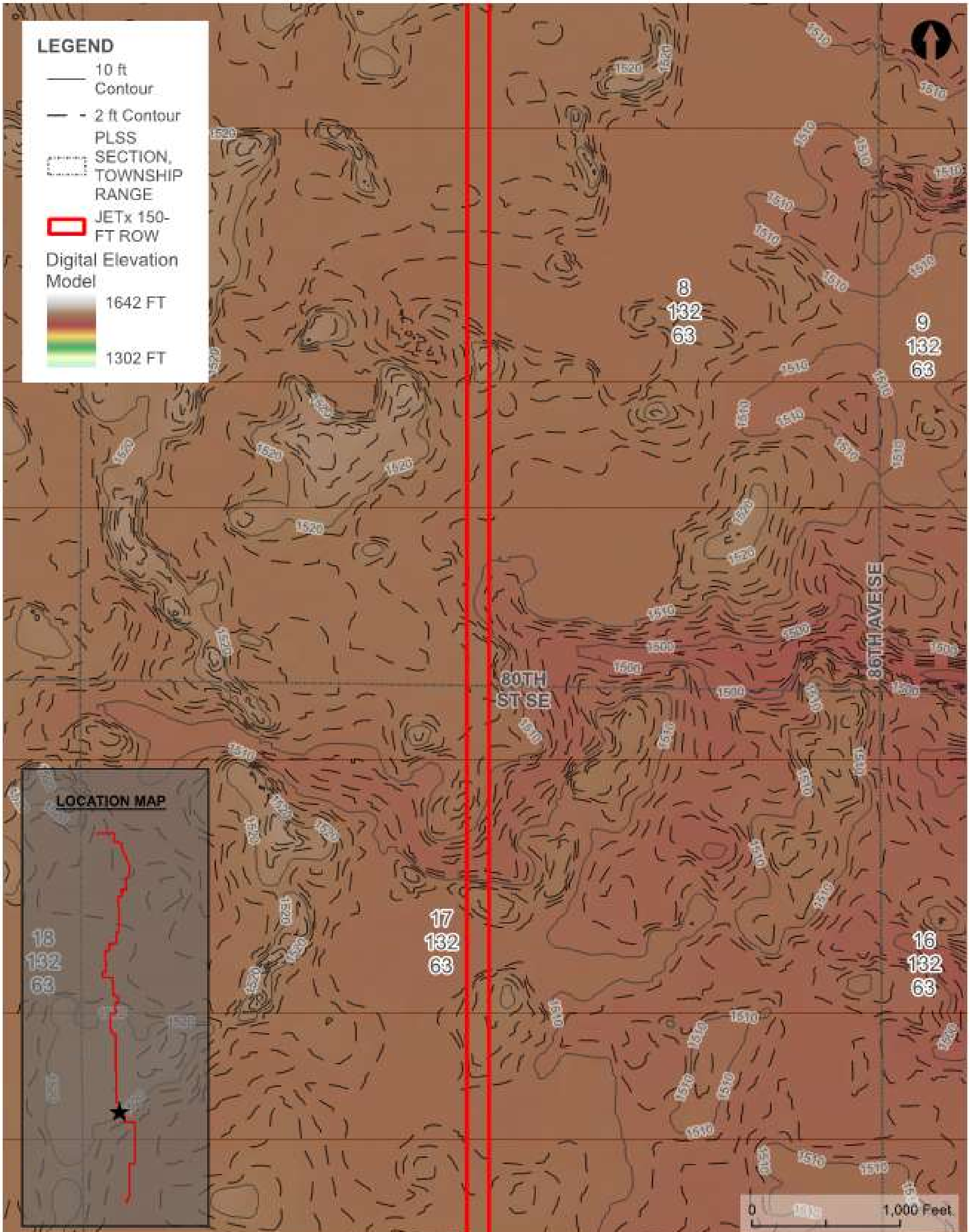
FIGURE 5



JETx
Jamestown to Ellendale

CONTOUR/TERRAIN MAP

FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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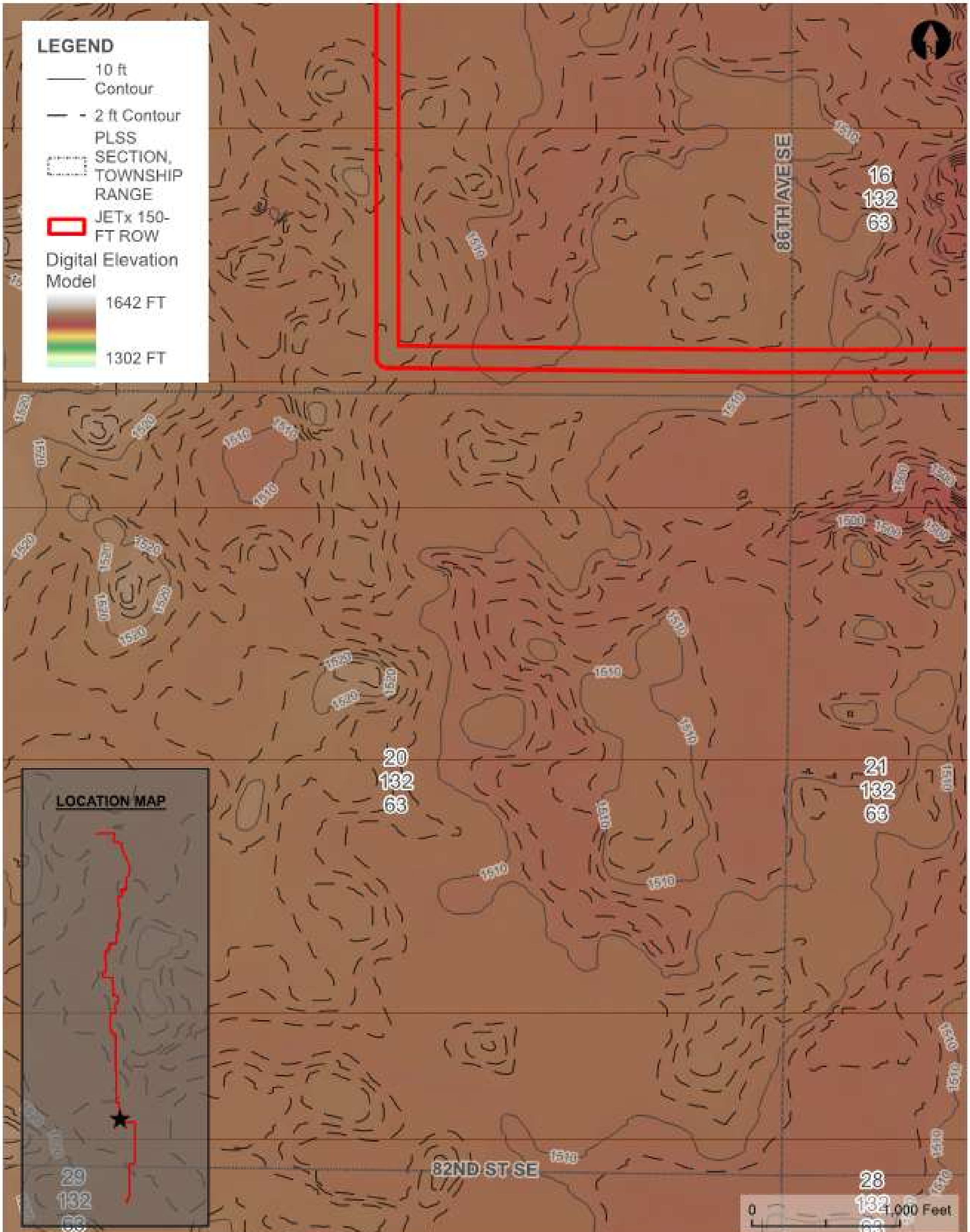
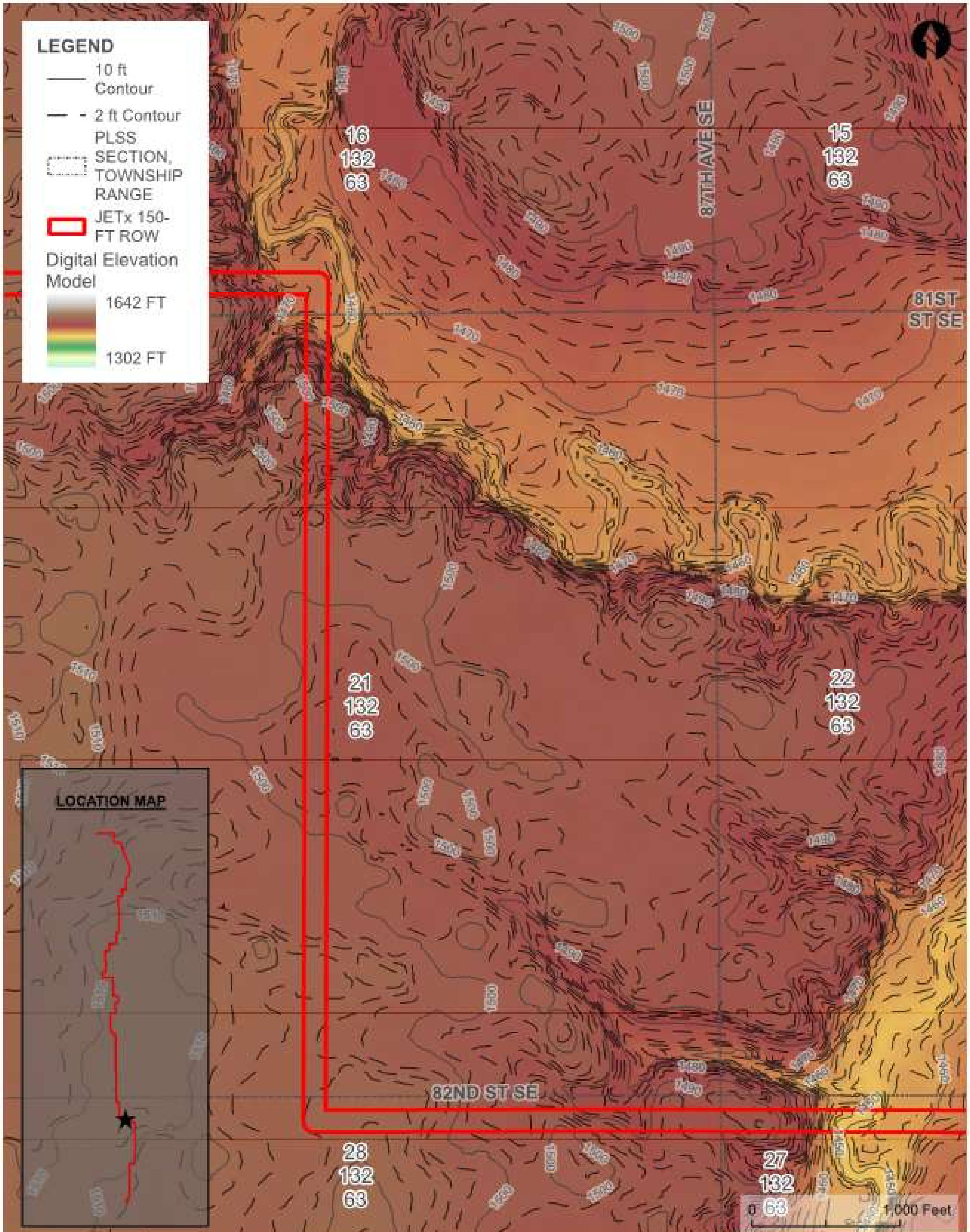
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



CONTOUR/TERRAIN MAP

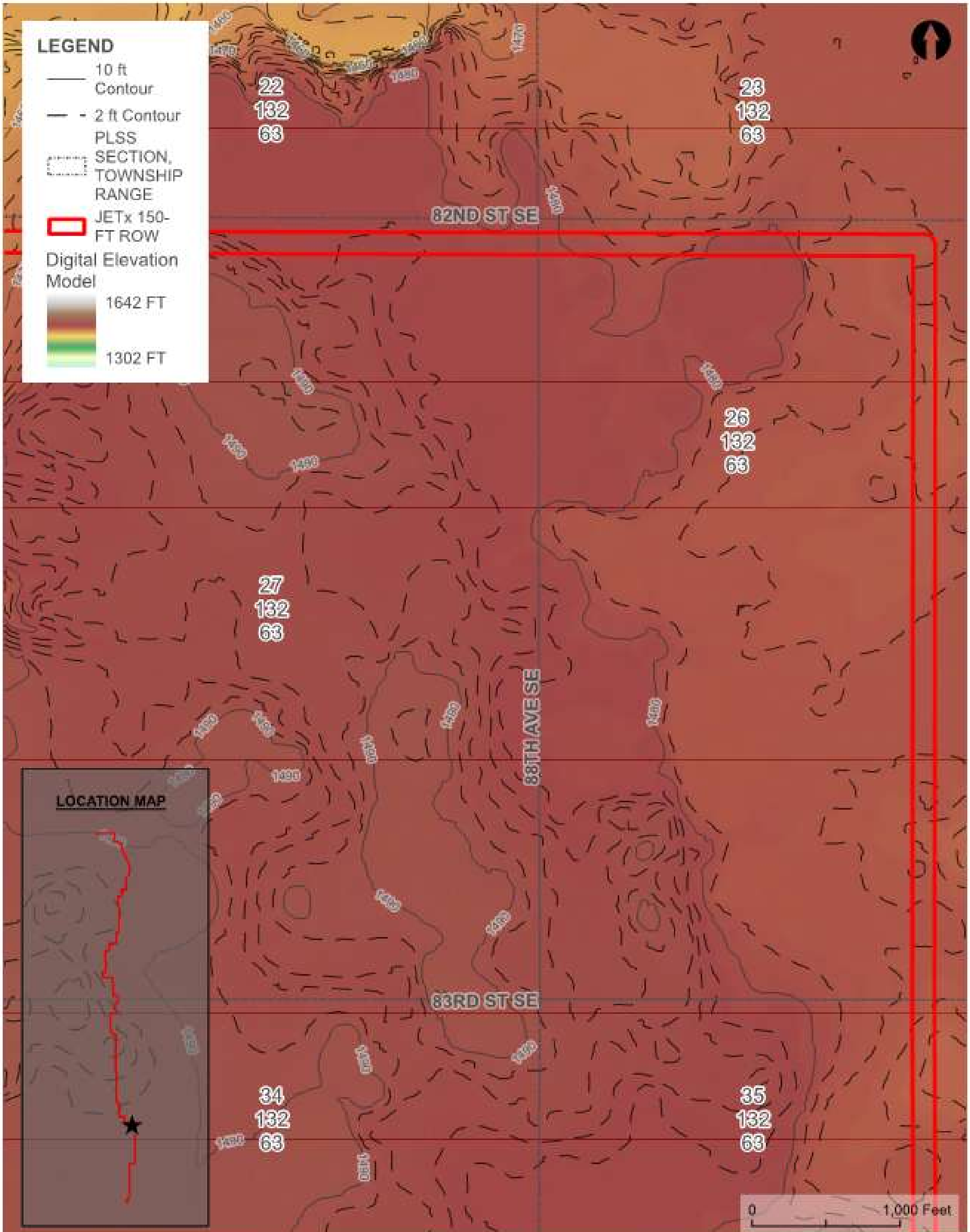
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

