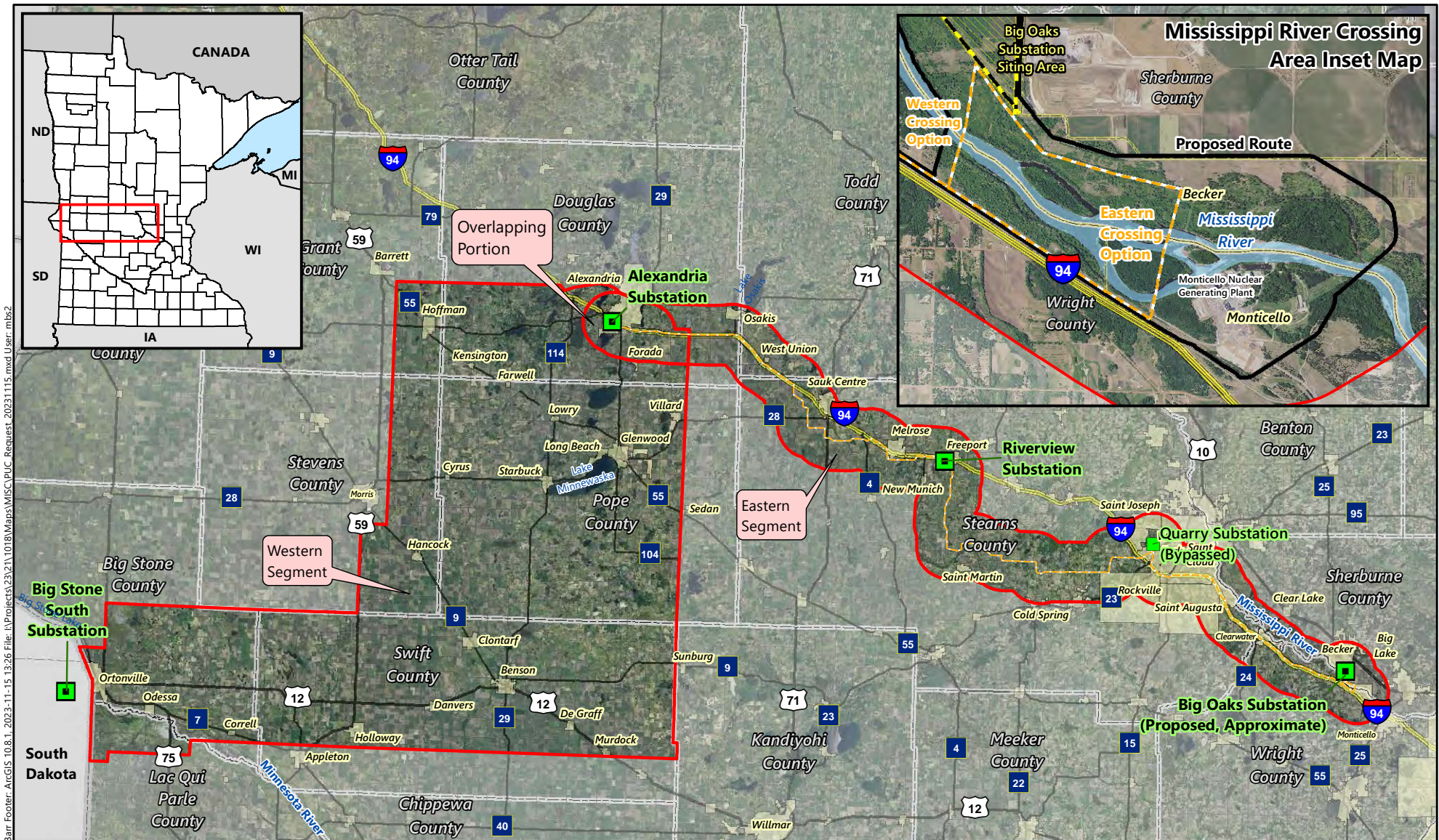


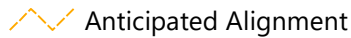


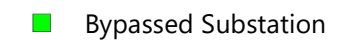



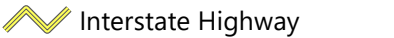



APPENDIX B:

Maps

Map 1: Project Overview

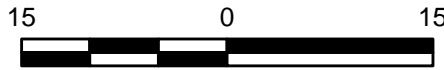


Bar Footer: ArcGIS 10.8.1, 2023-11-15 13:26 File: I:\Projects\23\21\1018\Maps\MISC\pUC_Requset_20231115.mxd User: mbs2

-  Anticipated Alignment
-  Project Study Area
-  Project Substation
-  Bypassed Substation
-  Municipal Boundary
-  County Boundary
-  State Boundary
-  Interstate Highway
-  US Highway
-  State Highway
-  County State-Aid Highway