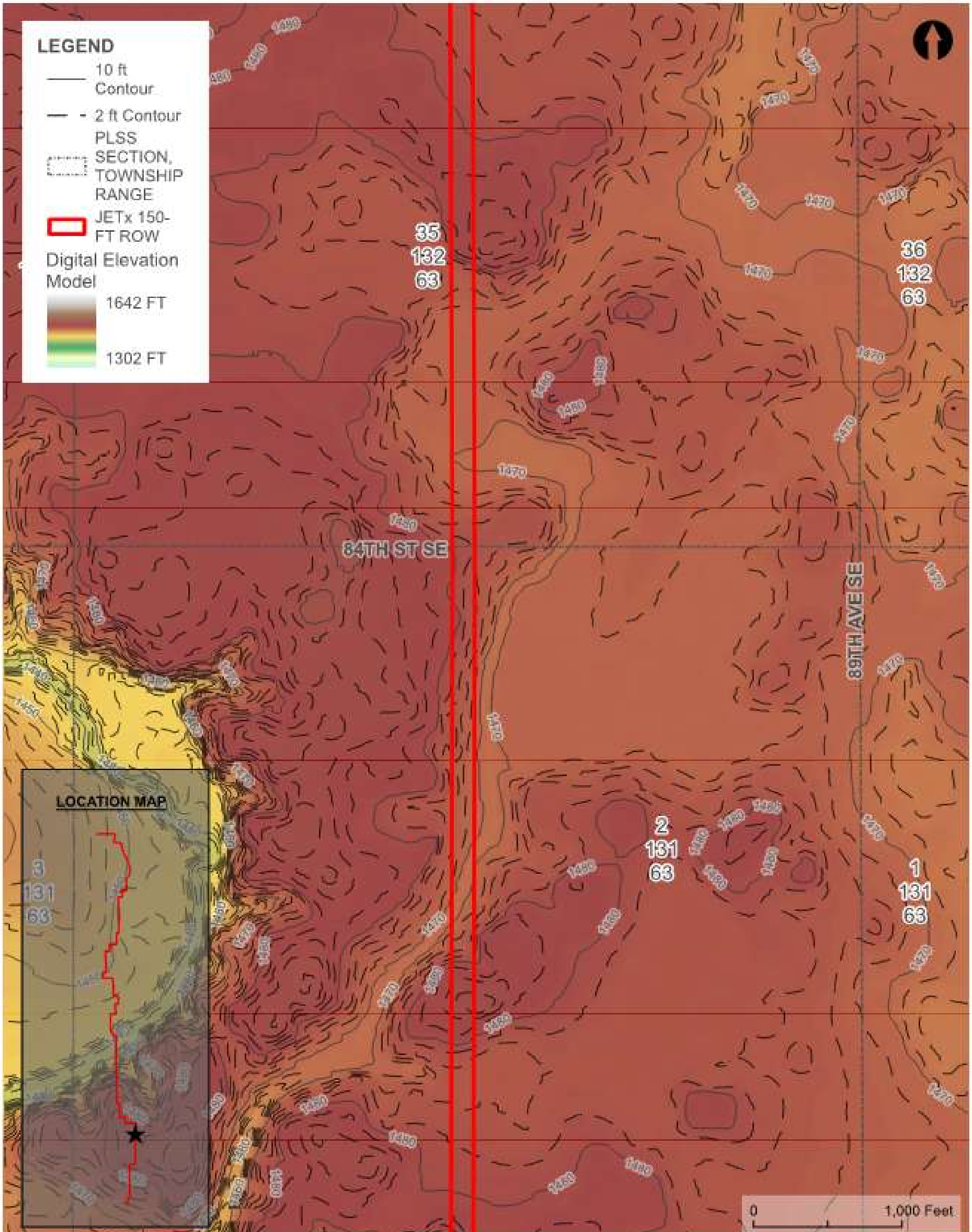


JETx

CONTOUR/TERRAIN MAP

FIGURE 5

PAGE 45 OF 55

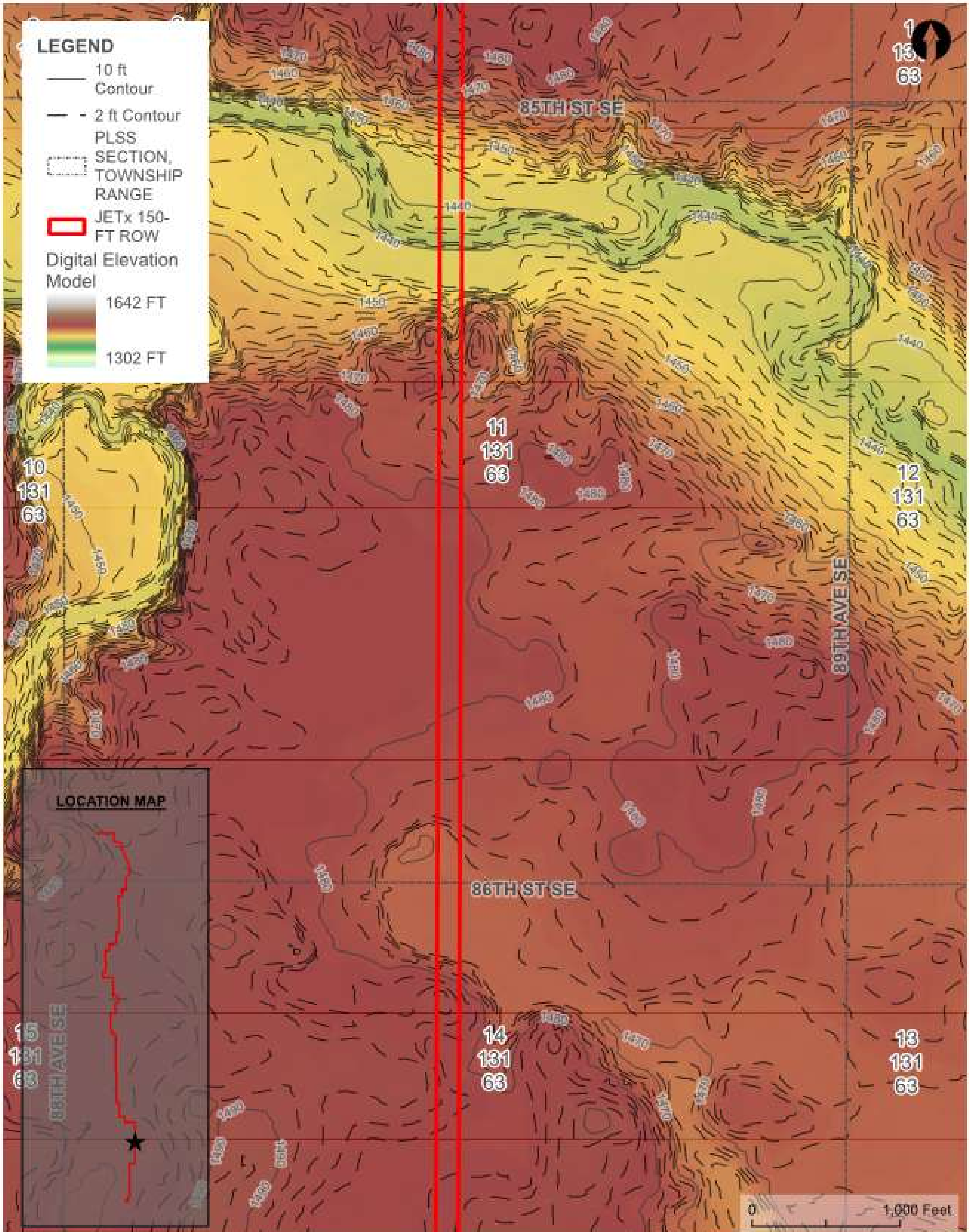


JETx

CONTOUR/TERRAIN MAP

FIGURE 5

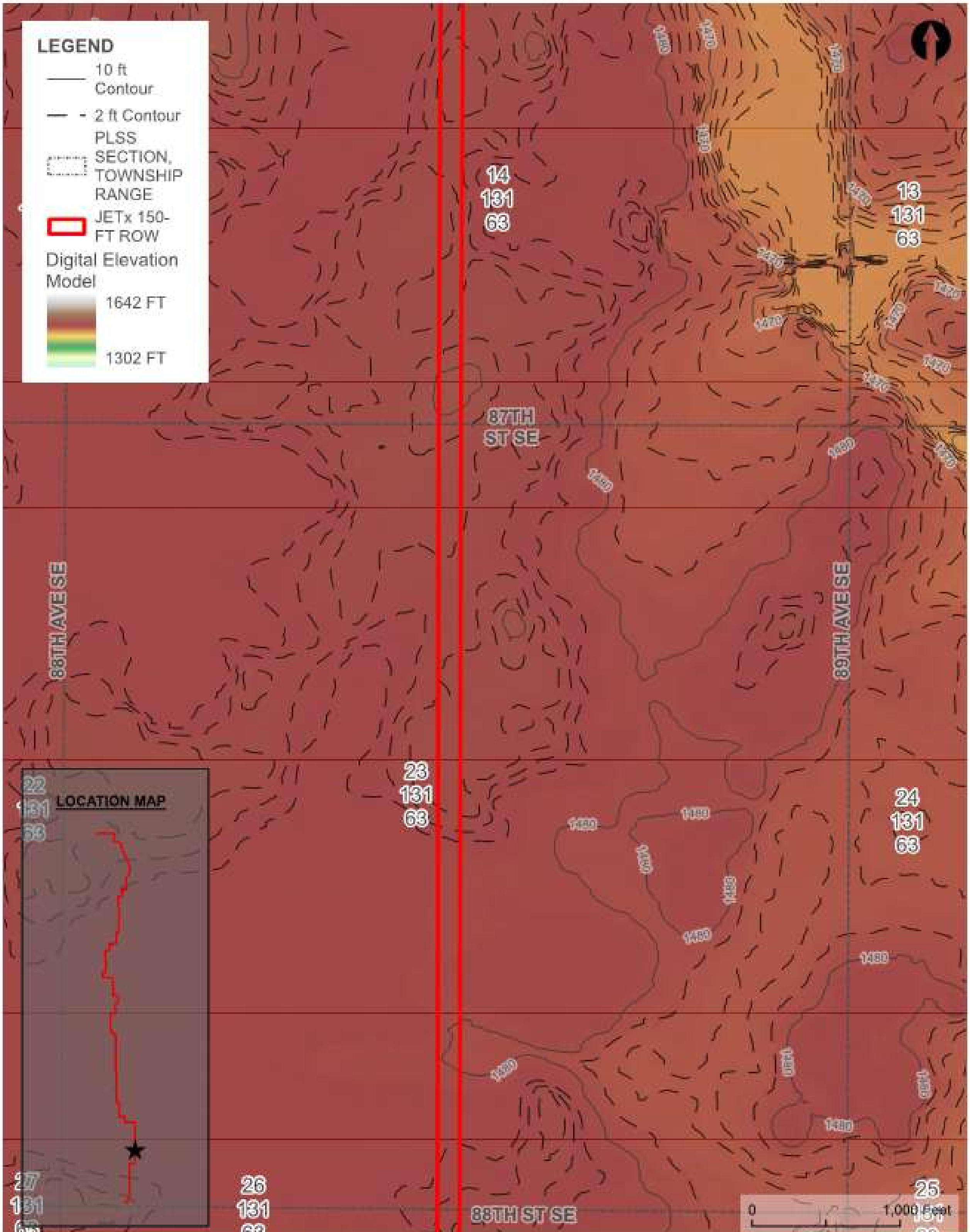
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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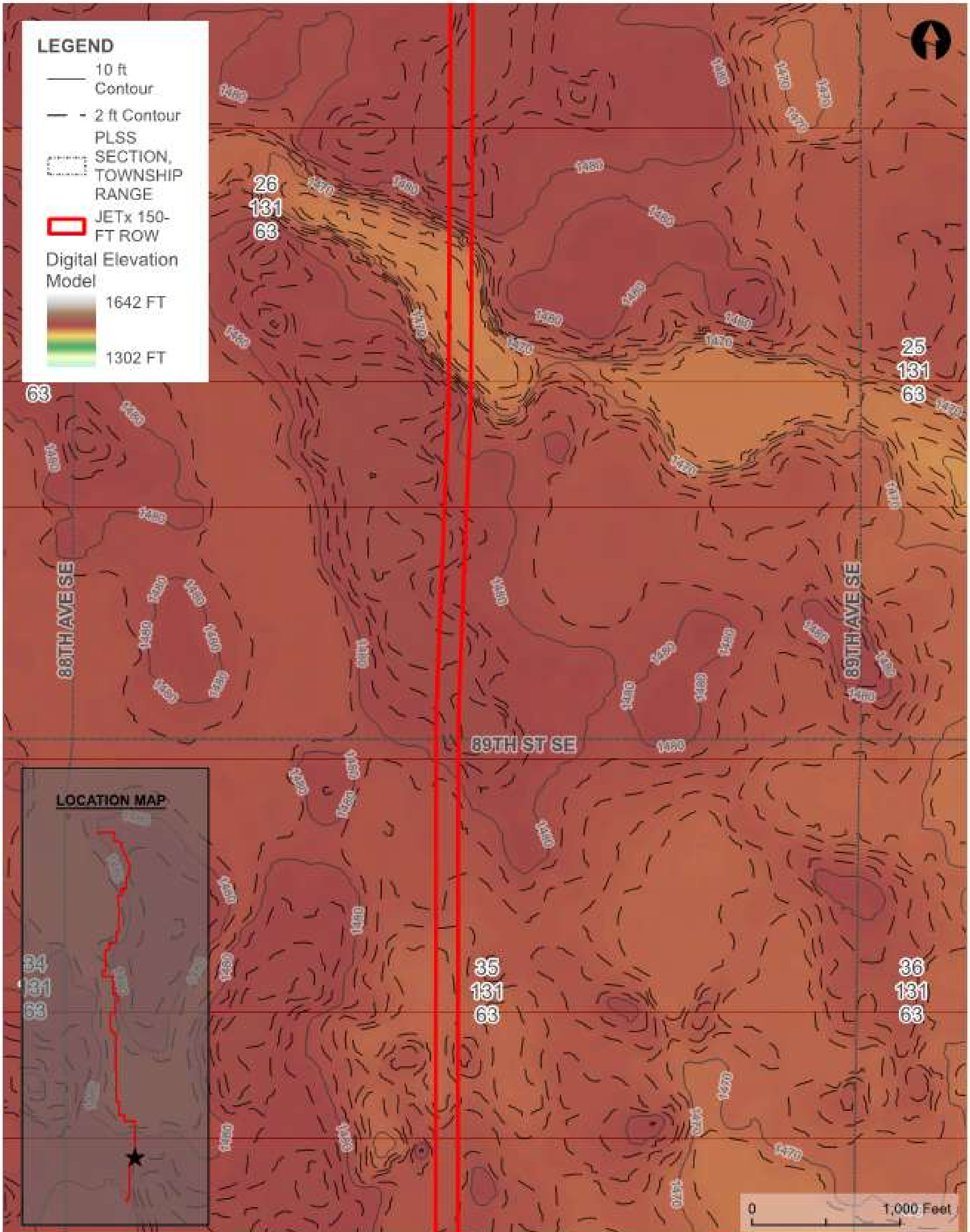
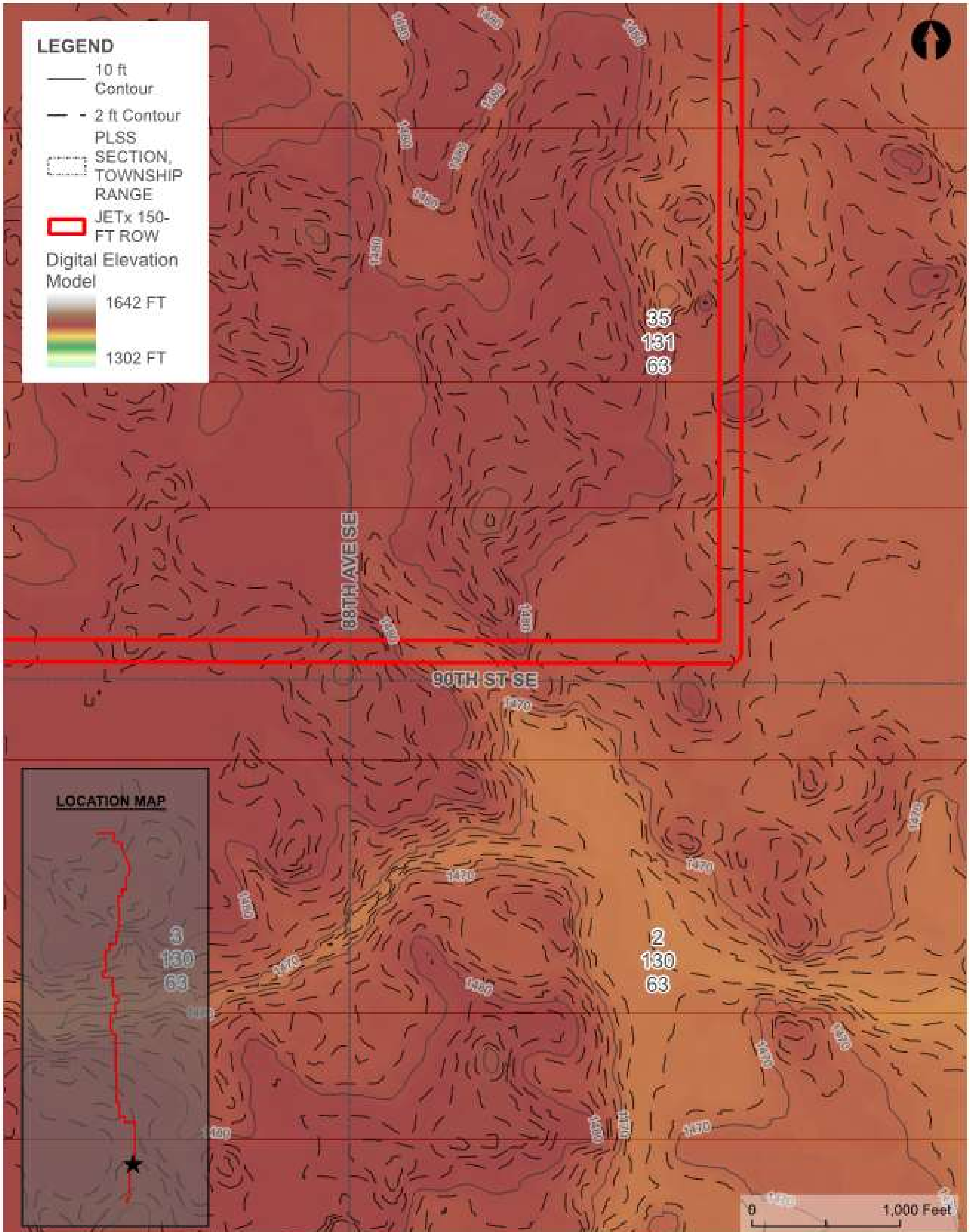


CONTOUR/TERRAIN MAP

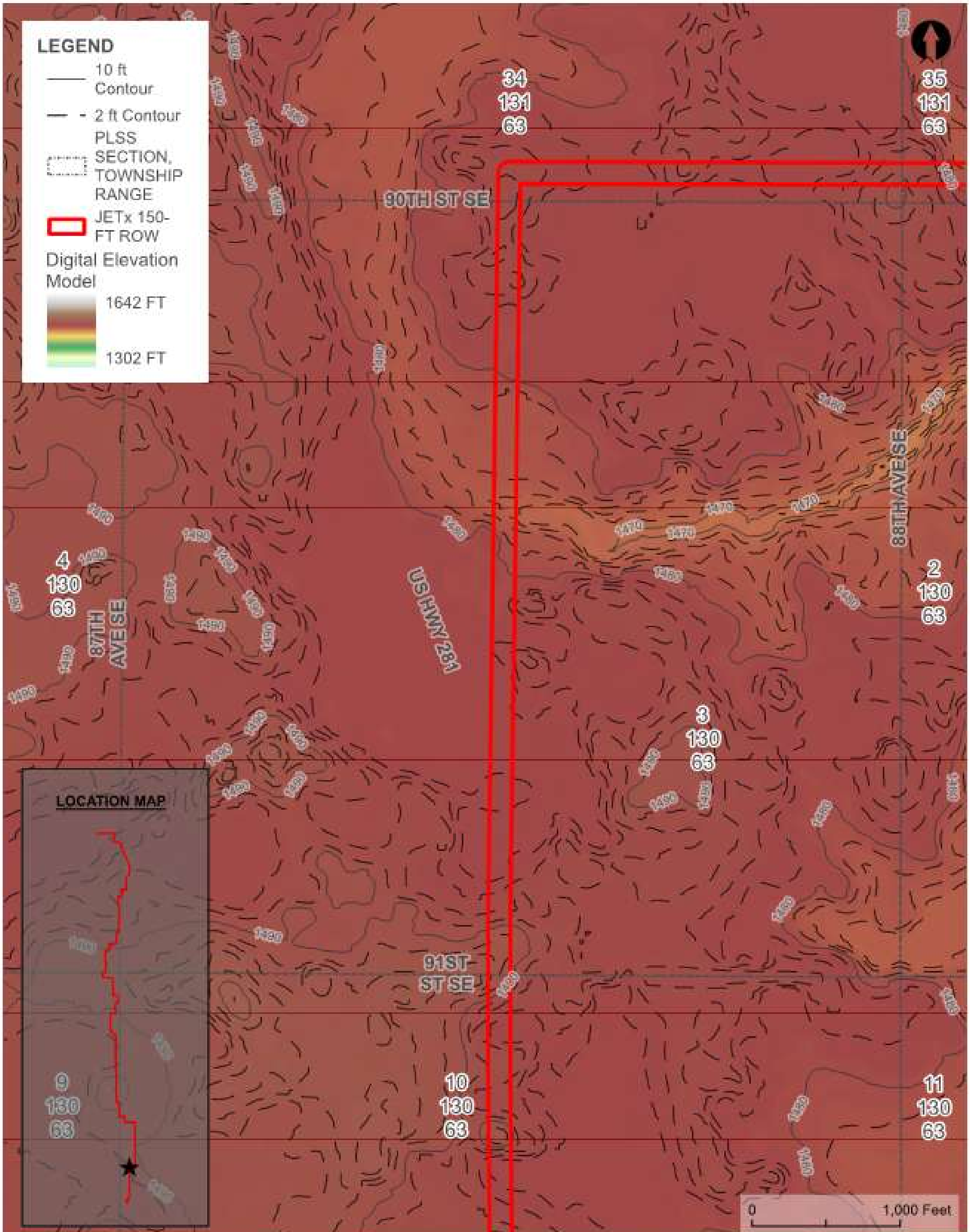
FIGURE 5



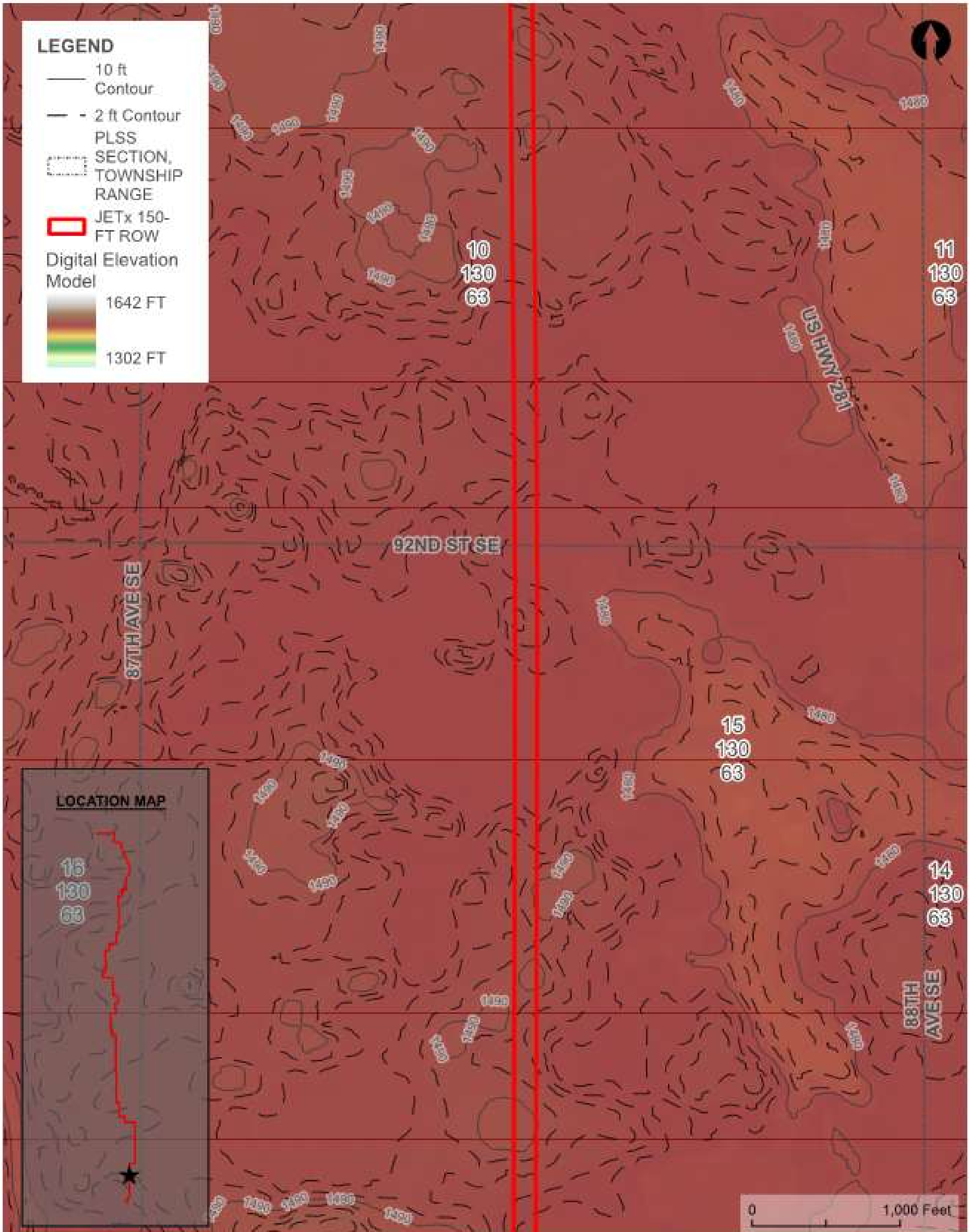
JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx
CONTOUR/TERRAIN MAP
FIGURE 5
PAGE 51 OF 55
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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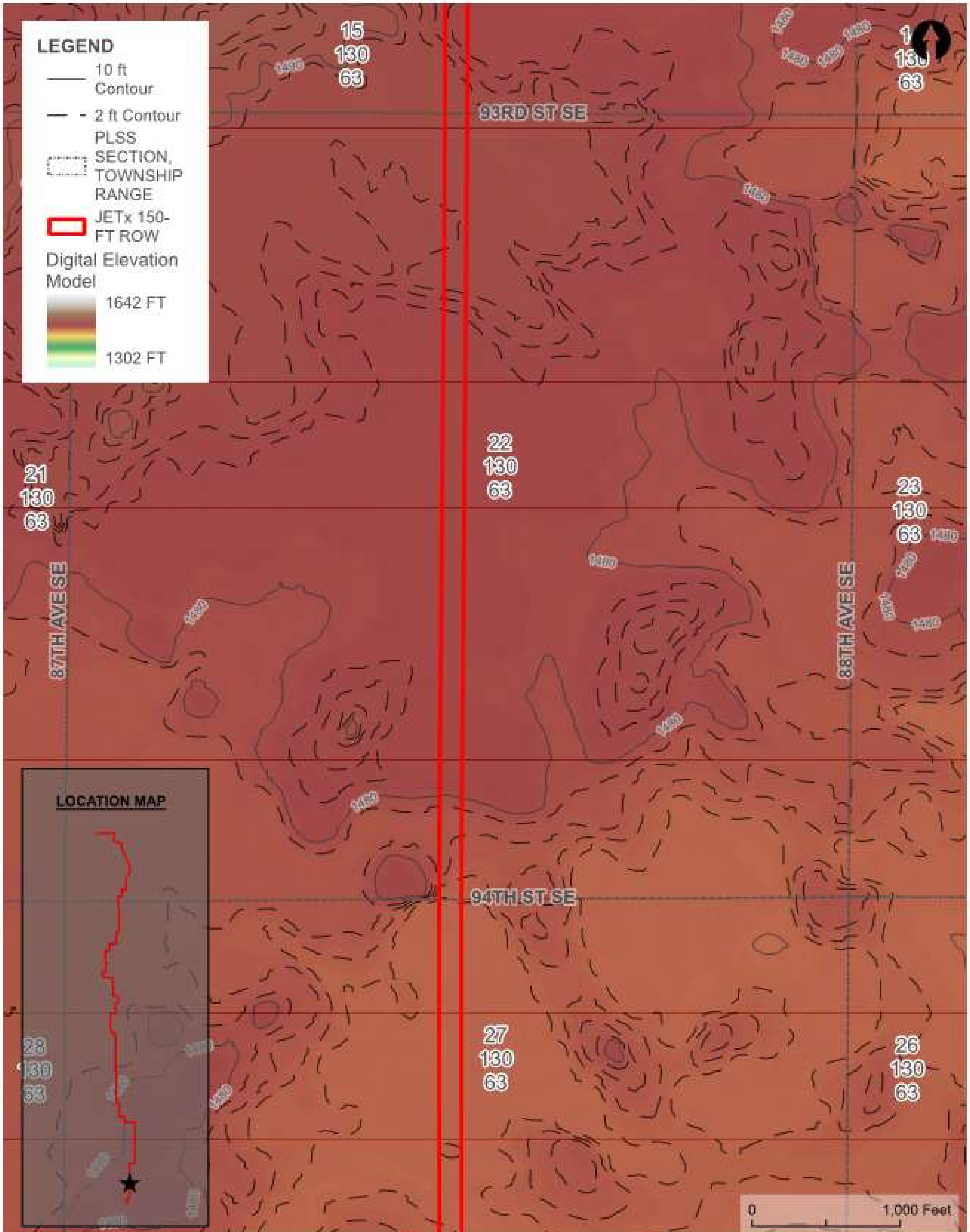
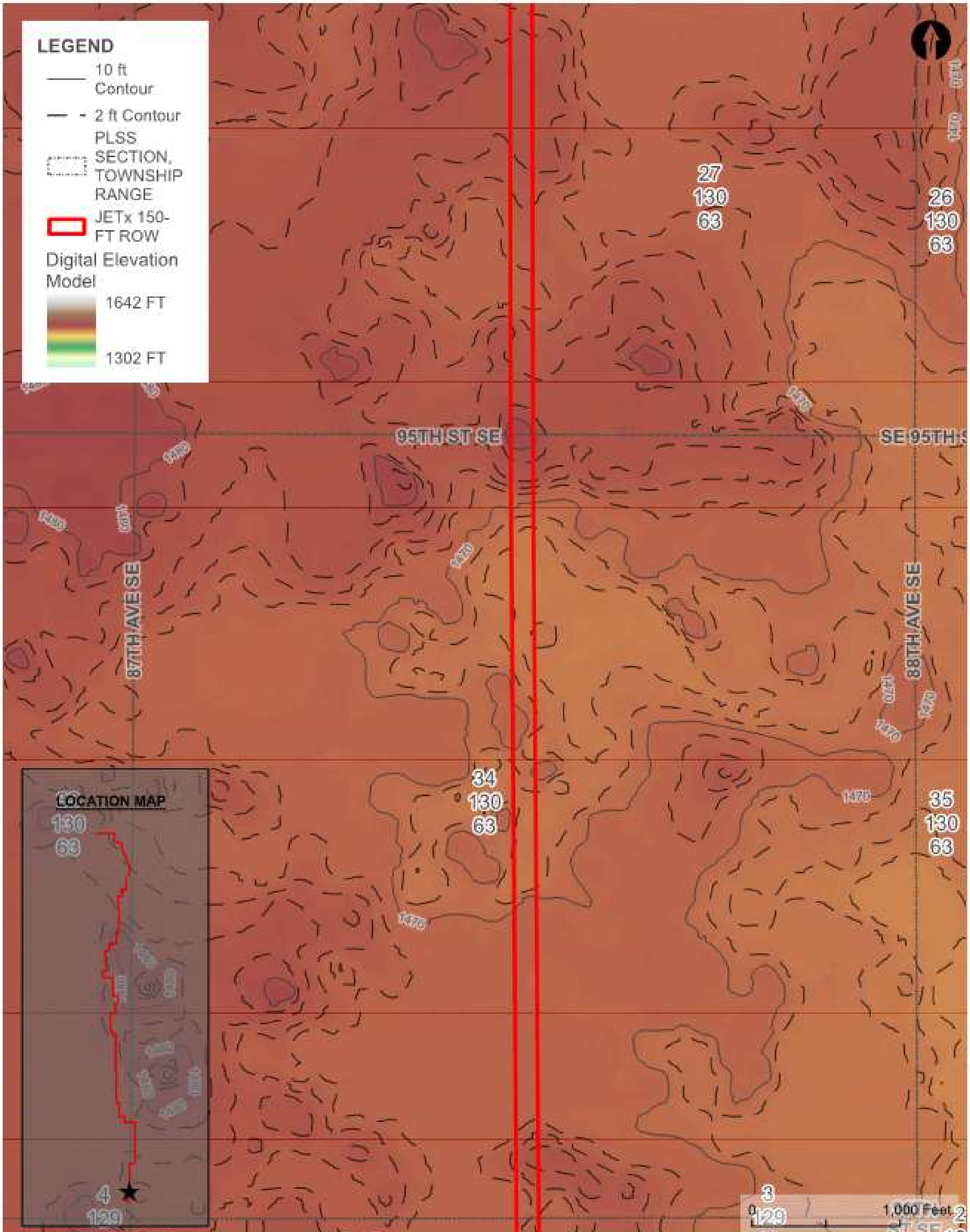
JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE



JETx

CONTOUR/TERRAIN MAP

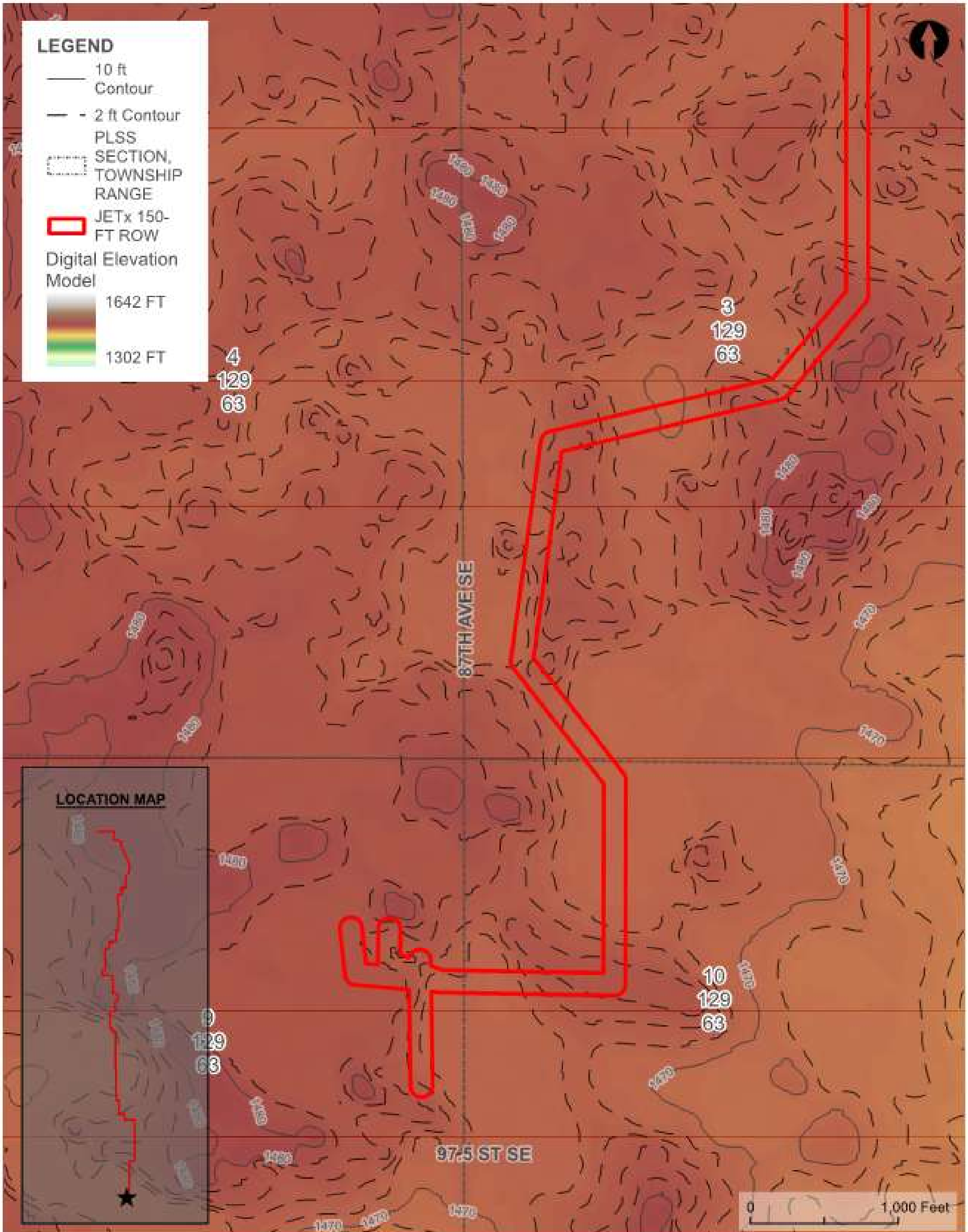
FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5



JETx

CONTOUR/TERRAIN MAP

FIGURE 5

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JETX TRANSMISSION LINE | JAMESTOWN TO ELLENDALE

Appendix C. Photo Log

Photo Log

	Photo 1 Observer(s): A. Brazeal Location: Upland Sampling Point A-W-013u Direction Photo is Taken: East Latitude: 47.030170 Longitude: -98.651482
	Photo 2 Observer(s): A. Brazeal Location: Wetland Sampling Point A-W-013w Direction Photo is Taken: East Latitude: 47.030178 Longitude: -98.651412
	Photo 3 Observer(s): A. Brazeal Location: Upland Sampling Point A-W-015u Direction Photo is Taken: Southeast Latitude: 47.030185 Longitude: -98.641900

Photo Log

Photo 4

Observer(s): A. Brazeal

Location: Wetland Sampling Point A-W-015w

Direction Photo is Taken: Southeast

Latitude: 47.030162

Longitude: -98.641857

Photo 5

Observer(s): A. Brazeal

Location: Upland Sampling Point A-W-189u

Direction Photo is Taken: East

Latitude: 46.872300

Longitude: -98.584540

Photo 6

Observer(s): A. Brazeal

Location: Wetland Sampling Point A-W-189w

Direction Photo is Taken: East

Latitude: 46.872280

Longitude: -98.584489

Photo Log

<table>
<tr><td></td><td>Photo 7

Observer(s): A. Brazeal

Location: Upland Sampling Point A-W-190u

Direction Photo is Taken: North

Latitude: 46.870074

Longitude: -98.584893</td></tr>
<tr><td></td><td>Photo 8

Observer(s): A. Brazeal

Location: Wetland Sampling Point A-W-190w

Direction Photo is Taken: North

Latitude: 46.870101

Longitude: -98.584872</td></tr>
<tr><td></td><td>Photo 9

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-ab-023u

Direction Photo is Taken: South

Latitude: 46.363531

Longitude: -98.609799</td></tr>
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Photo Log

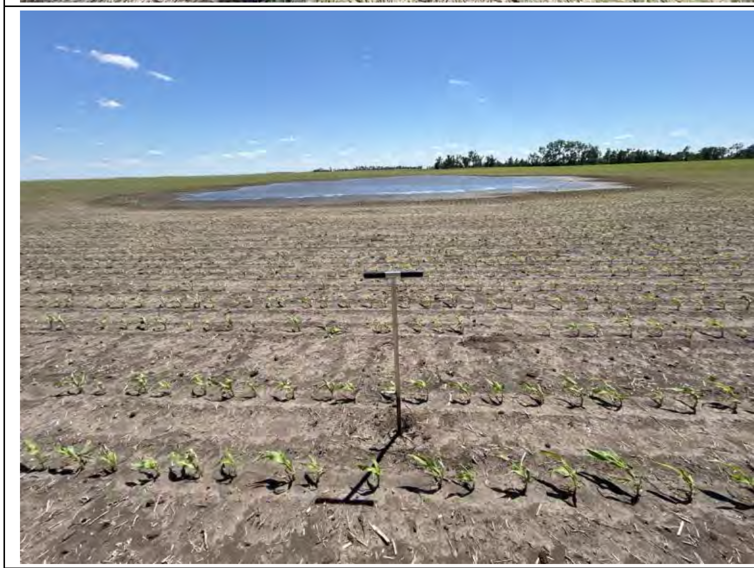
	Photo 10 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-023w Direction Photo is Taken: South Latitude: 46.363478 Longitude: -98.609800
	Photo 11 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-028u Direction Photo is Taken: South Latitude: 46.227202 Longitude: -98.580698
	Photo 12 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-028w Direction Photo is Taken: South Latitude: 46.227053 Longitude: -98.580674

Photo Log

	Photo 13 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-029u Direction Photo is Taken: West Latitude: 46.226525 Longitude: -98.546215
	Photo 14 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-029w Direction Photo is Taken: West Latitude: 46.227124 Longitude: -98.546398
	Photo 15 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-030u Direction Photo is Taken: East Latitude: 46.227189 Longitude: -98.546041

Photo Log

Photo 16

Observer(s): A. Brazeal

Location: Wetland Sampling Point FD-ab-030w

Direction Photo is Taken: East

Latitude: 46.227095

Longitude: -98.545140

Photo 17

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-ab-031u

Direction Photo is Taken: North

Latitude: 46.226740

Longitude: -98.544855

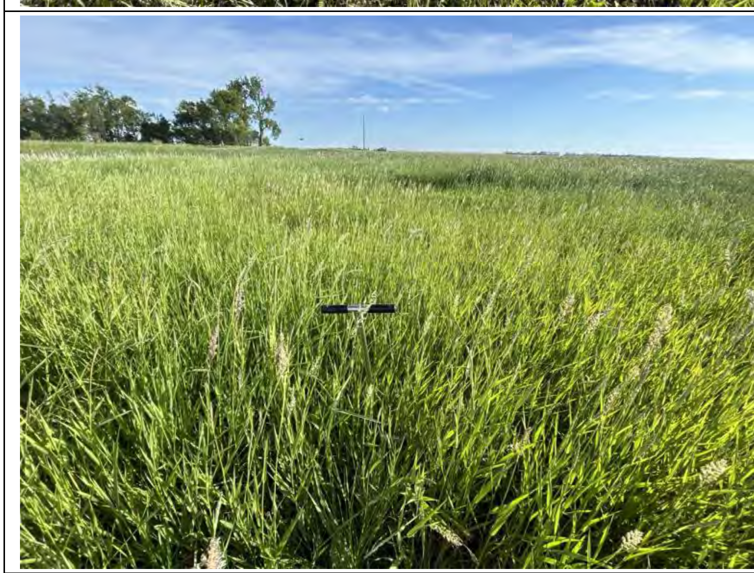


Photo 18

Observer(s): A. Brazeal

Location: Wetland Sampling Point FD-ab-031w

Direction Photo is Taken: North

Latitude: 46.225999

Longitude: -98.544855

Photo Log

Photo 19

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-ab-034u

Direction Photo is Taken: Southeast

Latitude: 46.006849

Longitude: -98.564780

Photo 20

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-ab-036u

Direction Photo is Taken: Southwest

Latitude: 46.935489

Longitude: -98.548981

Photo 21

Observer(s): A. Brazeal

Location: Wetland Sampling Point FD-ab-036w

Direction Photo is Taken: Southwest

Latitude: 46.935481

Longitude: -98.549019

Photo Log

	Photo 22 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-037u Direction Photo is Taken: Southeast Latitude: 46.935434 Longitude: -98.548770
	Photo 23 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-037w Direction Photo is Taken: Southeast Latitude: 46.935412 Longitude: -98.548767
	Photo 24 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-041u Direction Photo is Taken: Southeast Latitude: 46.921094 Longitude: -98.550657

Photo Log

	Photo 25 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-041w Direction Photo is Taken: Southeast Latitude: 46.921062 Longitude: -98.550582
	Photo 26 Observer(s): A. Brazeal Location: Upland Sampling Point FD-ab-046u Direction Photo is Taken: East Latitude: 46.729514 Longitude: -98.607365
	Photo 27 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-046w Direction Photo is Taken: East Latitude: 46.729503 Longitude: -98.607337

Photo Log

	Photo 28 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-ab-34w Direction Photo is Taken: Southeast Latitude: 46.007087 Longitude: -98.564904
	Photo 29 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-003 u Direction Photo is Taken: Southwest Latitude: 46.247357 Longitude: -98.597026
	Photo 30 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-003 w Direction Photo is Taken: South Latitude: 46.247290 Longitude: -98.597151

Photo Log

	Photo 31 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-004 u Direction Photo is Taken: South Latitude: 46.242969 Longitude: -98.597296
	Photo 32 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-004 w Direction Photo is Taken: Southeast Latitude: 46.242923 Longitude: -98.597323
	Photo 33 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-006 u Direction Photo is Taken: West Latitude: 46.226939 Longitude: -98.593208

Photo Log

	Photo 34 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-006 w Direction Photo is Taken: West Latitude: 46.227026 Longitude: -98.593354
	Photo 35 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-007 u Direction Photo is Taken: East Latitude: 46.227006 Longitude: -98.588455
	Photo 36 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-007 w Direction Photo is Taken: East Latitude: 46.226974 Longitude: -98.588352

Photo Log

	Photo 37 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-008 u Direction Photo is Taken: West Latitude: 46.226953 Longitude: -98.576059
	Photo 38 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-008 w Direction Photo is Taken: West Latitude: 46.226954 Longitude: -98.576113
	Photo 39 Observer(s): A. Brazeal Location: Upland Sampling Point FD-GR-010 u Direction Photo is Taken: West Latitude: 46.227087 Longitude: -98.549128

Photo Log

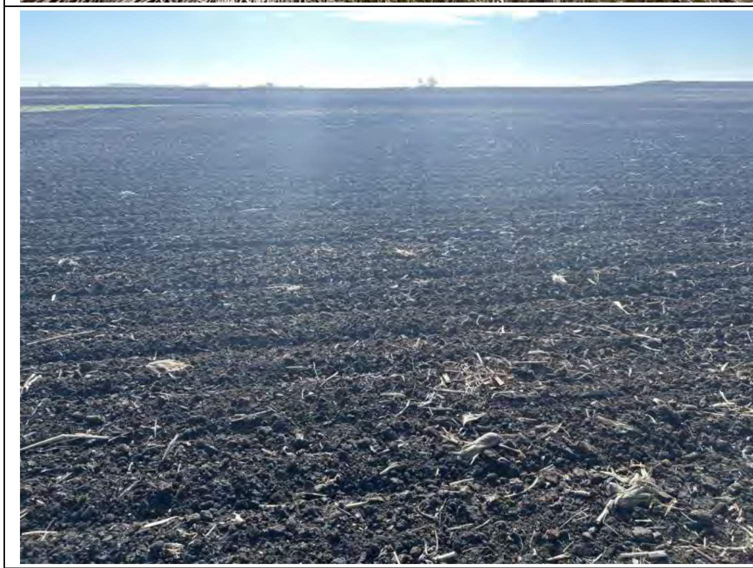
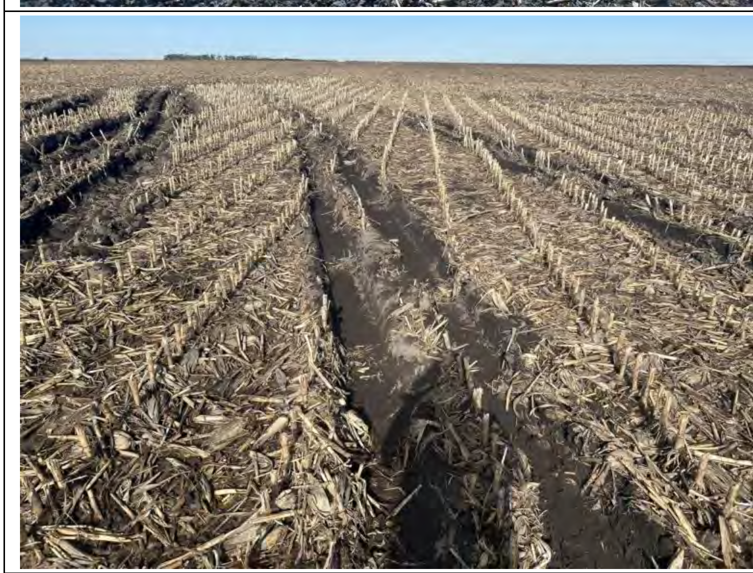
	Photo 40 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-GR-010 w Direction Photo is Taken: West Latitude: 46.227090 Longitude: -98.549242
	Photo 41 Observer(s): A. Brazeal Location: Upland Sampling Point FD-rk-007u Direction Photo is Taken: East Latitude: 46.506901 Longitude: -98.631469
	Photo 42 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-rk-007w Direction Photo is Taken: West Latitude: 46.506894 Longitude: -98.631566

Photo Log

Photo 43

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-rk-009u

Direction Photo is Taken: South

Latitude: 46.500324

Longitude: -98.632009

Photo 44

Observer(s): A. Brazeal

Location: Wetland Sampling Point FD-rk-009w

Direction Photo is Taken: Southeast

Latitude: 46.500262

Longitude: -98.631923

Photo 45

Observer(s): A. Brazeal

Location: Upland Sampling Point FD-rk-010-U

Direction Photo is Taken: South

Latitude: 46.498492

Longitude: -98.631569

Photo Log

	Photo 46 Observer(s): A. Brazeal Location: Upland Sampling Point FD-rk-012u Direction Photo is Taken: South Latitude: 46.492905 Longitude: -98.631607
	Photo 47 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-rk-012w Direction Photo is Taken: South Latitude: 46.492799 Longitude: -98.631513
	Photo 48 Observer(s): A. Brazeal Location: Wetland Sampling Point FD-rk-01-W Direction Photo is Taken: South Latitude: 46.498400 Longitude: -98.631564

Photo Log

	Photo 51 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-001 Direction Photo is Taken: Southwest Latitude: 46.302473 Longitude: -98.609608
	Photo 52 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-002 Direction Photo is Taken: North Latitude: 46.518610 Longitude: -98.631420
	Photo 53 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-003 Direction Photo is Taken: West Latitude: 46.524573 Longitude: -98.631442

Photo Log

	Photo 54 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-004 Direction Photo is Taken: Southwest Latitude: 46.514544 Longitude: -98.631431
	Photo 55 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-005 Direction Photo is Taken: Southwest Latitude: 46.512529 Longitude: -98.631465
	Photo 56 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-005 Direction Photo is Taken: West Latitude: 46.506398 Longitude: -98.631422

Photo Log

	Photo 57 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-006 Direction Photo is Taken: South Latitude: 46.356368 Longitude: -98.608752
	Photo 58 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-006 Direction Photo is Taken: East Latitude: 46.249333 Longitude: -98.597195
	Photo 59 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-007 Direction Photo is Taken: East Latitude: 46.306078 Longitude: -98.609352

Photo Log

	Photo 60 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-008 Direction Photo is Taken: West Latitude: 46.198321 Longitude: -98.534970
	Photo 61 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-009 Direction Photo is Taken: South Latitude: 46.165468 Longitude: -98.535479
	Photo 62 Observer(s): A. Brazeal Location: Upland Sampling Point NO-AB-010 Direction Photo is Taken: Northeast Latitude: 46.165837 Longitude: -98.535058

Photo Log

	Photo 63 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-011 Direction Photo is Taken: East Latitude: 46.163661 Longitude: -98.535144
	Photo 64 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-012 Direction Photo is Taken: West Latitude: 46.212450 Longitude: -98.534994
	Photo 65 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-013 Direction Photo is Taken: North Latitude: 46.086367 Longitude: -98.557261

Photo Log

	Photo 66 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-014 Direction Photo is Taken: West Latitude: 46.082841 Longitude: -98.557668
	Photo 67 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-015 Direction Photo is Taken: East Latitude: 46.103814 Longitude: -98.557187
	Photo 68 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-016 Direction Photo is Taken: Northeast Latitude: 46.006088 Longitude: -98.564448

Photo Log

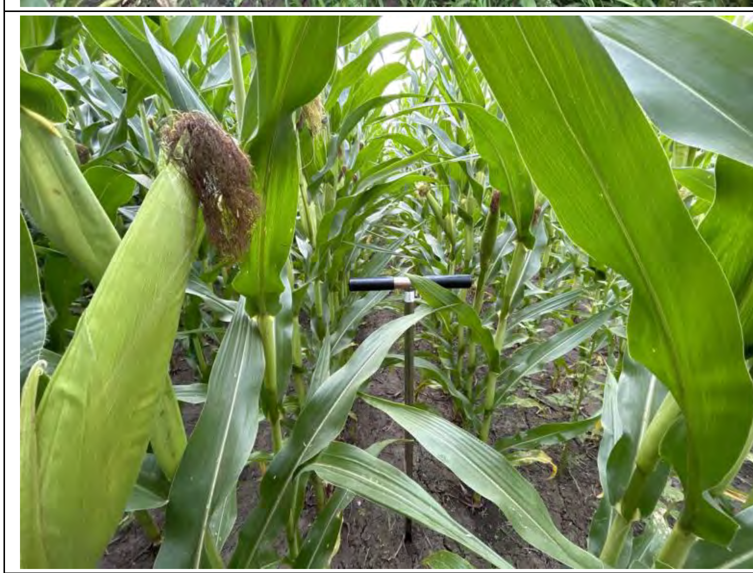
	Photo 69 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-017 Direction Photo is Taken: West Latitude: 46.689005 Longitude: -98.650199
	Photo 70 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-018 Direction Photo is Taken: North Latitude: 46.651492 Longitude: -98.650486
	Photo 71 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-019 Direction Photo is Taken: South Latitude: 46.651123 Longitude: -98.650426

Photo Log

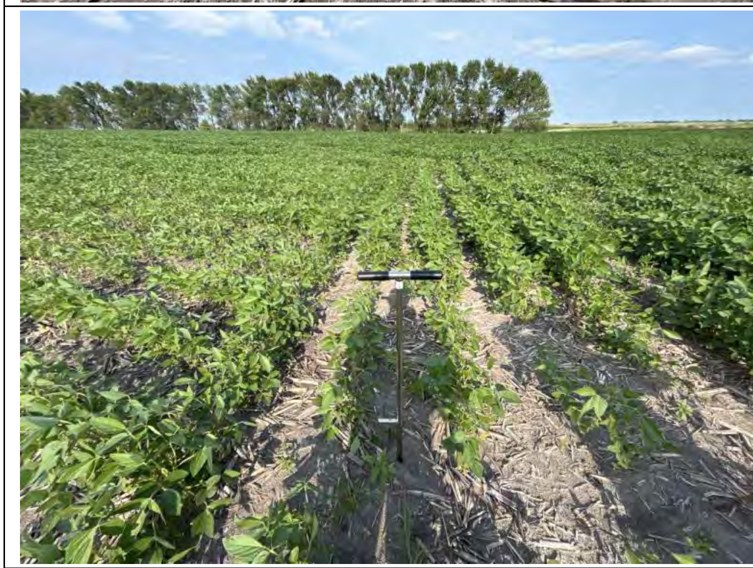
	Photo 72 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-020 Direction Photo is Taken: West Latitude: 46.560725 Longitude: -98.600484
	Photo 73 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-021 Direction Photo is Taken: East Latitude: 46.580523 Longitude: -98.611125
	Photo 74 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-022 Direction Photo is Taken: West Latitude: 46.580273 Longitude: -98.610827

Photo Log

	Photo 77 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-024 Direction Photo is Taken: North Latitude: 46.466746 Longitude: -98.610135
	Photo 78 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-025 Direction Photo is Taken: North Latitude: 46.123542 Longitude: -98.536226
	Photo 79 Observer(s): A. Brazeal Location: Upland Sampling Point No-ab-08 Direction Photo is Taken: Southeast Latitude: 46.305930 Longitude: -98.609116

Photo Log

Photo 80

Observer(s): A. Brazeal

Location: Upland Sampling Point NO-GR-001

Direction Photo is Taken: South

Latitude: 46.376836

Longitude: -98.609633

Photo 81

Observer(s): A. Brazeal

Location: Upland Sampling Point NO-GR-002

Direction Photo is Taken: Northeast

Latitude: 46.309883

Longitude: -98.609426

Photo 82

Observer(s): A. Brazeal

Location: Upland Sampling Point NO-GR-003

Direction Photo is Taken: East

Latitude: 46.256211

Longitude: -98.597015

Photo Log

	Photo 83 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-005 Direction Photo is Taken: South Latitude: 46.227290 Longitude: -98.571331
	Photo 84 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-006 Direction Photo is Taken: Northwest Latitude: 46.227315 Longitude: -98.566388
	Photo 85 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-007 Direction Photo is Taken: South Latitude: 46.198325 Longitude: -98.534505

Photo Log

	Photo 86 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-008 Direction Photo is Taken: North Latitude: 46.188617 Longitude: -98.534897
	Photo 87 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-009 Direction Photo is Taken: West Latitude: 46.178309 Longitude: -98.534801
	Photo 88 Observer(s): A. Brazeal Location: Upland Sampling Point NO-GR-010 Direction Photo is Taken: Southeast Latitude: 46.084693 Longitude: -98.557220

Photo Log

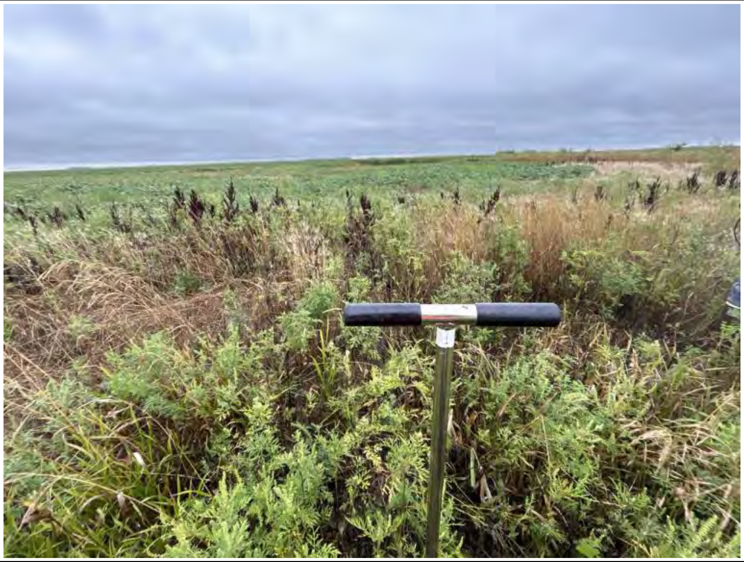
	Photo 89 Observer(s): A. Brazeal Location: Upland Sampling Point OW-28u Direction Photo is Taken: East Latitude: 46.457043 Longitude: -98.610124
	Photo 90 Observer(s): A. Brazeal Location: Wetland Sampling Point OW-28w Direction Photo is Taken: East Latitude: 46.457141 Longitude: -98.610008
	Photo 93 Observer(s): A. Brazeal Location: Upland Sampling Point OW-44 u Direction Photo is Taken: Northeast Latitude: 46.194410 Longitude: -98.534745