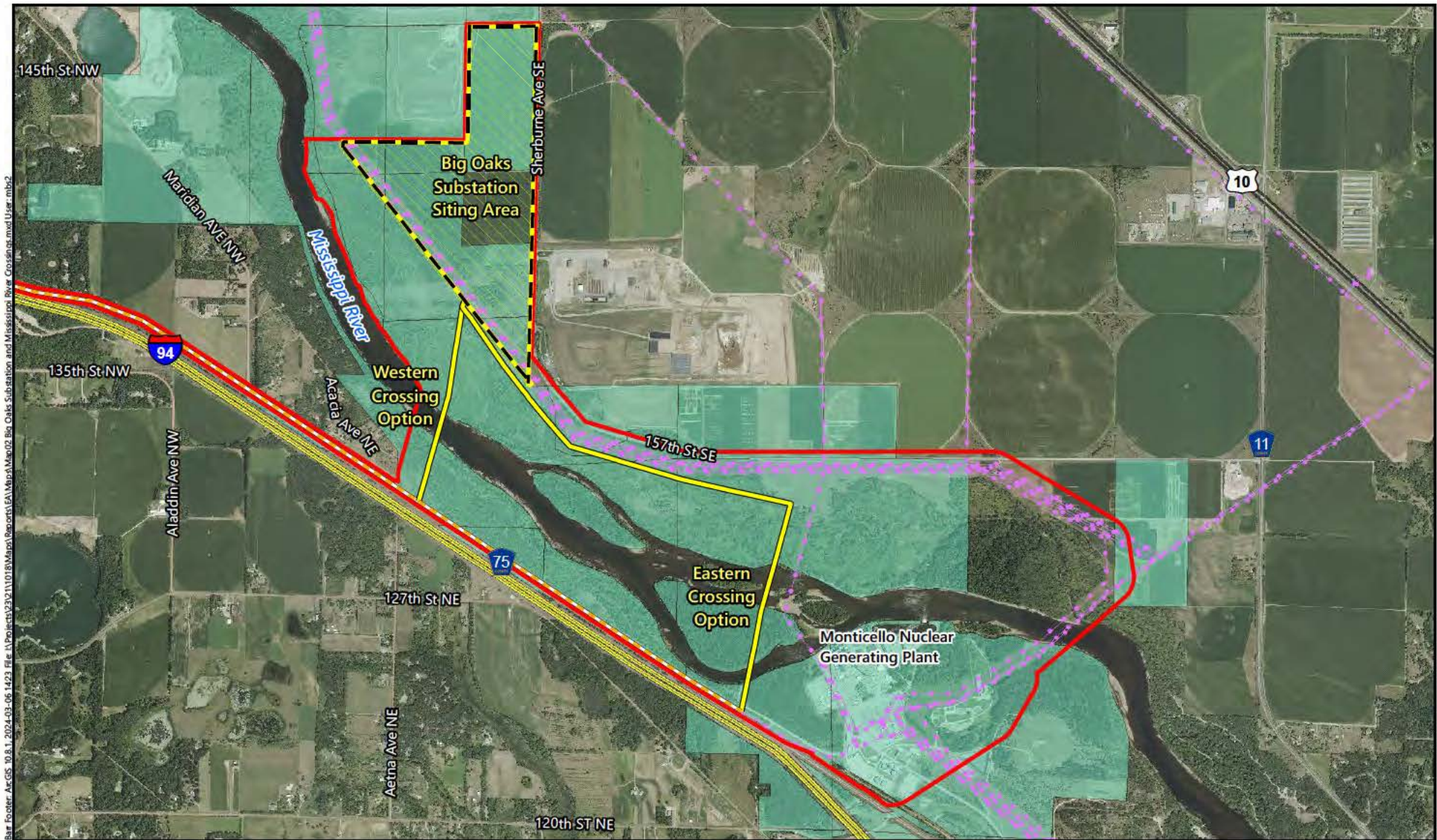


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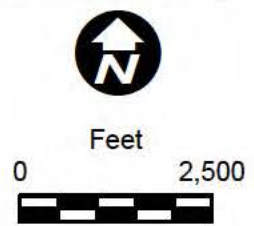
PROJECT OVERVIEW MAP
 BIG STONE SOUTH TO ALEXANDRIA
 AND ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Certificate of Need Application

Map 2A:
River Crossings Overview (Western and
Eastern Options)



Bar Foster-AeGIS 10.8.1.2024-03-06 14:23 File: \\Projects\23211018\Map\Reports\EA\Map\Map02_Big Oaks Substation and Mississippi River Crossings.mxd User: mb02