Photo Log

	Photo 94 Observer(s): A. Brazeal Location: Wetland Sampling Point OW-44 w Direction Photo is Taken: North Latitude: 46.194428 Longitude: -98.534672
	Photo 95 Observer(s): A. Brazeal Location: Upland Sampling Point W-175u Direction Photo is Taken: East Latitude: 46.725502 Longitude: -98.607328
	Photo 96 Observer(s): A. Brazeal Location: Wetland Sampling Point W-175w Direction Photo is Taken: East Latitude: 46.725497 Longitude: -98.607293

Photo Log

	Photo 97 Observer(s): A. Brazeal Location: Upland Sampling Point W-205u Direction Photo is Taken: Southeast Latitude: 46.657161 Longitude: -98.650552
	Photo 98 Observer(s): A. Brazeal Location: Wetland Sampling Point W-205w Direction Photo is Taken: Southeast Latitude: 46.657126 Longitude: -98.650530
	Photo 99 Observer(s): A. Brazeal Location: Upland Sampling Point W-217u Direction Photo is Taken: East Latitude: 46.630230 Longitude: -98.621038

Photo Log

	Photo 100 Observer(s): A. Brazeal Location: Wetland Sampling Point W-217w Direction Photo is Taken: East Latitude: 46.630226 Longitude: -98.620935
	Photo 101 Observer(s): A. Brazeal Location: Upland Sampling Point W-218u Direction Photo is Taken: West Latitude: 46.630414 Longitude: -98.622870
	Photo 102 Observer(s): A. Brazeal Location: Wetland Sampling Point W-218w Direction Photo is Taken: West Latitude: 46.630421 Longitude: -98.622908

Photo Log

	Photo 103 Observer(s): A. Brazeal Location: Upland Sampling Point W-265u Direction Photo is Taken: West Latitude: 46.556472 Longitude: -98.610588
	Photo 104 Observer(s): A. Brazeal Location: Wetland Sampling Point W-265w Direction Photo is Taken: West Latitude: 46.556468 Longitude: -98.610658
	Photo 105 Observer(s): A. Brazeal Location: Upland Sampling Point W-274u Direction Photo is Taken: South Latitude: 46.544241 Longitude: -98.610885

Photo Log

	Photo 106 Observer(s): A. Brazeal Location: Wetland Sampling Point W-274w Direction Photo is Taken: South Latitude: 46.544188 Longitude: -98.610864
	Photo 107 Observer(s): A. Brazeal Location: Upland Sampling Point W-341 u Direction Photo is Taken: North Latitude: 46.376321 Longitude: -98.609999
	Photo 108 Observer(s): A. Brazeal Location: Wetland Sampling Point W-341 w Direction Photo is Taken: North Latitude: 46.376509 Longitude: -98.610024

Photo Log

	Photo 109 Observer(s): A. Brazeal Location: Upland Sampling Point W-343 u Direction Photo is Taken: South Latitude: 46.376497 Longitude: -98.609618
	Photo 110 Observer(s): A. Brazeal Location: Wetland Sampling Point W-343 w Direction Photo is Taken: South Latitude: 46.376337 Longitude: -98.609707
	Photo 111 Observer(s): A. Brazeal Location: Upland Sampling Point W-345 u Direction Photo is Taken: North Latitude: 46.375267 Longitude: -98.610089

Photo Log

	Photo 112 Observer(s): A. Brazeal Location: Wetland Sampling Point W-345 w Direction Photo is Taken: North Latitude: 46.375351 Longitude: -98.610079
	Photo 113 Observer(s): A. Brazeal Location: Upland Sampling Point W-383 u Direction Photo is Taken: West Latitude: 46.295049 Longitude: -98.609282
	Photo 114 Observer(s): A. Brazeal Location: Wetland Sampling Point W-383 w Direction Photo is Taken: Northwest Latitude: 46.295034 Longitude: -98.609551

Photo Log

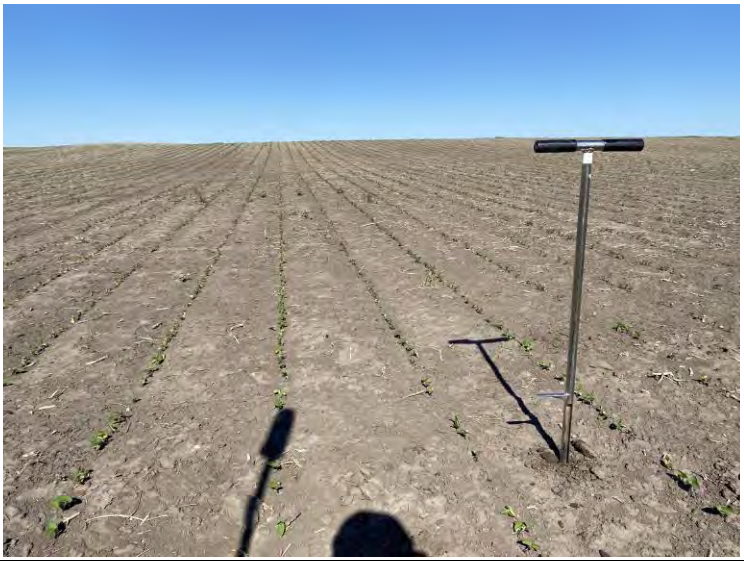
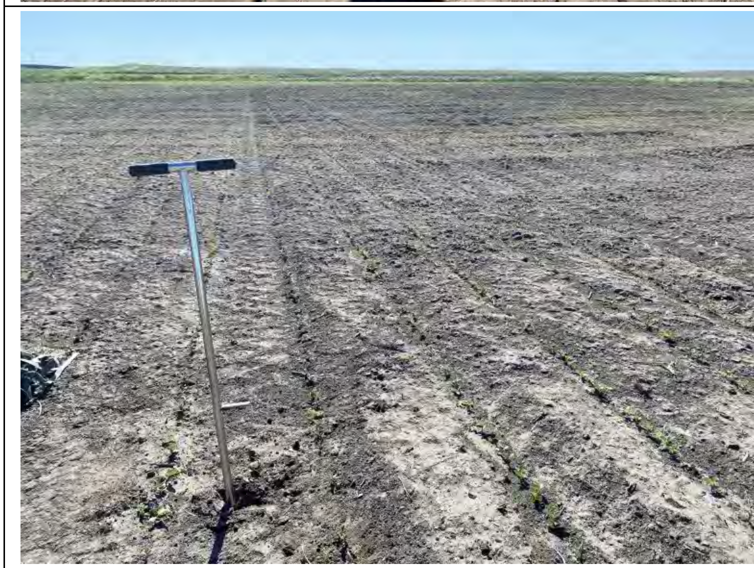
	Photo 115 Observer(s): A. Brazeal Location: Upland Sampling Point W-399 u Direction Photo is Taken: West Latitude: 46.282184 Longitude: -98.598029
	Photo 116 Observer(s): A. Brazeal Location: Wetland Sampling Point W-399 w Direction Photo is Taken: East Latitude: 46.282184 Longitude: -98.597795
	Photo 117 Observer(s): A. Brazeal Location: Upland Sampling Point W-419u Direction Photo is Taken: East Latitude: 46.227082 Longitude: -98.537862

Photo Log

	Photo 118 Observer(s): A. Brazeal Location: Wetland Sampling Point W-419w Direction Photo is Taken: East Latitude: 46.227071 Longitude: -98.537776
	Photo 119 Observer(s): A. Brazeal Location: Upland Sampling Point W-420u Direction Photo is Taken: North Latitude: 46.215420 Longitude: -98.534663
	Photo 120 Observer(s): A. Brazeal Location: Wetland Sampling Point W-420w Direction Photo is Taken: North Latitude: 46.215502 Longitude: -98.534647

Photo Log

	Photo 121 Observer(s): A. Brazeal Location: Upland Sampling Point W-421 u Direction Photo is Taken: South Latitude: 46.213515 Longitude: -98.534558
	Photo 122 Observer(s): A. Brazeal Location: Wetland Sampling Point W-421w Direction Photo is Taken: South Latitude: 46.213465 Longitude: -98.534510
	Photo 123 Observer(s): A. Brazeal Location: Upland Sampling Point W-439u Direction Photo is Taken: West Latitude: 46.171701 Longitude: -98.534778

Photo Log

	Photo 124 Observer(s): A. Brazeal Location: Wetland Sampling Point W-439w Direction Photo is Taken: West Latitude: 46.171579 Longitude: -98.535310
	Photo 125 Observer(s): A. Brazeal Location: Wetland Sampling Point W-445w Direction Photo is Taken: South Latitude: 46.164690 Longitude: -98.535526
	Photo 126 Observer(s): A. Brazeal Location: Upland Sampling Point W-455u Direction Photo is Taken: South Latitude: 46.164765 Longitude: -98.535537

Photo Log

	Photo 127 Observer(s): A. Brazeal Location: Upland Sampling Point W-521u Direction Photo is Taken: West Latitude: 46.086258 Longitude: -98.557611
	Photo 128 Observer(s): A. Brazeal Location: Wetland Sampling Point W-521w Direction Photo is Taken: West Latitude: 46.086290 Longitude: -98.557648
	Photo 129 Observer(s): A. Brazeal Location: Wetland Sampling Point W-540w Direction Photo is Taken: South Latitude: 46.064268 Longitude: -98.557905

Photo Log

	Photo 130 Observer(s): A. Brazeal Location: Upland Sampling Point W-541u Direction Photo is Taken: East Latitude: 46.061496 Longitude: -98.557548
	Photo 131 Observer(s): A. Brazeal Location: Wetland Sampling Point W-541w Direction Photo is Taken: East Latitude: 46.061493 Longitude: -98.557517
	Photo 132 Observer(s): A. Brazeal Location: Upland Sampling Point W-542u Direction Photo is Taken: South Latitude: 46.061594 Longitude: -98.557885

Photo Log

	Photo 133 Observer(s): A. Brazeal Location: Wetland Sampling Point W-542w Direction Photo is Taken: South Latitude: 46.061559 Longitude: -98.557854
	Photo 134 Observer(s): A. Brazeal Location: Wetland Sampling Point W-545 w Direction Photo is Taken: East Latitude: 46.054085 Longitude: -98.557674
	Photo 135 Observer(s): A. Brazeal Location: Upland Sampling Point W-545u Direction Photo is Taken: East Latitude: 46.054175 Longitude: -98.557801

Photo Log

	Photo 136 Observer(s): A. Brazeal Location: Upland Sampling Point W-549u Direction Photo is Taken: South Latitude: 46.052390 Longitude: -98.557913
	Photo 137 Observer(s): A. Brazeal Location: Wetland Sampling Point W-549w Direction Photo is Taken: South Latitude: 46.052368 Longitude: -98.557942
	Photo 138 Observer(s): A. Brazeal Location: Upland Sampling Point W-550u Direction Photo is Taken: South Latitude: 46.064419 Longitude: -98.557911

Photo Log

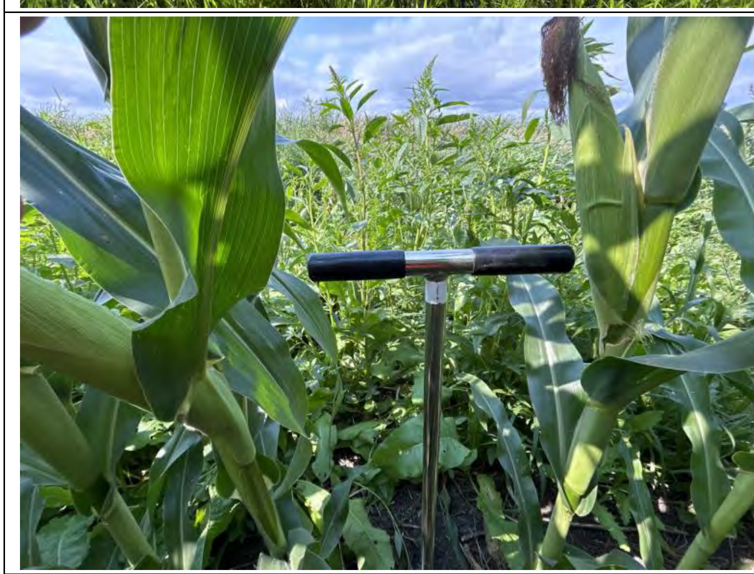
	Photo 139 Observer(s): A. Brazeal Location: Upland Sampling Point W-550u Direction Photo is Taken: East Latitude: 46.051931 Longitude: -98.557745
	Photo 140 Observer(s): A. Brazeal Location: Wetland Sampling Point W-550w Direction Photo is Taken: East Latitude: 46.051918 Longitude: -98.557688
	Photo 141 Observer(s): A. Brazeal Location: Upland Sampling Point W-587u Direction Photo is Taken: West Latitude: 46.646016 Longitude: -98.656404

Photo Log

	Photo 142 Observer(s): A. Brazeal Location: Wetland Sampling Point W-587w Direction Photo is Taken: West Latitude: 46.646003 Longitude: -98.656452
	Photo 143 Observer(s): A. Brazeal Location: Upland Sampling Point W-592u Direction Photo is Taken: North Latitude: 46.637769 Longitude: -98.660604
	Photo 144 Observer(s): A. Brazeal Location: Wetland Sampling Point W-592w Direction Photo is Taken: North Latitude: 46.637805 Longitude: -98.660629

Photo Log

	Photo 145 Observer(s): A. Brazeal Location: Upland Sampling Point W-628u Direction Photo is Taken: Northeast Latitude: 46.242399 Longitude: -98.594833
	Photo 146 Observer(s): A. Brazeal Location: Wetland Sampling Point W-628w Direction Photo is Taken: Northeast Latitude: 46.242445 Longitude: -98.594814
	Photo 147 Observer(s): A. Brazeal Location: Upland Sampling Point W-632u Direction Photo is Taken: South Latitude: 46.974977 Longitude: -98.573743

Photo Log

	Photo 148 Observer(s): A. Brazeal Location: Wetland Sampling Point W-632w Direction Photo is Taken: South Latitude: 46.974975 Longitude: -98.573743
	Photo 149 Observer(s): A. Brazeal Location: Upland Sampling Point W-635u Direction Photo is Taken: North Latitude: 46.242629 Longitude: -98.590949
	Photo 150 Observer(s): A. Brazeal Location: Wetland Sampling Point W-635w Direction Photo is Taken: North Latitude: 46.242669 Longitude: -98.590953

Appendix D. Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/27/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: A-W-013u

Investigators: Alex Brazeal Section, Township, Range S 15 T 141 N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 47.03018362 Long: -98.65149147 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X , Soil X , Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Amaranthus palmeri	45	Y	FACU
Glycine max	10	N	UPL
Taraxacum officinale	10	N	FACU
	65	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 35

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	55	x 4 = 220
UPL species	10	x 5 = 50
Column Totals:	65 (A)	270 (B)

Prevalence Index = B/A= 4.15

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: A-W-013u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):
Water Table Present?	Yes ____	No X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Stutsman | Sampling Date: 6/27/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: A-W-013w

Investigators: Alex Brazeal | Section, Township, Range: S 15 T 141N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 47.03018596 | Long: -98.65142108 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil X, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	
Hydric Soil Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Physalis angulata	25	Y	FAC
Glycine max	10	N	UPL
Hordeum jubatum	10	N	FACW
Taraxacum officinale	10	N	FACU
Artemisia annua	5	N	FACU
Sonchus oleraceus	5	N	UPL
	65	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 35

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	25	x 3 =	75
FACU species	15	x 4 =	60
UPL species	15	x 5 =	75
Column Totals:	65 (A)		230 (B)

Prevalence Index = B/A= 3.54

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A-W-013w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/ 2	100					SILT LOAM	
6 to 14	10YR 2/ 1	98	10YR 5/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No	X	Depth (inches):	______
Water Table Present?	Yes ____	No	X	Depth (inches):	______
Saturation Present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	______

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Stutsman | Sampling Date: 6/27/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: A-W-015u

Investigators: Alex Brazeal | Section, Township, Range: S 15 T 141N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Convex | Slope(%): 2

Subregion (LRR): Northern Great Plains Spring W | Lat: 47.03019239 | Long: -98.64190966 | Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka-Parnell complex, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X , Soil X , Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	10	Y	UPL
	10 =Total Cover		
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	10 (A)	50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met due to tilled fields.

SOIL

Sampling Point: A-W-015u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 7	10YR 3 / 2	100					SILT LOAM	
7 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	
Water Table Present?	Yes ___	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/27/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: A-W-015w

Investigators: Alex Brazeal Section, Township, Range S 15 T 141N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 47.03016938 Long: -98.64186679 Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka-Parnell complex, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X , Soil X , Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	10	Y	UPL
	10	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	10 (A)	50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)
Problematic vegeation due to farming and tilling.

SOIL

Sampling Point: A-W-015w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILT LOAM	
6 to 16	10YR 2/1	98	10YR 5/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	
Water Table Present?	Yes ___	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-023u

Investigators: Alex Brazeal Section, Township, Range: S 4 T 133N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.36353875 Long: -98.60980842 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X, Soil X, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X

Is the Sampled Area within a Wetland? **Yes** ___ **No** **X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	5	Y	FACW
	5	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 95

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	5 (A)		10 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-023u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-023w

Investigators: Alex Brazeal Section, Township, Range S 4 T 133N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.36348579 Long: -98.60980913 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Populus deltoides	10	Y	FAC
	10 =Total Cover		
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
	90 =Total Cover		
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A= 2.10

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-023w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 2	/							Unconsolidated Organic Matter
2 to 6	10YR 2 / 2	98	10YR 4/6	2	C	M	SILT LOAM	
6 to 16	10YR 2 / 1	97	10YR 4/6	3	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☑ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	____
Water Table Present?	Yes	____	No	X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-029u

Investigators: Alex Brazeal Section, Township, Range S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.22653272 Long: -98.54622408 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Euphorbia esula	60	Y	UPL
Hordeum jubatum	20	N	FACW
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	20	x 2 = 40
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	60	x 5 = 300
Column Totals:	80 (A)	340 (B)

Prevalence Index = B/A= 4.25

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-ab-029u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-029w

Investigators: Alex Brazeal Section, Township, Range S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.2271316 Long: -98.54640761 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Rumex crispus	40	Y	FAC
Lepidium appelianum	15	N	FAC
Alisma gramineum	5	N	OBL
Hordeum jubatum	5	N	FACW
Polygonum achoreum	5	N	FACU
Typha latifolia	5	Y	OBL
	75	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 30

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	5	x 2 =	10
FAC species	55	x 3 =	165
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	75 (A)		205 (B)

Prevalence Index = B/A= 2.73

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-029w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	100					SILT LOAM	
6 to 12	10YR 4 / 2	98	10YR 4/6	2	C	M	SILT LOAM	
12 to 18	10YR 2 / 1	97	10YR 4/6	3	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	No	X	Depth (inches):	
Water Table Present?	Yes	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-030u

Investigators: Alex Brazeal Section, Township, Range S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.2271972 Long: -98.54604997 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Euphorbia esula	55	Y	UPL
Pascopyrum smithii	30	Y	FACU
Cirsium arvense	5	N	FACU
Convolvulus arvensis	5	N	UPL
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	60	x 5 =	300
Column Totals:	95 (A)		440 (B)

Prevalence Index = B/A= 4.63

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-ab-030u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Dickey | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: FD-ab-030w

Investigators: Alex Brazeal | Section, Township, Range: S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope | Local Relief (concave, convex, none): Concave | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.22710281 | Long: -98.54514923 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____
Hydric Soil Present?	Yes X	No ____
Wetland Hydrology Present?	Yes X	No ____

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Echinochloa crus-galli	20	Y	FAC
Rumex crispus	15	N	FAC
Lepidium latifolium	10	N	FACW
Hordeum jubatum	5	N	FACW
	50	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 50

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	50 (A)		135 (B)

Prevalence Index = B/A= 2.70

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-030w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	100					SILT LOAM	
6 to 12	10YR 4 / 2	98	10YR 4/6	2	C	M	SILT LOAM	
12 to 18	10YR 2 / 1	97	10YR 4/6	3	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [x] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-031u

Investigators: Alex Brazeal Section, Township, Range S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.22674758 Long: -98.54486471 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** **X**
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Pascopyrum smithii	60	Y	FACU
Taraxacum officinale	20	Y	FACU
Hordeum jubatum	5	N	FACW
Poa palustris	5	N	FACW
	90	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	90 (A)		340 (B)

Prevalence Index = B/A= 3.78

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-ab-031u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Dickey | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: FD-ab-031w

Investigators: Alex Brazeal | Section, Township, Range: S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope | Local Relief (concave, convex, none): Concave | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.22600654 | Long: -98.54486471 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	

Is the Sampled Area within a Wetland? **Yes** X **No** ___

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 6 Ft)

Species	Absolute % Cover	Dominant Species	Indicator Status
Poa palustris	40	Y	FACW
Spartina pectinata	40	Y	FACW
Hordeum jubatum	10	N	FACW
Lactuca serriola	10	N	FAC
	100	=Total Cover	

Vine Stratum

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A= 2.10

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-031w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILT LOAM	
8 to 16	10YR 2/1	98	10YR 4/6	2	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-034u

Investigators: Alex Brazeal Section, Township, Range S 10 T 129N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 1

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.00685718 Long: -98.56478928 Datum: WGS84

Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes** ___ **No** X
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	55	Y	UPL
Phalaris arundinacea	35	Y	FACW
Asclepias syriaca	10	N	UPL
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	65	x 5 =	325
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A= 3.95

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-ab-034u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 3	100					SILT LOAM	
6 to 16	10YR 3 / 2	100					SILT LOAM	
16 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** **X**

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No	X	Depth (inches):	
Water Table Present?	Yes ___	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-ab-034w

Investigators: Alex Brazeal Section, Township, Range S 10 T 129N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 1

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.00709503 Long: -98.56491292 Datum: WGS84

Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Alopecurus arundinaceus	40	Y	FACW
Typha angustifolia	20	Y	OBL
Asclepias syriaca	15	N	UPL
Spartina pectinata	10	N	FACW
Eleocharis palustris	5	N	OBL
Phalaris arundinacea	5	N	FACW
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	95 (A)		210 (B)

Prevalence Index = B/A= 2.21

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-ab-034w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 3	99	10 YR 5/6	1	C	M	SILT LOAM	
6 to 16	10YR 2 / 1	98	10YR 5/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-007u

Investigators: Rowan Krump Alex Brazeal Section, Township, Range S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 1

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.50690887 Long: -98.63147897 Datum: WGS84

Soil Map Unit Name: Gardena-Eckman loams, 0 to 2 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	80	Y	UPL
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	80	x 5 = 400
Column Totals:	80 (A)	400 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met. Porblematic vegetation from agricultural farming.

SOIL

Sampling Point: FD-RK-007u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 to 6	5Y 2.5 / 1	100					SILT LOAM	
6 to 20	5Y 3 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: FD-RK-007w

Investigators: Alex Brazeal Rowan Krump | Section, Township, Range: S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%): 1

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.50690176 | Long: -98.63157583 | Datum: WGS84

Soil Map Unit Name: Gardena-Eckman loams, 0 to 2 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	
Is the Sampled Area within a Wetland?	**X**	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bolboschoenus fluviatilis	20	Y	OBL
Zea Mays	20	N	UPL
	40	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 19

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	40 (A)		120 (B)

Prevalence Index = B/A= 3.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Porblematic vegetation from farming.

SOIL

Sampling Point: FD-RK-007w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	5Y 2.5 / 1	100					SILT LOAM	
6 to 12	5Y 2.5 / 1	98	10YR 5/6	2	C	M	SILT LOAM	
12 to 16	5Y 2.5 / 1	97	10YR 5/6	3	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	______
Water Table Present?	Yes ____	No X	Depth (inches):	______
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	______

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-009u

Investigators: Alex Brazeal Section, Township, Range S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.5003316 Long: -98.63201854 Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	
Hydric Soil Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** **X**
Wetland Hydrology Present?	Yes ___ No X	

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	**Dominant Species**	**Indicator Status**
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	30	Y	UPL
Phalaris arundinacea	20	Y	FACW
Zea Mays	20	Y	UPL
Poa pratensis	10	N	FACU
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	50	x 5 =	250
Column Totals:	80 (A)		330 (B)

Prevalence Index = B/A= 4.13

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-RK-009u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	7.5YR 2/ 1	100					SILT LOAM	
6 to 20	10YR 2/ 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: FD-RK-009w

Investigators: Rowan Krump Alex Brazeal | Section, Township, Range S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope | Local Relief (concave, convex, none): Concave | Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.5002702 | Long: -98.63193226 | Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?**	**Yes X No ____**
Hydric Soil Present?	Yes X No ____		
Wetland Hydrology Present?	Yes X No ____		

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Typha latifolia	30	Y	OBL
	90	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		150 (B)

Prevalence Index = B/A= 1.67

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-RK-009w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 2/1	97	7.5YR 5/8	3	C	M	CLAY LOAM	
4 to 16	10YR 2/1	96	7.5YR 4/6	4	C	M	CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-010u

Investigators: Alex Brazeal Section, Township, Range: S 20 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.49849986 Long: -98.63157867 Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	UPL
Poa pratensis	40	Y	FACU
Taraxacum officinale	5	N	FACU
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	45	x 4 =	180
UPL species	50	x 5 =	250
Column Totals:	95 (A)		430 (B)

Prevalence Index = B/A= 4.53

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-RK-010u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-010w

Investigators: Alex Brazeal Section, Township, Range S 27 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.22709805 Long: -98.54925124 Datum: WGS84

Soil Map Unit Name: Fordville loam, 0 to 2 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No** ____
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	45	Y	FACW
Typha latifolia	20	N	OBL
Polygonum erectum	5	N	FAC
	70	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 30

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	45	x 2 =	90
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		125 (B)

Prevalence Index = B/A= 1.79

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-RK-010w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 2/ 1	100					SILT LOAM	
6 to 12	10YR 2/ 1	98	10YR 5/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-012u

Investigators: Alex Brazeal Section, Township, Range S 20 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.49291325 Long: -98.6316165 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Andropogon gerardii	40	Y	FACU
Bassia scoparia	30	Y	FACU
Brassica napus	10	N	UPL
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	10	x 5 =	50
Column Totals:	80 (A)		330 (B)

Prevalence Index = B/A= 4.13

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: FD-RK-012u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024
Applicant/Owner: OTP/MDU State: ND Sampling Point: FD-RK-012w
Investigators: Rowan Krump Alex Brazeal Section, Township, Range S 20 T 135N R 63W
Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2
Subregion (LRR): F-Northern Great Plains Spring Lat: 46.49280681 Long: -98.63152283 Datum: WGS84
Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)
Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X
Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	40	Y	FACW
Polygonum erectum	25	Y	FAC
Carduus nutans	10	N	FACU
Rumex crispus	10	N	FAC
Typha latifolia	10	N	OBL
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	10	x 1 = 10
FACW species	40	x 2 = 80
FAC species	35	x 3 = 105
FACU species	10	x 4 = 40
UPL species	0	x 5 = 0
Column Totals:	95 (A)	235 (B)

Prevalence Index = B/A= 2.47

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FD-RK-012w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type 1	Loc 2	Texture	Remarks
0 to 6	10YR 2 / 1	100					SILT LOAM	
6 to 16	10YR 2 / 1	98	10YR 5/6	2	C	M	CLAY LOAM	

1Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: 3

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** X **No** ______

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	______
Water Table Present?	Yes ____	No X	Depth (inches):	______
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	______

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: No-ab-001

Investigators: Alex Brazeal Section, Township, Range S 28 T 133N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): None Slope(%) 4

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.3024809 Long: -98.60961702 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** **X**
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	10	Y	UPL
	10	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	10 (A)	50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met. Problematic vegeation due to farming and tilling.

SOIL

Sampling Point: No-ab-001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: No-ab-002

Investigators: Alex Brazeal | Section, Township, Range: S 8 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.51861782 | Long: -98.63142907 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X

Is the Sampled Area within a Wetland? **Yes** ___ **No** **X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Triticum sativum	5	Y	UPL
	5	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 95

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5 (A)		25 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 16	10YR 3 / 1	100					SILT LOAM	
16 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ___ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: No-ab-003

Investigators: Alex Brazeal Section, Township, Range S 8 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 8

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.52458058 Long: -98.63145145 Datum: WGS84

Soil Map Unit Name: Buse-Barnes-Darnen loams, 3 to 9 percent slopes NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___ No X		
Wetland Hydrology Present?	Yes ___ No X		

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	50	Y	FACW
Bromus inermis	40	Y	UPL
Bassia scoparia	5	N	FACU
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	50	x 2 = 100
FAC species	0	x 3 = 0
FACU species	5	x 4 = 20
UPL species	40	x 5 = 200
Column Totals:	95 (A)	320 (B)

Prevalence Index = B/A= 3.37

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 2/1	100					SILT LOAM	
8 to 20	10YR 3/2	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: No-ab-004

Investigators: Alex Brazeal | Section, Township, Range: S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.51455162 | Long: -98.63144012 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X, Soil X, Hydrology X, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Triticum sativum	5	Y	UPL
	5	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 95

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5 (A)		25 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:
Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx   City/County: LaMoure   Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU   State: ND   Sampling Point: No-ab-005

Investigators: Alex Brazeal   Section, Township, Range S 17 T 135N R 63W

Landform (hillslope, terrace, etc.): Depression   Local Relief (concave, convex, none): Concave   Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring   Lat: 46.51253655   Long: -98.63147495   Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes   NWI Classification: PEM1Ad

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation X , Soil X , Hydrology X , significantly disturbed?   Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic?   (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Triticum sativum	2	Y	UPL
	2	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 98

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	2 (A)		10 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-005

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: No-ab-016

Investigators: Alex Brazeal Section, Township, Range S 10 T 129N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 1

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.00608752 Long: -98.56444785 Datum: WGS84

Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	5	Y	UPL
	5	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 95

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	5 (A)		25 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-016

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILT LOAM	
8 to 16	10YR 3 / 2	100					SILT LOAM	
16 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ___ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):		
Water Table Present?	Yes ___	No X	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):		

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: No-ab-017

Investigators: Alex Brazeal Section, Township, Range S 8 T 137N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.68900531 Long: -98.65019862 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___ No X		
Wetland Hydrology Present?	Yes ___ No X		

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	2	Y	UPL
	2	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 98

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	2	x 5 =	10
Column Totals:	2 (A)		10 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test > 50%

___ Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ___ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-017

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILT LOAM	
6 to 14	10YR 3/1	100					SILT LOAM	
14 to 20	10YR 2/1	95					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: No-ab-020

Investigators: Alex Brazeal Section, Township, Range S 28 T 136N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 8

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.56072532 Long: -98.60048435 Datum: WGS84

Soil Map Unit Name: Buse-Barnes-Darnen loams, 3 to 9 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Amaranthus palmeri	10	Y	FACU
Glycine max	10	Y	UPL
	20	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 80

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	10	x 5 =	50
Column Totals:	20 (A)		90 (B)

Prevalence Index = B/A= 4.50

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: No-ab-020

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	
Water Table Present?	Yes ___	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: OW-28u

Investigators: Alex Brazeal | Section, Township, Range: S 33 T 135N R 63W

Landform (hillslope, terrace, etc.): Top of Slope | Local Relief (concave, convex, none): Convex | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.45704322 | Long: -98.61012442 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Ambrosia artemisiifolia	25	Y	FACU
Bassia scoparia	25	Y	FACU
Distichlis spicata	25	Y	FACW
Bromus inermis	20	N	UPL
Medicago sativa	5	N	UPL
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	25	x 5 =	125
Column Totals:	100 (A)		375 (B)

Prevalence Index = B/A= 3.75

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: OW-28u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 3	2.5Y 2.5 / 1	100					SILT LOAM	
3 to 7	2.5Y 3 / 2	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Hard pan clay

Depth (inches): 7"

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No	X	Depth (inches):	____
Water Table Present?	Yes ____	No	X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: OW-28w

Investigators: Alex Brazeal Section, Township, Range S 33 T 135N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.45714131 Long: -98.61000811 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	
Is the Sampled Area within a Wetland?	**X**	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	40	Y	UPL
Distichlis spicata	15	N	FACW
Ambrosia artemisiifolia	10	N	FACU
Bassia scoparia	10	N	FACU
Elymus repens	5	N	FACU
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	15	x 2 = 30
FAC species	0	x 3 = 0
FACU species	25	x 4 = 100
UPL species	40	x 5 = 200
Column Totals:	80 (A)	330 (B)

Prevalence Index = B/A= 4.13

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Prolematic vegetation from agrucultural farming and tilling.

SOIL

Sampling Point: OW-28w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	2.5Y 3 / 2	100					SANDY LOAM	
8 to 12	2.5Y 4 / 2	60					SANDY LOAM	
8 to 12	2.5Y 5 / 1	40					CLAY LOAM	
12 to 18	2.5Y 5 / 2	99	2.5Y 6/4	1	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	No	X	Depth (inches):	
Water Table Present?	Yes	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: OW-44u

Investigators: Alex Brazeal Section, Township, Range S 2 T 131N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 4

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.19441796 Long: -98.53475446 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X
Hydric Soil Present?	Yes	No X
Wetland Hydrology Present?	Yes	No X

Is the Sampled Area within a Wetland? **Yes** ___ **No** **X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Andropogon gerardii	90	Y	FACU
Rumex crispus	10	N	FAC
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	10	x 3 = 30
FACU species	90	x 4 = 360
UPL species	0	x 5 = 0
Column Totals:	100 (A)	390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: OW-44u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No	X	Depth (inches):	
Water Table Present?	Yes ____	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: OW-44w

Investigators: Alex Brazeal Section, Township, Range S 2 T 131N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 4

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.19443573 Long: -98.53468127 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	
Hydric Soil Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Juncus balticus	75	Y	FACW
Typha latifolia	10	N	OBL
Lactuca serriola	5	N	FAC
Rumex crispus	5	N	FAC
Spartina pectinata	5	N	FACW
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: OW-44w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILT LOAM	
8 to 20	10YR 2/1	98	10YR 4/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Stutsman | Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: W-205u

Investigators: Alex Brazeal | Section, Township, Range: S 29 T 137N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Convex | Slope(%): 0

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.65716055 | Long: -98.65055166 | Datum: WGS84

Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bassia scoparia	2	Y	FACU
Zea Mays	2	Y	UPL
	4 =Total Cover		
Vine Stratum			

% Bare Ground in Herb Stratum 96

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	2	x 4 =	8
UPL species	2	x 5 =	10
Column Totals:	4 (A)		18 (B)

Prevalence Index = B/A= 4.50

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-205u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 3	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-205w

Investigators: Alex Brazeal Section, Township, Range S 29 T 137N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 0

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.65712557 Long: -98.65053018 Datum: WGS84

Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	
Hydric Soil Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Distichlis spicata	49	Y	FACW
Hordeum jubatum	49	Y	FACW
Rumex crispus	2	N	FAC
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	98	x 2 =	196
FAC species	2	x 3 =	6
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		202 (B)

Prevalence Index = B/A= 2.02

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-205w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 16	10YR 2 / 1	98	10 YR 4/6	2	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No	X	Depth (inches):	
Water Table Present?	Yes ___	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/14/2024
Applicant/Owner: OTP/MDU State: ND Sampling Point: W-217u
Investigators: Alex Brazeal Section, Township, Range S 5 T 136N R 63W
Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 4
Subregion (LRR): F-Northern Great Plains Spring Lat: 46.63023042 Long: -98.62103842 Datum: WGS84
Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)
Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X
Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** **X**
Hydric Soil Present?	Yes ___ No X	
Wetland Hydrology Present?	Yes ___ No X	

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Melilotus officinalis	40	Y	FACU
Poa palustris	30	Y	FACW
Hordeum jubatum	15	N	FACW
Sonchus oleraceus	15	N	UPL
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	15	x 5 =	75
Column Totals:	100 (A)		325 (B)

Prevalence Index = B/A= 3.25

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-217u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx　City/County: LaMoure　Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU　State: ND　Sampling Point: W-217w

Investigators: Alex Brazeal　Section, Township, Range: S 5　T 136N　R 63W

Landform (hillslope, terrace, etc.): Toe of Slope　Local Relief (concave, convex, none): Concave　Slope(%): 0

Subregion (LRR): F-Northern Great Plains Spring　Lat: 46.63022634　Long: -98.62093451　Datum: WGS84

Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes　NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed?　Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic?　(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ___
Hydric Soil Present?	Yes X	No ___
Wetland Hydrology Present?	Yes X	No ___

Is the Sampled Area within a Wetland? **Yes** X **No** ___

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 6 Ft)

Species	Absolute % Cover	Dominant Species	Indicator Status
Spartina pectinata	30	Y	FACW
Hordeum jubatum	20	N	FACW
Distichlis spicata	10	N	FACW
Rumex crispus	10	N	FAC
Typha angustifolia	10	N	OBL
Typha latifolia	10	N	OBL
Persicaria amphibia	5	N	OBL
Schoenoplectus tabernaemontani	5	N	OBL
	100	=Total Cover	

Vine Stratum

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	30	x 1 = 30
FACW species	60	x 2 = 120
FAC species	10	x 3 = 30
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	100 (A)	180 (B)

Prevalence Index = B/A= 1.80

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-217w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 2/ 1	100					SILT LOAM	
4 to 16	10YR 2/ 1	96	10 YR 4/6	2	C	M	SILT LOAM	
4 to 16	10YR 4/ 1	90	10YR 4/6	10	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [x] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-218u

Investigators: Alex Brazeal Section, Township, Range S 5 T 136N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.63041368 Long: -98.62286992 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bassia scoparia	35	Y	FACU
Distichlis spicata	10	N	FACW
Hordeum jubatum	10	N	FACW
	55	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 45

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	20	x 2 = 40
FAC species	0	x 3 = 0
FACU species	35	x 4 = 140
UPL species	0	x 5 = 0
Column Totals:	55 (A)	180 (B)

Prevalence Index = B/A= 3.27

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-218u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILT LOAM	
10 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	
Water Table Present?	Yes	____	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx — City/County: LaMoure — Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU — State: ND — Sampling Point: W-218W

Investigators: Alex Brazeal — Section, Township, Range: S 5 T 136N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope — Local Relief (concave, convex, none): Concave — Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring — Lat: 46.63042141 — Long: -98.62290841 — Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes — NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	

Is the Sampled Area within a Wetland? **Yes** X **No** ___

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 6 Ft)

Species	Absolute % Cover	Dominant Species	Indicator Status
Distichlis spicata	35	Y	FACW
Hordeum jubatum	25	Y	FACW
Schoenoplectus tabernaemontani	15	N	OBL
Sonchus oleraceus	10	N	UPL
Cirsium arvense	5	N	FACU
Melilotus officinalis	5	N	FACU
Rumex crispus	5	N	FAC
	100	=Total Cover	

Vine Stratum

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	15	x 1 = 15
FACW species	60	x 2 = 120
FAC species	5	x 3 = 15
FACU species	10	x 4 = 40
UPL species	10	x 5 = 50
Column Totals:	100 (A)	240 (B)

Prevalence Index = B/A= 2.40

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-218W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 10	10YR 3 / 2	98	10 YR 4/6	2	C	M	SILT LOAM	
10 to 16	10YR 2 / 1	98	10 YR 4/6	2	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx　City/County: LaMoure　Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU　State: ND　Sampling Point: W-265u

Investigators: Alex Brazeal　Section, Township, Range: S 33　T 136N　R 63W

Landform (hillslope, terrace, etc.): Depression　Local Relief (concave, convex, none): Convex　Slope(%): 1

Subregion (LRR): F-Northern Great Plains Spring　Lat: 46.55647168　Long: -98.61058843　Datum: WGS84

Soil Map Unit Name: Svea-Wyard loams, 0 to 3 percent slopes　NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed?　Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic?　(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	10	Y	UPL
Echinochloa crus-galli	5	N	FAC
	15	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 85

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	15 (A)		65 (B)

Prevalence Index = B/A= 4.33

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- ____ Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-265u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 1	100					SILT LOAM	
8 to 16	10YR 3 / 2	100					CLAY LOAM	
16 to 20	10YR 2 / 1	100					CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ___ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	
Water Table Present?	Yes ___	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx — City/County: LaMoure — Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU — State: ND — Sampling Point: W-265w

Investigators: Alex Brazeal — Section, Township, Range: S 33 T 136N R 63W

Landform (hillslope, terrace, etc.): Depression — Local Relief (concave, convex, none): Concave — Slope(%): 1

Subregion (LRR): F-Northern Great Plains Spring — Lat: 46.55646843 — Long: -98.61065814 — Datum: WGS84

Soil Map Unit Name: Svea-Wyard loams, 0 to 3 percent slopes — NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ___
Hydric Soil Present?	Yes X	No ___
Wetland Hydrology Present?	Yes X	No ___

Is the Sampled Area within a Wetland? **Yes X No ___**

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Alopecurus pratensis	5	N	FACW
Echinochloa crus-galli	5	N	FAC
Typha angustifolia	5	N	OBL
	15	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 85

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	15 (A)		30 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-265w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	99	10 YR 5/6	1	C	M	SILT LOAM	
8 to 16	10YR 2 / 1	97	10 YR 4/6	3	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?	____	X	____
Water Table Present?	____	X	____
Saturation Present? (includes capillary fringe)	____	X	____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: W-274u

Investigators: Alex Brazeal | Section, Township, Range S 33 T 136N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Convex | Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.5442414 | Long: -98.61088538 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	
Hydric Soil Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?** **Yes** ___ **No** **X**
Wetland Hydrology Present?	Yes ___ No X	

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	30	Y	FACW
Amaranthus palmeri	25	N	FACU
Taraxacum officinale	10	N	FACU
	65	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 35

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	30	x 2 = 60
FAC species	0	x 3 = 0
FACU species	35	x 4 = 140
UPL species	0	x 5 = 0
Column Totals:	65 (A)	200 (B)

Prevalence Index = B/A= 3.08

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-274u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 4/2	100					SILT LOAM	
5 to 12	10YR 3/2	100					CLAY LOAM	
12 to 20	10YR 2/1	100					CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ___ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-274w

Investigators: Alex Brazeal Section, Township, Range S 33 T 136N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.54418788 Long: -98.61086378 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	35	Y	FACW
Hordeum jubatum	20	N	FACW
Persicaria amphibia	15	N	OBL
Distichlis spicata	10	N	FACW
	80	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 20

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		145 (B)

Prevalence Index = B/A= 1.81

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-274w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3/2	100					SILT LOAM	
5 to 16	10YR 2/1	98	10 YR 5/6	2	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: W-341u

Investigators: Alex Brazeal | Section, Township, Range: S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.3763292 | Long: -98.61000857 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	UPL
Poa palustris	10	N	FACW
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	85	x 5 =	425
Column Totals:	95 (A)		445 (B)

Prevalence Index = B/A= 4.68

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-341u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-341w

Investigators: Alex Brazeal Section, Township, Range S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.37651699 Long: -98.61003318 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?**	**Yes X No**
Hydric Soil Present?	Yes X	No		
Wetland Hydrology Present?	Yes X	No		

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Populus alba	15	N	FAC
	15	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Carex filifolia	60	Y	OBL
Eleocharis palustris	15	N	OBL
Lactuca serriola	15	N	FAC
Phalaris arundinacea	5	N	FACW
Schoenoplectus tabernaemontani	2	N	OBL
	97	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 3

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	77	x 1 = 77
FACW species	5	x 2 = 10
FAC species	30	x 3 = 90
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	112 (A)	177 (B)

Prevalence Index = B/A= 1.58

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-341w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILT LOAM	
6 to 12	10YR 2/1	98	10YR 4/6	2	C	M	SILT LOAM	
12 to 16	10YR 2/1	97	10YR 4/6	3	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No	X	Depth (inches):	____
Water Table Present?	Yes ____	No	X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No	X	Depth (inches):	____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site:	JETx	City/County:	LaMoure	Sampling Date:	6/13/2024
Applicant/Owner:	OTP/MDU	State:	ND	Sampling Point:	W-343u
Investigators:	Alex Brazeal	Section, Township, Range	S 33 T 134N R 63W		
Landform (hillslope, terrace, etc.):	Depression	Local Relief (concave, convex, none):	Concave	Slope(%)	2
Subregion (LRR):	F-Northern Great Plains Spring	Lat: 46.37650517	Long: -98.60962754	Datum:	WGS84
Soil Map Unit Name:	Barnes-Svea loams, 0 to 3 percent slopes	NWI Classification:			

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer negundo	5	N	FAC
	5	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Acer negundo	20	N	FAC
	20	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Poa palustris	60	Y	FACW
Bromus inermis	10	N	UPL
Asclepias syriaca	5	N	UPL
	75	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across all Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	25	x 3 =	75
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	100 (A)		270 (B)

Prevalence Index = B/A= 2.70

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-343u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10R 3 / 2	100					SILT LOAM	
4 to 16	10YR 4 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-343w

Investigators: Alex Brazeal Section, Township, Range S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.37634502 Long: -98.60971608 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?**	**Yes X No ____**
Hydric Soil Present?	Yes X No ____		
Wetland Hydrology Present?	Yes X No ____		

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Spartina pectinata	60	Y	FACW
Phalaris arundinacea	20	N	FACW
Polygonum erectum	10	N	FAC
	90	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	90 (A)		190 (B)

Prevalence Index = B/A= 2.11

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-343w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 to 8	10YR 2 / 1	100					SILT LOAM	
8 to 12	10YR 3 / 2	98	10YR 4/6	2	C	M	SILT LOAM	
12 to 16	10YR 2 / 1	97	10YR 4/6	3	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	
Water Table Present?	Yes	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches):	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-345u

Investigators: Alex Brazeal Section, Township, Range S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.37527442 Long: -98.61009862 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Poa palustris	55	Y	FACW
Taraxacum officinale	25	N	FACU
Lactuca serriola	10	N	FAC
	90	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	10	x 3 =	30
FACU species	25	x 4 =	100
UPL species	0	x 5 =	0
Column Totals:	90 (A)		240 (B)

Prevalence Index = B/A= 2.67

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-345u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	____
Water Table Present?	Yes	____	No	X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-345w

Investigators: Alex Brazeal Section, Township, Range S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.37535859 Long: -98.61008849 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification: PEM1/ABF

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No
Hydric Soil Present?	Yes X	No
Wetland Hydrology Present?	Yes X	No

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 6 Ft)

Species	Absolute % Cover	Dominant Species	Indicator Status
Phalaris arundinacea	40	Y	FACW
Eleocharis palustris	30	Y	OBL
Lactuca serriola	5	N	FAC
Mentha arvensis	5	N	FACW
Polygonum erectum	5	N	FAC
Potentilla anserina	5	N	FACW
Schoenoplectus tabernaemontani	5	N	OBL
	95	=Total Cover	

Vine Stratum

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	50	x 2 =	100
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		165 (B)

Prevalence Index = B/A= 1.74

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-345w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 2/ 1	100					SILT LOAM	
6 to 12	10YR 2/ 1	98	10YR 4/6	2	C	M	CLAY LOAM	
12 to 16	10YR 2/ 1	97	10YR 4/6	3	C	M	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	
Water Table Present?	Yes ___	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: LaMoure | Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: W-347u

Investigators: Alex Brazeal | Section, Township, Range: S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave | Slope(%): 1-2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.37348031 | Long: -98.60976835 | Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	10	Y	UPL
	10	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	10 (A)		50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-347u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	____
Water Table Present?	Yes	____	No	X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx   City/County: LaMoure   Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU   State: ND   Sampling Point: W-347w

Investigators: Alex Brazeal   Section, Township, Range S 33 T 134N R 63W

Landform (hillslope, terrace, etc.): Depression   Local Relief (concave, convex, none): Concave   Slope(%) 1-2

Subregion (LRR): F-Northern Great Plains Spring   Lat: 46.37359607   Long: -98.60991274   Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes   NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed?   Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic?   (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Populus alba	2	N	FAC
Salix amygdaloides	2	N	FACW
	4	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Eleocharis acicularis	55	Y	OBL
Carex filifolia	20	N	OBL
Artemisia annua	5	N	FACU
Echinochloa crus-galli	5	N	FAC
Polygonum argyrocoleon	5	N	OBL
	90	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 10

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	2	x 2 =	4
FAC species	7	x 3 =	21
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	94 (A)		125 (B)

Prevalence Index = B/A= 1.33

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-347w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILT LOAM	
6 to 12	10YR 2 / 1	100					SILT LOAM	
12 to 16	10YR 2 / 1	97	10YR 4/6	3	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-383u

Investigators: Alex Brazeal Section, Township, Range S 33 T 133N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Convex Slope(%) 4

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.29505695 Long: -98.60929097 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No X			
Hydric Soil Present?	Yes ___ No X	**Is the Sampled Area within a Wetland?**	**Yes** ___	**No X**
Wetland Hydrology Present?	Yes ___ No X			

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	15	Y	UPL
	15	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 85

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	15	x 5 =	75
Column Totals:	15 (A)		75 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-383u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):	
Water Table Present?	Yes		No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: LaMoure Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-383w

Investigators: Alex Brazeal Section, Township, Range: S 33 T 133N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%): 4

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.295042 Long: -98.60956018 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 3 to 6 percent slopes NWI Classification: Pf

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** Yes X No ___
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	85	Y	UPL
	85	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 15

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	85	x 5 = 425
Column Totals:	85 (A)	425 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Problematic vegetation from agricultural farming and tilling.