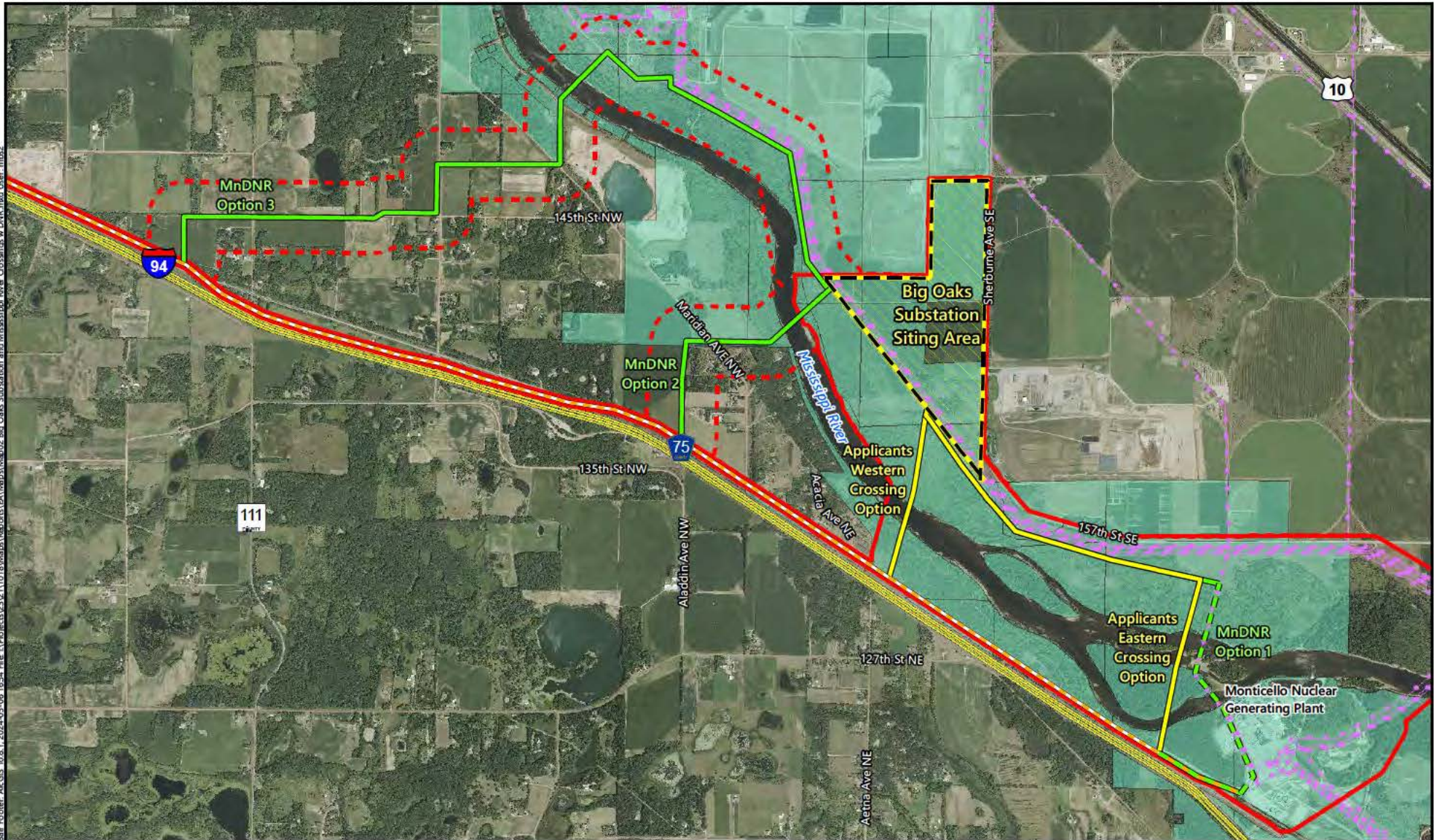
-  Proposed Route
-  Anticipated Alignment (Existing)
-  Anticipated Alignment (New Build)
-  Existing High-Voltage Transmission Line
-  Utility-Owned Parcel



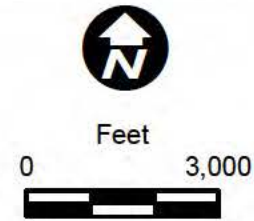
**BIG OAKS SUBSTATION AND
 MISSISSIPPI RIVER CROSSINGS**
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment

Map 2B:
River Crossings Overview (with DNR
Alternatives)

Bar Foster-ArcGIS 10.8.1_2024-05-06 16:54 File: \\Projects\2302110218\Map\Reports\EA\Map\Map02_Big Oaks Substation and Mississippi River Crossing w DNR.mxd User: mbs2