SOIL

Sampling Point: W-383w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/ 2	98	10YR 4/6	2	C	M	SILT LOAM	
6 to 16	10YR 2/ 1	98	10YR 4/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx   City/County: Dickey   Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU   State: ND   Sampling Point: W-399u

Investigators: Alex Brazeal   Section, Township, Range: S 5   T 132N   R 63W

Landform (hillslope, terrace, etc.): Depression   Local Relief (concave, convex, none): Convex   Slope(%): 1

Subregion (LRR): F-Northern Great Plains Spring   Lat: 46.28219226   Long: -98.59803879   Datum: WGS84

Soil Map Unit Name: Swenoda-Letcher fine sandy loams, 0 to 3 percent slopes   NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed?   Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic?   (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?		X
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		**X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	30	Y	UPL
	30	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 70

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	30	x 5 = 150
Column Totals:	30 (A)	150 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ___ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-399u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 3 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-399w

Investigators: Alex Brazeal Section, Township, Range S 5 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 1

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.28219201 Long: -98.59780406 Datum: WGS84

Soil Map Unit Name: Swenoda-Letcher fine sandy loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Hydric Soil Present?	Yes X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	10	Y	UPL
	10	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	10 (A)	50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)
Problematic vegetation from agricutural farming and tilling.

SOIL

Sampling Point: W-399w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type 1	Loc 2	Texture	Remarks
0 to 6	10YR 3/ 1	100					SILT LOAM	
6 to 16	10YR 3/ 2	98	10YR 4/6	2	C	M	SILT LOAM	

1Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. 2 Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: 3

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No** ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	
Water Table Present?	Yes	____	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/13/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-421u

Investigators: Alex Brazeal Section, Township, Range S 26 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 0

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.21352259 Long: -98.53456702 Datum: WGS84

Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	50	Y	FACW
Poa pratensis	48	Y	FACU
	98	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 2

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	48	x 4 =	192
UPL species	0	x 5 =	0
Column Totals:	98 (A)		292 (B)

Prevalence Index = B/A= 2.98

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-421u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3 / 2	100					SILT LOAM	
4 to 10	10YR 3 / 1	100					SILT LOAM	
10 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes ____ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-421w

Investigators: Alex Brazeal Section, Township, Range S 26 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 0

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.21347314 Long: -98.53451892 Datum: WGS84

Soil Map Unit Name: Parnell silty clay loam, 0 to 1 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___	
Hydric Soil Present?	Yes X No ___	**Is the Sampled Area within a Wetland?** **Yes X No ___**
Wetland Hydrology Present?	Yes X No ___	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Poa palustris	20	N	FACW
Lactuca serriola	5	N	FAC
	95	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 5

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	90	x 2 = 180
FAC species	5	x 3 = 15
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	95 (A)	195 (B)

Prevalence Index = B/A= 2.05

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-421w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0 to 6	10YR 3 / 2	98	10YR 4/6	2	C	M	SILT LOAM	
6 to 20	10YR 3 / 1	95	10YR 4/6	5	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes		No	X	Depth (inches):

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-587u

Investigators: Alex Brazeal Section, Township, Range S 29 T 137N R 63W

Landform (hillslope, terrace, etc.): Top of Slope Local Relief (concave, convex, none): Convex Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.6460161 Long: -98.65640363 Datum: WGS84

Soil Map Unit Name: Hamerly-Cresbard loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?**	**Yes ___ No X**
Hydric Soil Present?	Yes ___	No X		
Wetland Hydrology Present?	Yes ___	No X		

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Zea Mays	10	Y	UPL
	10	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 90

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	10	x 5 = 50
Column Totals:	10 (A)	50 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-587u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3 / 2	100					SILT LOAM	
4 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-587w

Investigators: Alex Brazeal Section, Township, Range S 29 T 137N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.64600265 Long: -98.65645186 Datum: WGS84

Soil Map Unit Name: Hamerly-Cresbard loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	55	Y	FACW
Alopecurus pratensis	35	Y	FACW
Persicaria amphibia	10	N	OBL
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		190 (B)

Prevalence Index = B/A= 1.90

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-587w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	98	10 YR 4/6	2	C	M	SILT LOAM	
6 to 12	10YR 2 / 1	98	10 YR 4/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-592u

Investigators: Alex Brazeal Section, Township, Range S 32 T 137N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.6377688 Long: -98.66060444 Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bassia scoparia	20	N	FACU
	20 =Total Cover		
Vine Stratum			

% Bare Ground in Herb Stratum 80

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	20	x 4 = 80
UPL species	0	x 5 = 0
Column Totals:	20 (A)	80 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-592u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3 / 2	100					SILT LOAM	
5 to 20	10YR 2 / 1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx — City/County: Stutsman — Sampling Date: 6/14/2024
Applicant/Owner: OTP/MDU — State: ND — Sampling Point: W-592w
Investigators: Alex Brazeal — Section, Township, Range: S 32 T 137N R 63W
Landform (hillslope, terrace, etc.): Depression — Local Relief (concave, convex, none): Concave — Slope(%): 2
Subregion (LRR): F-Northern Great Plains Spring — Lat: 46.63780473 — Long: -98.6606291 — Datum: WGS84
Soil Map Unit Name: Hamerly-Tonka complex, 0 to 3 percent slopes — NWI Classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)
Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X
Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	

Is the Sampled Area within a Wetland? **Yes X No ___**

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bassia scoparia	10	N	FACU
Persicaria amphibia	10	N	OBL
	20	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 80

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across all Strata: 0 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	20 (A)		50 (B)

Prevalence Index = B/A= 2.50

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ___**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-592w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3 / 2	100					SILT LOAM	
5 to 16	10YR 2 / 1	98	10 YR 4/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** X **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** X **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx | City/County: Dickey | Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU | State: ND | Sampling Point: W-628u

Investigators: Alex Brazeal | Section, Township, Range: S 17 T 132N R 63W

Landform (hillslope, terrace, etc.): Top of Slope | Local Relief (concave, convex, none): Convex | Slope(%): 2

Subregion (LRR): F-Northern Great Plains Spring | Lat: 46.24239923 | Long: -98.59483317 | Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka-Parnell complex, 0 to 3 percent slopes | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X

Is the Sampled Area within a Wetland? **Yes** ___ **No** **X**

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

Tree Stratum

Shrub Stratum

Herb Stratum (Plot size: 6 Ft)

Species	Absolute % Cover	Dominant Species	Indicator Status
Medicago sativa	30	Y	UPL
Poa pratensis	30	Y	FACU
Taraxacum officinale	25	N	FACU
Solidago rigida	10	N	FACU
Apocynum cannabinum	5	N	FAC
	100	=Total Cover	

Vine Stratum

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	65	x 4 =	260
UPL species	30	x 5 =	150
Column Totals:	100 (A)		425 (B)

Prevalence Index = B/A= 4.25

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-628u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 2 / 1	100					SILT LOAM	
12 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	
Water Table Present?	Yes ____	No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-628w

Investigators: Alex Brazeal Section, Township, Range S 17 T 132N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.24244511 Long: -98.59481371 Datum: WGS84

Soil Map Unit Name: Hamerly-Tonka-Parnell complex, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X No ____	
Wetland Hydrology Present?	Yes X No ____	

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	50	Y	FACW
Poa palustris	35	Y	FACW
Persicaria amphibia	10	N	OBL
Apocynum cannabinum	5	N	FAC
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		195 (B)

Prevalence Index = B/A= 1.95

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-628w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 9	10YR 2 / 1	98	10 YR 4/6	2	C	M	SILT LOAM	
9 to 16	10YR 4 / 2	96	10 YR 4/6	4	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [x] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Stutsman Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-632u

Investigators: Alex Brazeal Section, Township, Range S 1 T 140N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope Local Relief (concave, convex, none): Concave Slope(%) 12

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.9749766 Long: -98.57374295 Datum: WGS84

Soil Map Unit Name: Udarents loamy, abandoned gravel pits, 0 to 25 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?		X
Wetland Hydrology Present?		X
Is the Sampled Area within a Wetland?		X

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Poa palustris	40	Y	FACW
Melilotus officinalis	20	N	FACU
Bromus inermis	15	N	UPL
Medicago sativa	10	N	UPL
	85	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 15

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	40	x 2 = 80
FAC species	0	x 3 = 0
FACU species	20	x 4 = 80
UPL species	25	x 5 = 125
Column Totals:	85 (A)	285 (B)

Prevalence Index = B/A= 3.35

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-632u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 2	7.5YR 4 / 1	100					COARSE SAND	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel/stone

Depth (inches): 2

Hydric Soil Present? Yes ___ No X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	No	X	Depth (inches):	
Water Table Present?	Yes	No	X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No	X	Depth (inches):	

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx   City/County: Stutsman   Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU   State: ND   Sampling Point: W-632w

Investigators: Alex Brazeal   Section, Township, Range: S 1 T 140N R 63W

Landform (hillslope, terrace, etc.): Toe of Slope   Local Relief (concave, convex, none): Convex   Slope(%): 12

Subregion (LRR): F-Northern Great Plains Spring   Lat: 46.97497507   Long: -98.57374271   Datum: WGS84

Soil Map Unit Name: Udarents loamy, abandoned gravel pits, 0 to 25 percent slopes   NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed?   Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic?   (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	X	
Hydric Soil Present?	X	
Wetland Hydrology Present?	X	

Is the Sampled Area within a Wetland? **Yes** X **No** ___

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Spartina pectinata	25	Y	FACW
Eleocharis palustris	20	N	OBL
Juncus balticus	20	N	FACW
Phalaris arundinacea	20	N	FACW
Potentilla anserina	15	N	FACW
	100	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	20	x 1 = 20
FACW species	80	x 2 = 160
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	100 (A)	180 (B)

Prevalence Index = B/A= 1.80

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
X Dominance Test > 50%
X Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-632w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 2	7.5YR 4 / 1	100					COARSE SAND	
2 to 8	7.5YR 3 / 1	99	7.5 YR 4/6	1	C	M	COARSE SAND	
8 to 16	7.5YR 2.5 / 1	99	7.5 YR 4/6	1	C	M	COARSE SAND	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [x] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [x] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [x] Saturation Visible on Aerial Imag.(C9)
- [x] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):	______
Water Table Present?	Yes	____	No	X	Depth (inches):	______
Saturation Present? (includes capillary fringe)	Yes	____	No	X	Depth (inches):	______

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-635u

Investigators: Alex Brazeal Section, Township, Range S 17 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.24262924 Long: -98.59094867 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

	Yes	No			Yes	No
Hydrophytic Vegetation Present?		X				
Hydric Soil Present?		X		**Is the Sampled Area within a Wetland?**		X
Wetland Hydrology Present?		X				

Remarks:
Wetland criteria was not met for the site, normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	75	Y	UPL
	75	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 25

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	75	x 5 =	375
Column Totals:	75 (A)		375 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test > 50%
- ___ Prevalence Index ≤ 3.0
- ___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland vegetation criteria was not met.

SOIL

Sampling Point: W-635u

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILT LOAM	
8 to 16	10YR 2 / 2	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [ ] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5) LRR F
- [ ] 1 cm Muck (A9) LRRF G, H
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Sandy Mucky Mineral (S1)
- [ ] 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- [ ] 5 cm Mucky Peat or Peat (S3)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- [ ] 1 cm Muck (A9) (LRR I, J)
- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7) (LRR G)
- [ ] High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- [ ] Reduced Vertic (F18)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

- [ ] **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
Wetland soil criteria was not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [ ] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Salt Crust (B11)
- [ ] Aquatic Fauna (B13)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Dry-Season Water Table (C2)
- [ ] Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- [ ] Presence of Reduced Iron (C4)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imag.(C9)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)
- [ ] Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

	Yes	No	Depth (inches):
Surface Water Present?		X	
Water Table Present?		X	
Saturation Present? (includes capillary fringe)		X	

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology criteria was not met.

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: JETx City/County: Dickey Sampling Date: 6/14/2024

Applicant/Owner: OTP/MDU State: ND Sampling Point: W-635w

Investigators: Alex Brazeal Section, Township, Range S 17 T 132N R 63W

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope(%) 2

Subregion (LRR): F-Northern Great Plains Spring Lat: 46.24266918 Long: -98.59095335 Datum: WGS84

Soil Map Unit Name: Barnes-Svea loams, 0 to 3 percent slopes NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If No, explain in Remarks)

Are Vegetation ___, Soil ___, Hydrology ___, significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X

Are Vegetation ___, Soil ___, Hydrology ___, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ___		
Hydric Soil Present?	Yes X No ___	**Is the Sampled Area within a Wetland?**	**Yes X No ___**
Wetland Hydrology Present?	Yes X No ___		

Remarks:
Normal circumstances are not present due to agricultural farming. Hydrologic conditions for the site are wetter than normal for this time of the year.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Glycine max	75	Y	UPL
	75	=Total Cover	
Vine Stratum			

% Bare Ground in Herb Stratum 25

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	75	x 5 = 375
Column Totals:	75 (A)	375 (B)

Prevalence Index = B/A= 5.00

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test > 50%
___ Prevalence Index ≤ 3.0
___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
X Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Problematic vegetation from agriculutral farming and tilling.

SOIL

Sampling Point: W-635w

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILT LOAM	
8 to 16	10YR 2/2	97	10 YR 5/6	3	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) LRR F
- ☐ 1 cm Muck (A9) LRRF G, H
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☑ Redox Depressions (F8)
- ☐ High Plains Depressions (F16) (MLRA 72 73 of LRR H)

Indicators for Problematic Hydric Soils: [3]

- ☐ 1 cm Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: ____

Depth (inches): ____

Hydric Soil Present? Yes X No ____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☑ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Dry-Season Water Table (C2)
- ☐ Oxidized Rhizospheres along Living Roots (C3) (where not tilled)
- ☐ Presence of Reduced Iron (C4)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	____
Water Table Present?	Yes ____	No X	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix E. Driving Directions

bing maps

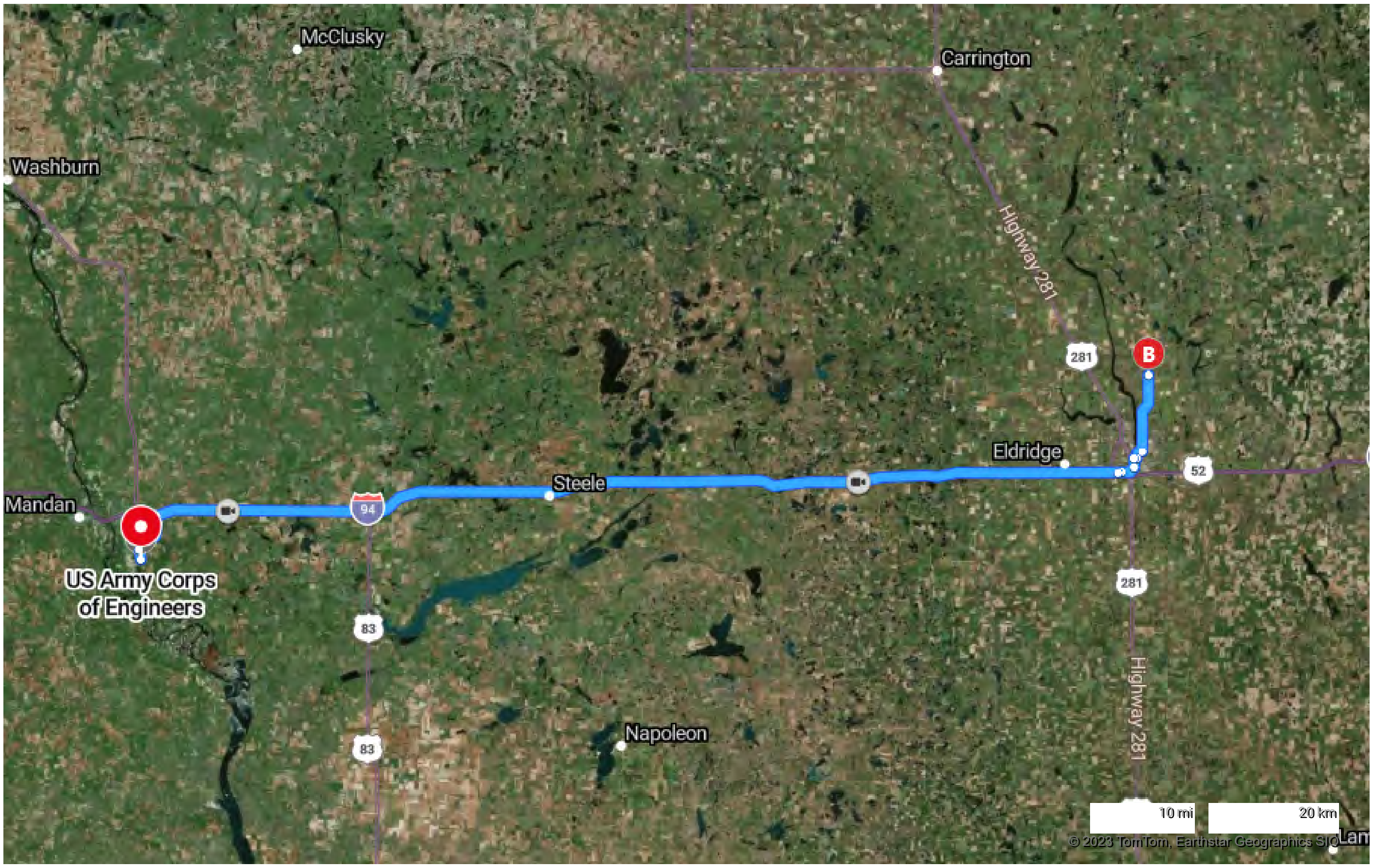
A US Army Corps of Engineers, 3319 University Dr, Bismarck, ND 58504
B 2651 86th Ave SE, Jamestown, ND 58401, United States

1 hr 44 min , 113 miles
Light traffic
Via I-94 E

A US Army Corps of Engineers

1.	Head **north** on **ND-1804 / University Dr** toward Sisseton St	1.0 mi
2.	Turn **right** onto **Airport Rd**	0.9 mi
3.	Turn **right** onto **ND-810 / E Bismarck Expy** ▲ *Minor congestion*	3.6 mi
4.	Take the ramp on the **right** for **US-83 South / I-94 East** and head toward **Fargo**	95.2 mi, 1 hr 14 min
5.	At Exit **257**, head **left** on the ramp for **I-94 E Bus / 17th St SW** toward **Jamestown**	0.3 mi
6.	Keep **straight** to get onto **I-94 E Bus / 17th St SW** ▲ *Minor congestion*	1.5 mi
7.	Turn **left** onto **US-281 N / US-52 W / 1st Ave S** ▲ *Minor congestion*	0.9 mi
8.	Turn **right** onto **ND-20 / 4th St NE**	0.3 mi
9.	Turn **left** to stay on **ND-20 / 5th Ave NE**	1.1 mi
10.	Turn **left** to stay on **ND-20 / 12th Ave NE**	7.7 mi
11.	Arrive at **ND-20 / 86th Ave SE** on the left The last intersection before your destination is 27th St SE If you reach 26th St SE, you've gone too far	

B 2651 86th Ave SE, Jamestown, ND 58401, United States



A **US Army Corps of Engineers, 3319 Univer...**

B **2651 86th Ave SE, Jamestown, ND 58401, ...**

These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2023 TomTom.

Appendix F. Statement from Property Owner(s) Allowing Access

The Project Corridor for the proposed JETx transmission line is located within privately owned land. The contact information for the Owners is Mark Thoma, Otter Tail Power Company, 218-739-8526 and mthoma@otpcp.com. Should the USACE need to request a site visit, please contact Mark Thoma or the HDR Project Manager, Jennifer Hanley at 701-353-6139. They will coordinate with adjacent landowners as needed.

Appendix G. Aquatic Resource Excel Table

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
A-OW-01	NWO-2023-00465_A-OW-01	Section 404	PEM1C	47.030154	-98.637183	Field Delineation	0.09
A-OW-02	NWO-2023-00465_A-OW-02	Section 404	PABGh	47.03029	-98.621125	Field Delineation	1.26
A-OW-03	NWO-2023-00465_A-OW-03	Section 404	PEM1C	47.030318	-98.612919	Field Delineation	0.66
A-OW-19	NWO-2023-00465_A-OW-19	Section 404	R4SBC	46.89624	-98.56496	Field Delineation	1.25
A-OW-22	NWO-2023-00465_A-OW-22	Section 10/404	R4SBC	46.887655	-98.564916	Field Delineation	0.28
A-OW-27	NWO-2023-00465_A-OW-27	Section 404	R2UBH	46.871206	-98.584728	Field Delineation	3.05
A-OW-28	NWO-2023-00465_A-OW-28	Section 404	R4SBC	46.855095	-98.587274	Field Delineation	0.19
A-OW-29	NWO-2023-00465_A-OW-29	Section 404	PEM1A	46.856689	-98.581271	Field Delineation	0.32
A-W-001	NWO-2023-00465_A-W-001	Section 404	PEM1A	47.030374	-98.675723	Field Delineation	0.44
A-W-008	NWO-2023-00465_A-W-008	Section 404	PEM1C	47.030004	-98.661	Desktop Delineation	1.43
A-W-009	NWO-2023-00465_A-W-009	Section 404	PEM1C	47.029978	-98.658384	Field Delineation	0.79
A-W-013	NWO-2023-00465_A-W-013	Section 404	PEM1A	47.030048	-98.651107	Field Delineation	0.41

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
A-W-014	NWO-2023-00465_A-W-014	Section 404	PEM1C	47.029917	-98.644223	Field Delineation	0.20
A-W-015	NWO-2023-00465_A-W-015	Section 404	PEM1A	47.029972	-98.641821	Field Delineation	0.34
A-W-016	NWO-2023-00465_A-W-016	Section 404	PEM1A	47.03008	-98.640525	Field Delineation	0.19
A-W-017	NWO-2023-00465_A-W-017	Section 404	PEM1C	47.029975	-98.634702	Desktop Delineation	0.08
A-W-023	Not Included in PJD	Not Included in PJD	PEM1C	47.01149	-98.613836	Desktop Delineation	0.002
A-W-146	NWO-2023-00465_A-W-146	Section 404	PEM1A	46.892524	-98.565214	Field Delineation	0.02
A-W-152	NWO-2023-00465_A-W-152	Section 404	PEM1A	46.88711	-98.564953	Desktop Delineation	0.08
A-W-153	NWO-2023-00465_A-W-153	Section 404	PEM1A	46.88805	-98.56478	Desktop Delineation	0.58
A-W-154	NWO-2023-00465_A-W-154	Section 404	R4SBC	46.888611	-98.565113	Desktop Delineation	0.17
A-W-160	NWO-2023-00465_A-W-160	Section 404	PEM1A	46.885056	-98.564949	Desktop Delineation	1.52
A-W-184	Not Included in PJD	Not Included in PJD	PABF	46.870449	-98.574851	Field Delineation	1.08
A-W-186	Not Included in PJD	Not Included in PJD	PEM1C	46.869616	-98.580909	Field Delineation	0.32

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
A-W-187	Not Included in PJD	Not Included in PJD	R2UBH	46.87065	-98.580694	Desktop Delineation	0.01
A-W-190	NWO-2023-00465_A-W-190	Section 404	R2UBH	46.870547	-98.584784	Field Delineation	0.02
A-W-203	NWO-2023-00465_A-W-203	Section 404	PEM1C	46.85501	-98.595972	Field Delineation	0.60
A-W-206	NWO-2023-00465_A-W-206	Section 404	PEM1C	46.855096	-98.594151	Field Delineation	0.57
FD-AB-001	NWO-2023-00465_FD-AB-001	Section 404	PEM1A	47.030286	-98.676871	Field Delineation	0.10
FD-AB-002	NWO-2023-00465_FD-AB-002	Section 404	PEM1C	47.029974	-98.657743	Field Delineation	0.09
FD-ab-010	NWO-2023-00465_FD-ab-010	Section 404	PEM1C	46.627511	-98.62094	Field Delineation	0.52
FD-ab-011	NWO-2023-00465_FD-ab-011	Section 404	PEM1C	46.625106	-98.621072	Field Delineation	0.71
FD-ab-012	NWO-2023-00465_FD-ab-012	Section 404	PEM1A	46.585873	-98.620023	Field Delineation	0.22

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-ab-013	NWO-2023-00465_FD-ab-013	Section 404	PEM1C	46.584639	-98.620024	Field Delineation	0.20
FD-ab-014	NWO-2023-00465_FD-ab-014	Section 404	PEM1C	46.529895	-98.615574	Field Delineation	0.28
FD-ab-015	NWO-2023-00465_FD-ab-015	Section 404	PEM1C	46.529731	-98.612469	Field Delineation	0.12
FD-ab-016	NWO-2023-00465_FD-ab-016	Section 404	R4SBC	46.529806	-98.611733	Field Delineation	0.26
FD-ab-019	NWO-2023-00465_FD-ab-019	Section 404	R4SBC	46.528259	-98.631385	Field Delineation	0.17
FD-ab-020	NWO-2023-00465_FD-ab-020	Section 404	PEM1A	46.501818	-98.63154	Field Delineation	0.70
FD-ab-021	NWO-2023-00465_FD-ab-021	Section 404	PEM1A	46.495821	-98.631821	Field Delineation	0.04
FD-ab-023	NWO-2023-00465_FD-ab-023	Section 404	PEM1A	46.363288	-98.609789	Field Delineation	0.32

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-ab-024	NWO-2023-00465_FD-ab-024	Section 404	PEM1/ABF	46.24895	-98.596892	Field Delineation	0.17
FD-AB-029	NWO-2023-00465_FD-AB-029	Section 404	PEM1C	46.227083	-98.546708	Field Delineation	0.22
FD-AB-030	NWO-2023-00465_FD-AB-030	Section 404	PEM1C	46.226985	-98.545436	Field Delineation	0.60
FD-AB-031	NWO-2023-00465_FD-AB-031	Section 404	PEM1C	46.227014	-98.544472	Field Delineation	0.59
FD-ab-032	NWO-2023-00465_FD-AB-032	Section 404	PEM1C	46.227036	-98.541396	Field Delineation	0.63
FD-ab-033	NWO-2023-00465_FD-AB-033	Section 404	PEM1A	46.036117	-98.557995	Field Delineation	3.85
FD-ab-034	NWO-2023-00465_FD-AB-034	Section 404	PEM1/ABF	46.008585	-98.564633	Field Delineation	4.38
FD-ab-035	NWO-2023-00465_FD-AB-035	Section 404	PEM1A	46.606398	-98.619705	Field Delineation	0.08

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-ab-036	NWO-2023-00465_FD-AB-036	Section 404	PEM1A	46.934303	-98.549365	Field Delineation	2.45
FD-ab-037	NWO-2023-00465_FD-AB-037	Section 404	PEM1A	46.935122	-98.548905	Field Delineation	0.01
FD-ab-038	NWO-2023-00465_FD-AB-038	Section 404	PEM1A	46.931556	-98.549724	Field Delineation	2.45
FD-ab-040	NWO-2023-00465_FD-ab-040	Section 404	PEM1A	46.93623	-98.549161	Field Delineation	0.47
FD-ab-041	NWO-2023-00465_FD-ab-041	Section 404	PEM1A	46.91725	-98.552071	Field Delineation	4.98
FD-ab-042	NWO-2023-00465_FD-ab-042	Section 404	PEM1C	46.912212	-98.556245	Field Delineation	0.88
FD-ab-043	NWO-2023-00465_FD-ab-043	Section 404	PEM1C	46.042569	-98.55813	Field Delineation	0.85
FD-ab-044	Not Included in PJD	Not Included in PJD	PEM1C	46.901767	-98.564791	Field Delineation	0.69

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-ab-045	Not Included in PJD	Not Included in PJD	PEM1C	46.903535	-98.564927	Field Delineation	0.92
FD-ab-046	Not Included in PJD	Not Included in PJD	PEM1A	46.72925	-98.606913	Field Delineation	0.52
FD-ab-048	Not Included in PJD	Not Included in PJD	PEM1A	46.894017	-98.56491	Field Delineation	0.27
FD-GR-001	NWO-2023-00465_FD-GR-001	Section 404	PEM1C	46.298855	-98.609375	Field Delineation	0.12
FD-GR-002	NWO-2023-00465_FD-GR-002	Section 404	PEM1A	46.253829	-98.597086	Field Delineation	0.22
FD-GR-003	NWO-2023-00465_FD-GR-003	Section 404	PEM1A	46.247223	-98.597112	Field Delineation	0.19
FD-GR-004	NWO-2023-00465_FD-GR-004	Section 404	PEM1A	46.242886	-98.59729	Field Delineation	0.03
FD-GR-008	NWO-2023-00465_FD-GR-008	Section 404	PEM1C	46.227006	-98.576399	Field Delineation	0.14
FD-GR-009	NWO-2023-00465_FD-GR-009	Section 404	R4SBC	46.227228	-98.562184	Field Delineation	0.20

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-GR-010	NWO-2023-00465_FD-GR-010	Section 404	PEM1C	46.227011	-98.550829	Field Delineation	2.54
FD-GR-011	NWO-2023-00465_FD-GR-011	Section 404	PEM1A	46.227118	-98.543047	Field Delineation	0.03
FD-rk-001	NWO-2023-00465_FD-rk-001	Section 404	PEM1C	46.724774	-98.607972	Field Delineation	0.05
FD-rk-002	NWO-2023-00465_FD-rk-002	Section 404	PEM1A	46.587049	-98.619856	Field Delineation	0.62
FD-rk-003	NWO-2023-00465_FD-rk-003	Section 404	PEM1A	46.529826	-98.613968	Field Delineation	0.20
FD-rk-007	NWO-2023-00465_FD-rk-007	Section 404	PEM1C	46.506907	-98.631593	Field Delineation	0.08
FD-rk-008	NWO-2023-00465_FD-rk-008	Section 404	PEM1A	46.503149	-98.631511	Field Delineation	0.69
FD-rk-009	NWO-2023-00465_FD-rk-009	Section 404	PEM1A	46.499768	-98.631598	Field Delineation	1.84
FD-rk-010	NWO-2023-00465_FD-rk-010	Section 404	PEM1C	46.498027	-98.631641	Field Delineation	0.70
FD-rk-011	NWO-2023-00465_FD-rk-011	Section 404	PEM1/FOC	46.493195	-98.631468	Field Delineation	0.23
FD-rk-012	NWO-2023-00465_FD-rk-012	Section 404	PEM1C	46.491779	-98.631565	Field Delineation	2.33

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
FD-rk-022	NWO-2023-00465_FD-rk-022	Section 404	PEM1A	46.487388	-98.63158	Field Delineation	0.32
FD-TL-001	Not included in PJD	Not included in PJD	PEM1C	46.580503	-98.61177	Field Delineation	0.06
Fed-ab-042	Not included in PJD	Not included in PJD	PEM1C	46.860914	-98.581145	Field Delineation	0.21
OW-10	NWO-2023-00465_OW-10	Section 404	R4SBC	46.818496	-98.594746	Desktop Delineation	0.03
OW-11	NWO-2023-00465_OW-11	Section 404	R4SBC	46.81824	-98.59437	Desktop Delineation	0.25
OW-12	NWO-2023-00465_OW-12	Section 404	PEM1C	46.76738	-98.596782	Desktop Delineation	0.93
OW-15	NWO-2023-00465_OW-15	Section 404	R4SBC	46.712769	-98.633885	Field Delineation	0.13
OW-16	NWO-2023-00465_OW-16	Section 404	PEM1C	46.684782	-98.650203	Field Delineation	0.19
OW-23	NWO-2023-00465_OW-23	Section 404	R4SBC	46.541184	-98.610716	Desktop Delineation	0.30
OW-24	NWO-2023-00465_OW-24	Section 404	R4SBC	46.532324	-98.610412	Field Delineation	0.82
OW-28	NWO-2023-00465_OW-28	Section 404	PEM1Cd	46.458388	-98.610145	Field Delineation	2.89
OW-29	NWO-2023-00465_OW-29	Section 404	PEM1Ad	46.455226	-98.61008	Field Delineation	0.79

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
OW-30	NWO-2023-00465_OW-30	Section 404	PEM1C	46.428525	-98.610017	Desktop Delineation	0.24
OW-31	NWO-2023-00465_OW-31	Section 404	PEM1C	46.419932	-98.609957	Field Delineation	0.12
OW-32	NWO-2023-00465_OW-32	Section 404	R4SBC	46.390778	-98.609806	Field Delineation	0.12
OW-33	NWO-2023-00465_OW-33	Section 404	R5UBH	46.385847	-98.609835	Field Delineation	1.31
OW-34	NWO-2023-00465_OW-34	Section 404	PEM1C	46.346001	-98.609596	Desktop Delineation	0.46
OW-35	NWO-2023-00465_OW-35	Section 404	PEM1C	46.343965	-98.609615	Desktop Delineation	0.19
OW-36	NWO-2023-00465_OW-36	Section 404	PEM1C	46.336821	-98.609691	Desktop Delineation	0.05
OW-37	NWO-2023-00465_OW-37	Section 404	PEM1C	46.325434	-98.60948	Field Delineation	0.04
OW-38a	NWO-2023-00465_OW-38a	Section 404	PEM1C	46.306784	-98.609419	Field Delineation	0.10
OW-38b	NWO-2023-00465_OW-38b	Section 404	PEM1C	46.305353	-98.609378	Field Delineation	0.24
OW-39	NWO-2023-00465_OW-39	Section 404	PEM1C	46.299297	-98.609324	Field Delineation	0.46
OW-42	NWO-2023-00465_OW-42	Section 404	PEM1C	46.201821	-98.534805	Field Delineation	2.02

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OW-43	NWO-2023-00465_OW-43	Section 404	PEM1C	46.199877	-98.534786	Field Delineation	0.95
OW-44	NWO-2023-00465_OW-44	Section 404	R5UBH	46.193116	-98.534801	Field Delineation	2.70
OW-45	NWO-2023-00465_OW-45	Section 404	R4SBC	46.181391	-98.535047	Field Delineation	0.50
OW-46a	NWO-2023-00465_OW-46a	Section 404	R4SBC	46.143849	-98.535387	Desktop Delineation	0.03
OW-46b	NWO-2023-00465_OW-46b	Section 404	R4SBC	46.143791	-98.535764	Desktop Delineation	0.11
OW-47	NWO-2023-00465_OW-47	Section 404	PEM1C	46.105988	-98.557147	Field Delineation	0.45
OW-48	NWO-2023-00465_OW-48	Section 404	R4SBC	46.047902	-98.557964	Field Delineation	0.20
OW-49	NWO-2023-00465_OW-49	Section 404	PEM1A	47.003191	-98.585382	Field Delineation	2.10
OW-50	NWO-2023-00465_OW-50	Section 404	R4SBC	46.940711	-98.551265	Field Delineation	0.18
OW-51	NWO-2023-00465_OW-51	Section 404	PEM1A	46.90803	-98.563367	Field Delineation	0.34
OW-52	NWO-2023-00465_OW-52	Section 404	PEM1A	46.573755	-98.600165	Field Delineation	6.31
OW-53	NWO-2023-00465_OW-53	Section 404	PABFh	46.569652	-98.600246	Field Delineation	0.96

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OW-54	NWO-2023-00465_OW-54	Section 404	PEM1C	46.56074	-98.600489	Desktop Delineation	0.43
OW-55	Not included in PJD	Not included in PJD	R4SBC	46.717491	-98.622664	Desktop Delineation	0.33
W-074	NWO-2023-00465_W-074	Section 404	PEM1C	46.854491	-98.59701	Field Delineation	1.13
W-075	NWO-2023-00465_W-075	Section 404	PEM1C	46.853092	-98.597026	Field Delineation	0.38
W-076	NWO-2023-00465_W-076	Section 404	PEM1C	46.850671	-98.597242	Field Delineation	1.30
W-078	NWO-2023-00465_W-078	Section 404	PEM1Cx	46.84833	-98.597387	Field Delineation	0.03
W-079	NWO-2023-00465_W-079	Section 404	PEM1A	46.840437	-98.597294	Field Delineation	0.37
W-081	NWO-2023-00465_W-081	Section 404	PEM1A	46.835439	-98.597152	Desktop Delineation	0.01
W-084	NWO-2023-00465_W-084	Section 404	PEM1C	46.830948	-98.597244	Desktop Delineation	0.09
W-085	NWO-2023-00465_W-085	Section 404	PEM1C	46.828997	-98.597018	Desktop Delineation	0.64
W-087	NWO-2023-00465_W-087	Section 404	PEM1C	46.826091	-98.59639	Field Delineation	0.001
W-088	NWO-2023-00465_W-088	Section 404	PEM1C	46.826035	-98.595846	Desktop Delineation	0.04

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W-089	NWO-2023-00465_W-089	Section 404	PEM1C	46.825369	-98.596124	Field Delineation	0.01
W-090	NWO-2023-00465_W-090	Section 404	PEM1C	46.825291	-98.595542	Field Delineation	0.01
W-094	NWO-2023-00465_W-094	Section 404	PEM1Cx	46.820556	-98.594657	Field Delineation	1.19
W-096	NWO-2023-00465_W-096	Section 404	PEM1A	46.811968	-98.594301	Desktop Delineation	0.05
W-097	NWO-2023-00465_W-097	Section 404	PEM1A	46.8101	-98.594431	Desktop Delineation	0.98
W-098	NWO-2023-00465_W-098	Section 404	PEM1A	46.810727	-98.594762	Desktop Delineation	0.01
W-101	NWO-2023-00465_W-101	Section 404	PEM1A	46.809301	-98.594284	Desktop Delineation	0.07
W-102	NWO-2023-00465_W-102	Section 404	PEM1A	46.80922	-98.594648	Desktop Delineation	0.03
W-107	NWO-2023-00465_W-107	Section 404	PEM1A	46.798033	-98.594276	Desktop Delineation	0.23
W-108	NWO-2023-00465_W-108	Section 404	PEM1A	46.797813	-98.594707	Desktop Delineation	0.0004
W-110	NWO-2023-00465_W-110	Section 404	PEM1Ad	46.79511	-98.594374	Desktop Delineation	1.19
W-111	NWO-2023-00465_W-111	Section 404	PEM1Ad	46.792477	-98.594407	Desktop Delineation	4.37

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W-112	NWO-2023-00465_W-112	Section 404	PEM1C	46.790242	-98.594351	Desktop Delineation	0.43
W-114	NWO-2023-00465_W-114	Section 404	PEM1C	46.782547	-98.596781	Desktop Delineation	0.55
W-115	NWO-2023-00465_W-115	Section 404	PEM1A	46.781535	-98.596798	Desktop Delineation	0.06
W-117	NWO-2023-00465_W-117	Section 404	PEM1A	46.780507	-98.596567	Desktop Delineation	0.09
W-118	NWO-2023-00465_W-118	Section 404	PEM1A	46.779797	-98.596486	Desktop Delineation	0.01
W-119	NWO-2023-00465_W-119	Section 404	PEM1C	46.778116	-98.596525	Desktop Delineation	0.09
W-121	NWO-2023-00465_W-121	Section 404	PEM1A	46.77768	-98.597006	Desktop Delineation	0.01
W-122	NWO-2023-00465_W-122	Section 404	PEM1A	46.776818	-98.596976	Desktop Delineation	0.07
W-123	NWO-2023-00465_W-123	Section 404	PEM1C	46.773677	-98.596984	Desktop Delineation	0.32
W-124	NWO-2023-00465_W-124	Section 404	PFOA	46.77331	-98.59666	Desktop Delineation	0.09
W-127	NWO-2023-00465_W-127	Section 404	PEM1C	46.756734	-98.596871	Desktop Delineation	0.84
W-170	NWO-2023-00465_W-170	Section 404	PEM1C	46.724918	-98.614271	Field Delineation	0.06

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W-175	NWO-2023-00465_W-175	Section 404	PEM1C	46.725244	-98.606744	Field Delineation	0.76
W-178	NWO-2023-00465_W-178	Section 404	PEM1Cx	46.724852	-98.607998	Desktop Delineation	0.10
W-180	NWO-2023-00465_W-180	Section 404	PEM1Cx	46.724902	-98.612913	Desktop Delineation	0.06
W-182	NWO-2023-00465_W-182	Section 404	PEM1C	46.703712	-98.640188	Desktop Delineation	0.23
W-183	NWO-2023-00465_W-183	Section 404	PEM1C	46.703659	-98.641979	Desktop Delineation	0.05
W-190	NWO-2023-00465_W-190	Section 404	PEM1A	46.686968	-98.650108	Field Delineation	0.05
W-193	NWO-2023-00465_W-193	Section 404	PEM1Ad	46.681436	-98.650526	Field Delineation	0.12
W-194	NWO-2023-00465_W-194	Section 404	PEM1C	46.679694	-98.650363	Desktop Delineation	0.38
W-197	NWO-2023-00465_W-197	Section 404	PEM1Cx	46.674727	-98.65037	Field Delineation	0.29
W-205	NWO-2023-00465_W-205	Section 404	PEM1C	46.656242	-98.650426	Field Delineation	0.56
W-212	Not included in PJD	Not included in PJD	PEM1C	46.649734	-98.649031	Field Delineation	0.75
W-213	NWO-2023-00465_W-213	Section 404	PEM1A	46.646873	-98.650413	Field Delineation	0.06

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W-217	NWO-2023-00465_W-217	Section 404	PEM1Ax	46.629742	-98.621007	Field Delineation	0.87
W-218	NWO-2023-00465_W-218	Section 404	PEM1Ax	46.630217	-98.624575	Field Delineation	2.70
W-219	NWO-2023-00465_W-219	Section 404	PEM1A	46.630206	-98.639262	Desktop Delineation	1.30
W-220	NWO-2023-00465_W-220	Section 404	PEM1A	46.630375	-98.630678	Field Delineation	0.06
W-221	NWO-2023-00465_W-221	Section 404	PEM1A	46.630371	-98.641299	Desktop Delineation	0.01
W-222	NWO-2023-00465_W-222	Section 404	PEM1A	46.630393	-98.646282	Desktop Delineation	0.03
W-223	NWO-2023-00465_W-223	Section 404	PEM1A	46.630212	-98.647674	Desktop Delineation	1.24
W-225	Not included in PJD	Not included in PJD	PEM1A	46.630063	-98.637822	Desktop Delineation	0.13
W-244	NWO-2023-00465_W-244	Section 404	PEM1A	46.58056	-98.611178	Desktop Delineation	0.04
W-246	NWO-2023-00465_W-246	Section 404	PEM1A	46.579809	-98.610507	Field Delineation	0.06
W-247	NWO-2023-00465_W-247	Section 404	PEM1C	46.579592	-98.608813	Field Delineation	0.91
W-263	NWO-2023-00465_W-263	Section 404	PEM1C	46.55896	-98.609828	Field Delineation	0.08

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W-265	NWO-2023-00465_W-265	Section 404	PEM1A	46.556299	-98.610778	Field Delineation	0.35
W-274	NWO-2023-00465_W-274	Section 404	PEM1A	46.54412	-98.610801	Field Delineation	0.22
W-275	NWO-2023-00465_W-275	Section 404	PEM1A	46.543549	-98.610752	Field Delineation	0.51
W-278	NWO-2023-00465_W-278	Section 404	PEM1A	46.535804	-98.610658	Desktop Delineation	0.09
W-028	NWO-2023-00465_W-028	Section 404	PEM1A	47.006769	-98.612741	Desktop Delineation	0.41
W-301	NWO-2023-00465_W-301	Section 404	PEM1C	46.470124	-98.610067	Field Delineation	0.63
W-302	NWO-2023-00465_W-302	Section 404	PEM1A	46.466849	-98.610085	Desktop Delineation	0.29
W-304	NWO-2023-00465_W-304	Section 404	PEM1C	46.464749	-98.610473	Desktop Delineation	0.001
W-306	NWO-2023-00465_W-306	Section 404	PEM1C	46.463468	-98.610351	Field Delineation	0.18
W-308	NWO-2023-00465_W-308	Section 404	PEM1C	46.462555	-98.609881	Field Delineation	0.002
W-310	NWO-2023-00465_W-310	Section 404	PEM1A	46.450475	-98.610338	Desktop Delineation	0.04
W-312	NWO-2023-00465_W-312	Section 404	PEM1A	46.448039	-98.610269	Desktop Delineation	0.25

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W-313	NWO-2023-00465_W-313	Section 404	PEM1C	46.438002	-98.61031	Desktop Delineation	0.01
W-315	NWO-2023-00465_W-315	Section 404	PEM1C	46.435665	-98.610224	Desktop Delineation	0.12
W-319	NWO-2023-00465_W-319	Section 404	PEM1C	46.428758	-98.610256	Desktop Delineation	0.01
W-320	NWO-2023-00465_W-320	Section 404	PEM1C	46.413328	-98.609985	Desktop Delineation	0.32
W-321	NWO-2023-00465_W-321	Section 404	PEM1A	46.412049	-98.61013	Desktop Delineation	0.10
W-323	NWO-2023-00465_W-323	Section 404	PEM1C	46.399343	-98.609866	Desktop Delineation	0.67
W-326	NWO-2023-00465_W-326	Section 404	PEM1C	46.395353	-98.610163	Field Delineation	0.01
W-329	NWO-2023-00465_W-329	Section 404	PEM1C	46.392358	-98.610033	Field Delineation	0.33
W-334	NWO-2023-00465_W-334	Section 404	PEM1A	46.388116	-98.609579	Desktop Delineation	0.05
W-335	NWO-2023-00465_W-335	Section 404	PEM1A	46.38411	-98.609989	Desktop Delineation	0.15
W-336	NWO-2023-00465_W-336	Section 404	PEM1A	46.380617	-98.610041	Desktop Delineation	0.06
W-338	NWO-2023-00465_W-338	Section 404	PEM1C	46.378366	-98.609795	Desktop Delineation	1.33

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W-339	NWO-2023-00465_W-339	Section 404	PEM1C	46.37759	-98.609624	Desktop Delineation	0.22
W-341	NWO-2023-00465_W-341	Section 404	PEM1C	46.376584	-98.609963	Field Delineation	0.38
W-342	NWO-2023-00465_W-342	Section 404	PEM1C	46.376803	-98.609576	Desktop Delineation	0.08
W-343	NWO-2023-00465_W-343	Section 404	PEM1C	46.376279	-98.609661	Field Delineation	0.17
W-345	NWO-2023-00465_W-345	Section 404	PEM1/ABF	46.375438	-98.610058	Field Delineation	0.03
W-347	NWO-2023-00465_W-347	Section 404	PEM1C	46.373723	-98.609869	Field Delineation	0.33
W-348	NWO-2023-00465_W-348	Section 404	PEM1C	46.370874	-98.609809	Field Delineation	0.19
W-349	NWO-2023-00465_W-349	Section 404	PEM1C	46.370297	-98.610073	Desktop Delineation	0.005
W-350	NWO-2023-00465_W-350	Section 404	PEM1C	46.369898	-98.60998	Desktop Delineation	0.09
W-351	NWO-2023-00465_W-351	Section 404	PEM1C	46.369668	-98.609804	Field Delineation	0.13
W-353	NWO-2023-00465_W-353	Section 404	PEM1A	46.369317	-98.609876	Field Delineation	0.10
W-354	NWO-2023-00465_W-354	Section 404	PEM1A	46.36875	-98.610008	Field Delineation	0.04

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W-355	NWO-2023-00465_W-355	Section 404	PEM1C	46.366102	-98.609791	Field Delineation	0.34
W-356	Not Included in PJD	Not Included in PJD	PEM1A	46.36576	-98.609791	Field Delineation	0.17
W-358	NWO-2023-00465_W-358	Section 404	PEM1A	46.356292	-98.608686	Desktop Delineation	0.01
W-359	NWO-2023-00465_W-359	Section 404	PEM1Ad	46.35034	-98.609178	Desktop Delineation	0.02
W-361	NWO-2023-00465_W-361	Section 404	PEM1A	46.347054	-98.609394	Desktop Delineation	0.06
W-363	NWO-2023-00465_W-363	Section 404	PEM1C	46.344983	-98.609599	Desktop Delineation	0.05
W-365	NWO-2023-00465_W-365	Section 404	PEM1C	46.341775	-98.609419	Desktop Delineation	0.12
W-367	NWO-2023-00465_W-367	Section 404	PEM1Cd	46.333799	-98.609373	Desktop Delineation	0.13
W-368	NWO-2023-00465_W-368	Section 404	PEM1C	46.327614	-98.609685	Desktop Delineation	0.21
W-369	NWO-2023-00465_W-369	Section 404	PEM1C	46.326204	-98.609685	Field Delineation	0.05
W-371	NWO-2023-00465_W-371	Section 404	PEM1Ad	46.318072	-98.61021	Desktop Delineation	0.31
W-372	NWO-2023-00465_W-372	Section 404	PEM1C	46.31952	-98.610243	Desktop Delineation	0.09

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W-373	NWO-2023-00465_W-373	Section 404	PEM1Ad	46.318174	-98.610311	Desktop Delineation	1.01
W-375	NWO-2023-00465_W-375	Section 404	PEM1Ad	46.315586	-98.61034	Desktop Delineation	0.03
W-378	NWO-2023-00465_W-378	Section 404	PEM1A	46.312102	-98.609703	Desktop Delineation	0.08
W-381	NWO-2023-00465_W-381	Section 404	PEM1A	46.302521	-98.609635	Desktop Delineation	0.02
W-382	NWO-2023-00465_W-382	Section 404	PEM1A	46.2972	-98.609121	Field Delineation	0.12
W-383	NWO-2023-00465_W-383	Section 404	PEM1C	46.294989	-98.609487	Field Delineation	0.41
W-387	NWO-2023-00465_W-387	Section 404	PEM1C	46.282258	-98.604649	Field Delineation	2.19
W-399	NWO-2023-00465_W-399	Section 404	PEM1Cx	46.282023	-98.597003	Field Delineation	2.30
W-401	NWO-2023-00465_W-401	Section 404	PEM1C	46.282288	-98.599564	Field Delineation	0.40
W-419	NWO-2023-00465_W-419	Section 404	PEM1Cx	46.226878	-98.535032	Field Delineation	10.01
W-420	NWO-2023-00465_W-420	Section 404	PEM1C	46.216314	-98.534715	Field Delineation	1.51
W-421	NWO-2023-00465_W-421	Section 404	PEM1C	46.2133	-98.534601	Field Delineation	0.31

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W-422	NWO-2023-00465_W-422	Section 404	PEM1/ABF	46.211723	-98.534468	Field Delineation	0.12
W-423	NWO-2023-00465_W-423	Section 404	PEM1C	46.212409	-98.53493	Desktop Delineation	0.06
W-424	NWO-2023-00465_W-424	Section 404	PEM1A	46.210446	-98.534815	Field Delineation	0.45
W-426	NWO-2023-00465_W-426	Section 404	PEM1A	46.206879	-98.534562	Field Delineation	0.12
W-430	NWO-2023-00465_W-430	Section 404	PEM1A	46.198327	-98.535023	Desktop Delineation	0.01
W-431	NWO-2023-00465_W-431	Section 404	PEM1A	46.198329	-98.534561	Desktop Delineation	0.01
W-432	NWO-2023-00465_W-432	Section 404	PEM1C	46.188606	-98.534815	Desktop Delineation	0.22
W-433	NWO-2023-00465_W-433	Section 404	PEM1C	46.182477	-98.535033	Field Delineation	0.22
W-434	NWO-2023-00465_W-434	Section 404	PEM1A	46.18067	-98.53505	Field Delineation	0.45
W-436	NWO-2023-00465_W-436	Section 404	PEM1A	46.177412	-98.535238	Field Delineation	0.37
W-439	NWO-2023-00465_W-439	Section 404	PEM1A	46.171487	-98.535225	Field Delineation	1.24
W-440	NWO-2023-00465_W-440	Section 404	PEM1Cx	46.16985	-98.53524	Field Delineation	1.09

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-441	NWO-2023-00465_W-441	Section 404	PEM1/ABF	46.168694	-98.535232	Field Delineation	1.58
W-442	NWO-2023-00465_W-442	Section 404	PEM1A	46.166459	-98.535443	Field Delineation	0.15
W-443	NWO-2023-00465_W-443	Section 404	PEM1A	46.165867	-98.535016	Desktop Delineation	0.02
W-444	NWO-2023-00465_W-444	Section 404	PEM1A	46.165447	-98.535486	Desktop Delineation	0.12
W-445	NWO-2023-00465_W-445	Section 404	PEM1C	46.164661	-98.535275	Field Delineation	0.34
W-446	NWO-2023-00465_W-446	Section 404	PEM1C	46.163667	-98.535162	Desktop Delineation	0.11
W-447	NWO-2023-00465_W-447	Section 404	PEM1C	46.162497	-98.535162	Field Delineation	0.14
W-449	NWO-2023-00465_W-449	Section 404	PEM1C	46.15982	-98.535259	Field Delineation	0.07
W-451	NWO-2023-00465_W-451	Section 404	PEM1C	46.157334	-98.535445	Field Delineation	1.58
W-452	NWO-2023-00465_W-452	Section 404	PEM1Cx	46.156556	-98.535534	Field Delineation	0.14
W-456	NWO-2023-00465_W-456	Section 404	PEM1A	46.154374	-98.535624	Desktop Delineation	0.05
W-457	NWO-2023-00465_W-457	Section 404	PEM1C	46.152337	-98.535232	Desktop Delineation	0.04

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-459	NWO-2023-00465_W-459	Section 404	PEM1C	46.152174	-98.535748	Desktop Delineation	0.08
W-461	NWO-2023-00465_W-461	Section 404	PEM1A	46.150987	-98.535249	Desktop Delineation	0.01
W-463	NWO-2023-00465_W-463	Section 404	PEM1Ad	46.145746	-98.535634	Desktop Delineation	0.73
W-465	NWO-2023-00465_W-465	Section 404	PEM1A	46.144823	-98.535712	Desktop Delineation	0.07
W-469	NWO-2023-00465_W-469	Section 404	PEM1/ABF	46.134001	-98.535773	Field Delineation	3.36
W-471	NWO-2023-00465_W-471	Section 404	PEM1A	46.130826	-98.535687	Field Delineation	0.21
W-475	NWO-2023-00465_W-475	Section 404	PEM1A	46.125852	-98.53644	Field Delineation	0.02
W-476	NWO-2023-00465_W-476	Section 404	PEM1C	46.125021	-98.536248	Field Delineation	1.09
W-477	NWO-2023-00465_W-477	Section 404	PEM1A	46.123555	-98.536259	Desktop Delineation	0.17
W-478	NWO-2023-00465_W-478	Section 404	PEM1A	46.123577	-98.535982	Desktop Delineation	0.01
W-480	NWO-2023-00465_W-480	Section 404	PEM1C	46.120264	-98.536339	Field Delineation	2.42
W-482	NWO-2023-00465_W-482	Section 404	PEM1C	46.118391	-98.536346	Field Delineation	1.23

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-486	NWO-2023-00465_W-486	Section 404	PEM1C	46.11492	-98.536168	Desktop Delineation	0.13
W-491	NWO-2023-00465_W-491	Section 404	PEM1C	46.112042	-98.544137	Field Delineation	0.21
W-492	NWO-2023-00465_W-492	Section 404	PEM1C	46.112333	-98.536131	Desktop Delineation	0.05
W-493	NWO-2023-00465_W-493	Section 404	PEM1C	46.112213	-98.546621	Desktop Delineation	0.001
W-494	NWO-2023-00465_W-494	Section 404	PEM1Cx	46.112225	-98.546409	Desktop Delineation	0.003
W-495	NWO-2023-00465_W-495	Section 404	PEM1C	46.112184	-98.541167	Field Delineation	0.01
W-496	NWO-2023-00465_W-496	Section 404	PEM1Cx	46.112072	-98.553944	Field Delineation	0.27
W-497	NWO-2023-00465_W-497	Section 404	PEM1C	46.112124	-98.536999	Field Delineation	0.08
W-505	NWO-2023-00465_W-505	Section 404	PEM1Ad	46.108859	-98.556856	Field Delineation	0.21
W-506	NWO-2023-00465_W-506	Section 404	PEM1Ad	46.107744	-98.557071	Field Delineation	0.08
W-507	NWO-2023-00465_W-507	Section 404	PEM1C	46.10381	-98.557127	Desktop Delineation	0.05
W-508	NWO-2023-00465_W-508	Section 404	PEM1C	46.101085	-98.557281	Field Delineation	0.29

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-510	NWO-2023-00465_W-510	Section 404	PEM1Cx	46.100087	-98.557339	Field Delineation	0.44
W-511	NWO-2023-00465_W-511	Section 404	PEM1Cx	46.099562	-98.55748	Field Delineation	0.45
W-514	NWO-2023-00465_W-514	Section 404	PEM1C	46.093618	-98.557374	Field Delineation	0.44
W-515	NWO-2023-00465_W-515	Section 404	PEM1C	46.091349	-98.557396	Field Delineation	1.29
W-516	NWO-2023-00465_W-516	Section 404	PEM1C	46.090167	-98.55757	Field Delineation	0.11
W-518	NWO-2023-00465_W-518	Section 404	PEM1C	46.088324	-98.557155	Field Delineation	0.10
W-520	NWO-2023-00465_W-520	Section 404	PEM1C	46.086521	-98.557268	Desktop Delineation	0.71
W-521	NWO-2023-00465_W-521	Section 404	PEM1C	46.08665	-98.557605	Field Delineation	0.18
W-523	NWO-2023-00465_W-523	Section 404	PEM1C	46.084717	-98.557222	Desktop Delineation	0.11
W-524	NWO-2023-00465_W-524	Section 404	PEM1C	46.08285	-98.557238	Field Delineation	0.03
W-525	NWO-2023-00465_W-525	Section 404	PEM1C	46.082846	-98.557611	Desktop Delineation	0.01
W-526	NWO-2023-00465_W-526	Section 404	PEM1Cx	46.082641	-98.557356	Field Delineation	0.07

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-527	NWO-2023-00465_W-527	Section 404	PEM1Cx	46.08243	-98.557258	Field Delineation	0.11
W-529	NWO-2023-00465_W-529	Section 404	PEM1C	46.079425	-98.557492	Field Delineation	1.33
W-530	NWO-2023-00465_W-530	Section 404	PEM1A	46.077887	-98.557184	Field Delineation	0.05
W-532	NWO-2023-00465_W-532	Section 404	PEM1C	46.075898	-98.557691	Field Delineation	0.14
W-533	NWO-2023-00465_W-533	Section 404	PEM1C	46.073371	-98.557374	Field Delineation	0.45
W-535	NWO-2023-00465_W-535	Section 404	PEM1A	46.069631	-98.557676	Field Delineation	0.06
W-539	NWO-2023-00465_W-539	Section 404	PEM1Ad	46.066221	-98.557897	Desktop Delineation	0.001
W-540	NWO-2023-00465_W-540	Section 404	PEM1C	46.063539	-98.55769	Field Delineation	1.44
W-541	NWO-2023-00465_W-541	Section 404	PEM1Ad	46.061506	-98.55746	Field Delineation	0.03
W-542	NWO-2023-00465_W-542	Section 404	PEM1C	46.061347	-98.557896	Field Delineation	0.14
W-545	NWO-2023-00465_W-545	Section 404	PEM1C	46.054117	-98.557685	Field Delineation	0.13
W-546	NWO-2023-00465_W-546	Section 404	PEM1C	46.053731	-98.558133	Field Delineation	0.004

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-547	NWO-2023-00465_W-547	Section 404	PEM1Cx	46.05312	-98.557985	Field Delineation	0.67
W-549	NWO-2023-00465_W-549	Section 404	PEM1C	46.052232	-98.558016	Field Delineation	0.11
W-550	NWO-2023-00465_W-550	Section 404	PEM1C	46.051846	-98.557649	Field Delineation	0.13
W-551	NWO-2023-00465_W-551	Section 404	PEM1/ABF	46.050942	-98.557933	Field Delineation	0.35
W-554	NWO-2023-00465_W-554	Section 404	PEM1A	46.046841	-98.558199	Desktop Delineation	0.02
W-555	NWO-2023-00465_W-555	Section 404	PEM1C	46.041872	-98.557946	Field Delineation	0.97
W-557	NWO-2023-00465_W-557	Section 404	PEM1Cd	46.036003	-98.557758	Field Delineation	0.07
W-559	NWO-2023-00465_W-559	Section 404	PEM1Cd	46.033173	-98.558229	Field Delineation	0.05
W-560	NWO-2023-00465_W-560	Section 404	PEM1C	46.032063	-98.557813	Field Delineation	0.11
W-561	NWO-2023-00465_W-561	Section 404	PEM1C	46.030785	-98.557996	Field Delineation	0.79
W-564	NWO-2023-00465_W-564	Section 404	PEM1C	46.026883	-98.558148	Field Delineation	0.74
W-566	NWO-2023-00465_W-566	Section 404	PEM1C	46.023572	-98.558071	Desktop Delineation	0.50

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-573	NWO-2023-00465_W-573	Section 404	PEM1C	46.00611	-98.564451	Desktop Delineation	0.05
W-574	NWO-2023-00465_W-574	Section 404	PEM1C	46.855226	-98.585678	Desktop Delineation	0.09
W-575	NWO-2023-00465_W-575	Section 404	PEM1C	46.754321	-98.59835	Desktop Delineation	0.14
W-576	NWO-2023-00465_W-576	Section 404	PEM1A	46.754201	-98.600837	Desktop Delineation	0.64
W-577	NWO-2023-00465_W-577	Section 404	PEM1A	46.94957	-98.557555	Field Delineation	0.90
W-578	NWO-2023-00465_W-578	Section 404	PEM1Ax	46.925218	-98.550733	Field Delineation	2.07
W-579	NWO-2023-00465_W-579	Section 404	PEM1Ax	46.923154	-98.550903	Field Delineation	1.21
W-580	NWO-2023-00465_W-580	Section 404	PEM1A	46.753285	-98.606792	Desktop Delineation	0.52
W-581	NWO-2023-00465_W-581	Section 404	PEM1C	46.747481	-98.606668	Desktop Delineation	1.18
W-582	NWO-2023-00465_W-582	Section 404	PEM1C	46.74622	-98.606709	Desktop Delineation	1.75
W-583	NWO-2023-00465_W-583	Section 404	PEM1A	46.735885	-98.606523	Desktop Delineation	0.07
W-584	NWO-2023-00465_W-584	Section 404	PEM1A	46.734923	-98.606796	Desktop Delineation	0.70

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-585	NWO-2023-00465_W-585	Section 404	PEM1A	46.734092	-98.606818	Desktop Delineation	0.23
W-587	NWO-2023-00465_W-587	Section 404	PEM1Cd	46.6459	-98.656914	Field Delineation	0.50
W-590	NWO-2023-00465_W-590	Section 404	PEM1C	46.643423	-98.66055	Desktop Delineation	1.08
W-591	NWO-2023-00465_W-591	Section 404	PEM1A	46.640269	-98.660515	Desktop Delineation	1.17
W-592	NWO-2023-00465_W-592	Section 404	PEM1C	46.638254	-98.660561	Field Delineation	1.07
W-593	NWO-2023-00465_W-593	Section 404	PEM1C	46.633706	-98.660654	Field Delineation	0.47
W-595	NWO-2023-00465_W-595	Section 404	PEM1A	46.622157	-98.621042	Desktop Delineation	0.34
W-596	NWO-2023-00465_W-596	Section 404	PEM1A	46.620527	-98.621089	Desktop Delineation	0.61
W-597	NWO-2023-00465_W-597	Section 404	PEM1A	46.618205	-98.621143	Desktop Delineation	0.77
W-598	NWO-2023-00465_W-598	Section 404	PEM1C	46.599057	-98.619574	Desktop Delineation	0.36
W-599	NWO-2023-00465_W-599	Section 404	PEM1A	46.597941	-98.619787	Desktop Delineation	0.27
W-600	NWO-2023-00465_W-600	Section 404	PEM1C	46.595679	-98.619574	Desktop Delineation	0.13

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-601	NWO-2023-00465_W-601	Section 404	PEM1C	46.594776	-98.619762	Desktop Delineation	0.44
W-602	NWO-2023-00465_W-602	Section 404	PEM1A	46.593782	-98.620011	Desktop Delineation	0.04
W-603	NWO-2023-00465_W-603	Section 404	PEM1A	46.591033	-98.619584	Field Delineation	0.10
W-604	NWO-2023-00465_W-604	Section 404	PEM1C	46.581452	-98.619847	Field Delineation	1.28
W-605	NWO-2023-00465_W-605	Section 404	PEM1A	46.580657	-98.615033	Field Delineation	1.45
W-606	NWO-2023-00465_W-606	Section 404	PEM1C	46.579652	-98.606164	Field Delineation	1.29
W-607	NWO-2023-00465_W-607	Section 404	PEM1A	46.555543	-98.610851	Field Delineation	0.04
W-608	NWO-2023-00465_W-608	Section 404	PEM1A	46.552796	-98.610864	Field Delineation	0.07
W-609	NWO-2023-00465_W-609	Section 404	PEM1A	46.547332	-98.610938	Field Delineation	0.03
W-611	NWO-2023-00465_W-611	Section 404	PEM1A	46.507835	-98.631167	Desktop Delineation	0.58
W-612	NWO-2023-00465_W-612	Section 404	PEM1C	46.494813	-98.631534	Desktop Delineation	0.27
W-620	NWO-2023-00465_W-620	Section 404	PFOC	46.470921	-98.621523	Desktop Delineation	0.21

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-622	NWO-2023-00465_W-622	Section 404	PEM1A	46.280528	-98.597003	Desktop Delineation	0.10
W-623	NWO-2023-00465_W-623	Section 404	PEM1C	46.279098	-98.597037	Desktop Delineation	0.18
W-624	NWO-2023-00465_W-624	Section 404	PEM1A	46.278949	-98.596596	Desktop Delineation	0.05
W-625	NWO-2023-00465_W-625	Section 404	PEM1A	46.277393	-98.596915	Desktop Delineation	1.17
W-626	NWO-2023-00465_W-626	Section 404	PEM1A	46.268278	-98.596896	Desktop Delineation	1.47
W-627	NWO-2023-00465_W-627	Section 404	PEM1A	46.264394	-98.597009	Desktop Delineation	0.65
W-628	NWO-2023-00465_W-628	Section 404	PEM1/ABF	46.242795	-98.594644	Field Delineation	1.00
W-629	NWO-2023-00465_W-629	Section 404	PEM1A	46.242653	-98.58866	Field Delineation	0.36
W-630	NWO-2023-00465_W-630	Section 404	PEM1C	46.242739	-98.585404	Field Delineation	0.23
W-631	NWO-2023-00465_W-631	Section 404	PABFx	46.976541	-98.574919	Field Delineation	2.97
W-632	NWO-2023-00465_W-632	Section 404	PEM1A	46.974737	-98.573792	Field Delineation	0.65
W-633	NWO-2023-00465_W-633	Section 404	PEM1A	46.958681	-98.563802	Field Delineation	0.49

Resource ID	USACE PJD Site Number	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)	Cowardin Classification	Latitude (DD-_Y_)	Longitude (DD-_X_)	Delineation Method (Field/Desktop)	Delineated Resource Area (Acres)
W-634	NWO-2023-00465_W-634	Section 404	PEM1A	46.750319	-98.606457	Desktop Delineation	0.07
W-635	NWO-2023-00465_W-635	Section 404	PEM1A	46.242829	-98.591053	Field Delineation	0.32
W-636	NWO-2023-00465_W-636	Section 404	PEM1A	46.24265	-98.577063	Desktop Delineation	0.20
						Total	200.06

Appendix J3:
USACE Jurisdictional Determination Cover Letter

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504-7565

January 17, 2025

NWO-2023-00465-BIS

Otter Tail Power Company
Attn: Mr. Mark Thoma
215 South Cascade Street
Fergus Falls, Minnesota 56538

Dear Mr. Thoma:

This is in reference to your request for a jurisdictional determination (JD) for Otter Tail Power Company (OTP)/Montana-Dakota Utilities Company; Jamestown to Ellendale 345-kV Transmission Line Project (JETx). The project site is located just north of Jamestown and will run northwest of Ellendale, Latitude 47.0287°, Longitude -98.6791°, Stutsman, LaMoure and Dickey Counties, North Dakota.

The enclosed preliminary JD is our written indication that waters in your project area may be jurisdictional WOUS. Such waters will be treated as jurisdictional WOUS for purposes of computation of impacts and compensatory mitigation requirements. If you concur with the findings of the enclosed preliminary JD, please sign it and return it to the letterhead address. If you believe the preliminary JD is inaccurate, you may request this office complete an approved JD prior to your commencement of any work in a WOUS. Completion of an approved JD may require a field delineation and coordination with the U.S. Environmental Protection Agency.

The Omaha District, North Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at https://regulatory.ops.usace.army.mil/customer-service-survey/. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

Printed on Recycled Paper

Please refer to identification number NWO-2023-00465-BIS in any correspondence concerning this project. If you have any questions, please contact Samantha Swanberg by email at samantha.n.swanberg@usace.army.mil, or telephone at 701-255-0015 ext 6398.

Sincerely,

Sam Swanberg
Project Manager

Enclosure

Appendix J4:
Preliminary Jurisdictional Determination

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BACKGROUND INFORMATION

A. **REPORT COMPLETION DATE FOR PJD:** 17-JAN-2025

B. **NAME AND ADDRESS OF PERSON REQUESTING PJD:**
Otter Tail Power Company
Attn: Mark Thoma
215 South Cascade Street
Fergus Falls, MN 56538

Agent: Jennifer Hanley, HDR, Inc.

C. **DISTRICT OFFICE, FILE NAME, AND NUMBER:**
NWO, HDR, Inc.; Otter Tail Power Company (OTP)/Montana-Dakota Utilities Company; Jamestown to Ellendale 345-kV Transmission Line Project (JETx), Stutsman, LaMoure, and Dickey Counties, NWO-2023-00465-BIS

D. PROJECT LOCATION AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: ND County/Parish/Borough: Dickey County City: Ellendale
Center coordinates of site (lat/long in degree decimal format):
Lat.: 46.518334° Long.: -98.608132°
Universal Transverse Mercator: 14
Name of nearest waterbody: James River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: Aquatic Resource Delineation Report Jamestown to Ellendale (JetX) Transmission Line December 2024 with updated excel spreadsheet on January 2, 2025.
☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
NWO-2023-00465_A-W-023	47.01149	-98.613836	0.002 acres	Wetland	Section 404
NWO-2023-00465_A-W-184	46.870449	-98.574851	1.08 acres	Wetland	Section 404
NWO-2023-00465_A-W-186	46.869616	-98.580909	0.32 acres	Wetland	Section 404
NWO-2023-00465_A-W-187	46.87065	-98.580694	0.01 acres	Non-wetland waters	Section 10/404
NWO-2023-00465_FD-ab-044	46.901767	-98.564791	0.69 acres	Wetland	Section 404
NWO-2023-	46.903535	-98.564927	0.92 acres	Wetland	Section 404

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00465_FD-ab-045					
NWO-2023-00465_FD-ab-046	46.72925	-98.606913	0.52 acres	Wetland	Section 404
NWO-2023-00465_FD-ab-048	46.894017	-98.56491	0.27 acres	Wetland	Section 404
NWO-2023-00465_FD-TL-001	46.580503	-98.61177	0.06 acres	Wetland	Section 404
NWO-2023-00465_Fed-ab-042	46.860914	-98.581145	0.21 acres	Wetland	Section 404
NWO-2023-00465_OW-55	46.717491	-98.622664	0.33 acres	Non-wetland waters	Section 404
NWO-2023-00465_W-212	46.649734	-98.649031	0.75 acres	Wetland	Section 404
NWO-2023-00465_W-225	46.630063	-98.637822	0.13 acres	Wetland	Section 404
NWO-2023-00465_W-356	46.36576	-98.609791	0.17 acres	Wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD or no JD whatsoever, which do not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the USACE has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD or reliance on no JD whatsoever; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of USACE permit authorization based on a PJD or no JD whatsoever constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the USACE will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "*may be*" waters of the U.S. and/or that there "*may be*" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in

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the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (*check all that apply*)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

_x__ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Map: ______________________________.
_x__ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  _x__ Office concurs with data sheets/delineation report.
  ___ Office does not concur with data sheets/delineation report. Rationale: _____________________.
___ Data sheets prepared by the Corps: ______________________________.
___ Corps navigable waters' study: ______________________________.
___ U.S. Geological Survey Hydrologic Atlas: ______________________________.
  ___ USGS NHD data.
  ___ USGS 8 and 12 digit HUC maps.
_x__ U.S. Geological Survey map(s). Cite scale & quad name: ______________________________.
_x__ USDA Natural Resources Conservation Service Soil Survey. Citation: _Hydric Soils _______________________.
_x__ National wetlands inventory map(s). Cite name: ______________________________.
___ State/Local Wetland Inventory map(s): ______________________________.
___ FEMA/FIRM maps: ______________________________
___ 100-year Floodplain Elevation is: ________________. (National Geodetic Vertical Datum of 1929)
  ___ Photographs: ___ Aerial (*Name & Date*): ______________________________.
  ___ or ___ Other (*Name & Date*): ______________________________.
___ Previous determination(s). File no. and date of response letter: ___________________________.
_x__ Other information (*please specify*): _National Landcover Dataset (NLCD)__________.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the USACE and should not be relied upon for later jurisdictional determinations.

Samantha Swanberg	_________________________________
Signature of Regulatory Staff Member Completing PJD	Signature of Person Requesting PJD (*REQUIRED, unless obtaining the signature is impracticable*)[1]

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