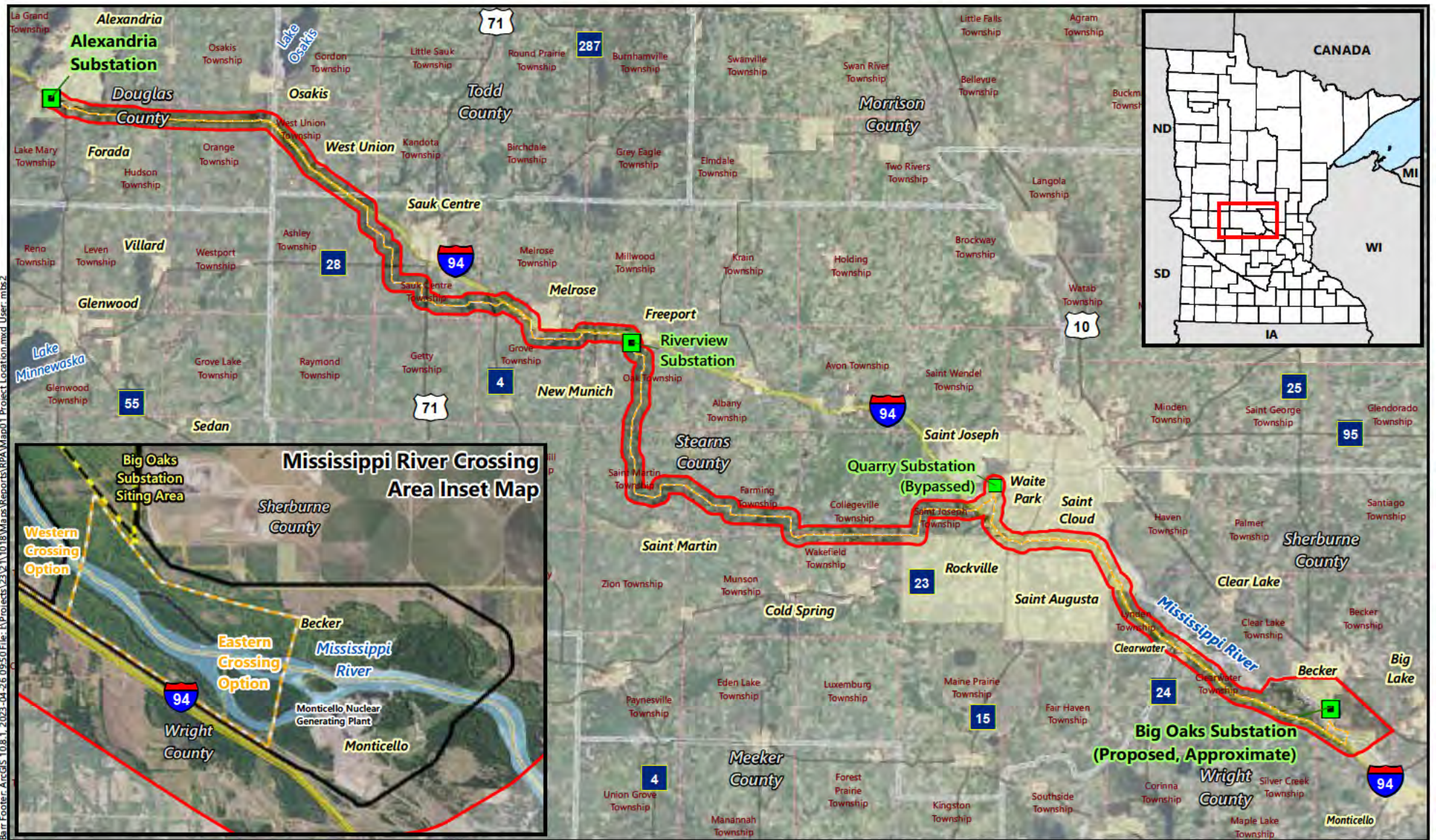


- Application Alignment (Existing)
- Proposed Mississippi Crossing Option (New Build)
- MnDNR Mississippi Crossing Option (Rebuild/Expand)
- MnDNR Mississippi Crossing Option (Existing)
- MnDNR Mississippi Crossing Option (New Build)
- Proposed Route
- MnDNR Option Route
- Existing High-Voltage Transmission Line
- Utility-Owned Parcel















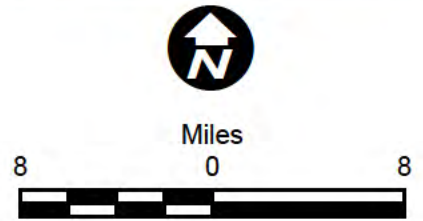
BIG OAKS SUBSTATION AND MISSISSIPPI RIVER CROSSINGS
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment

Map 3: East Segment Overview



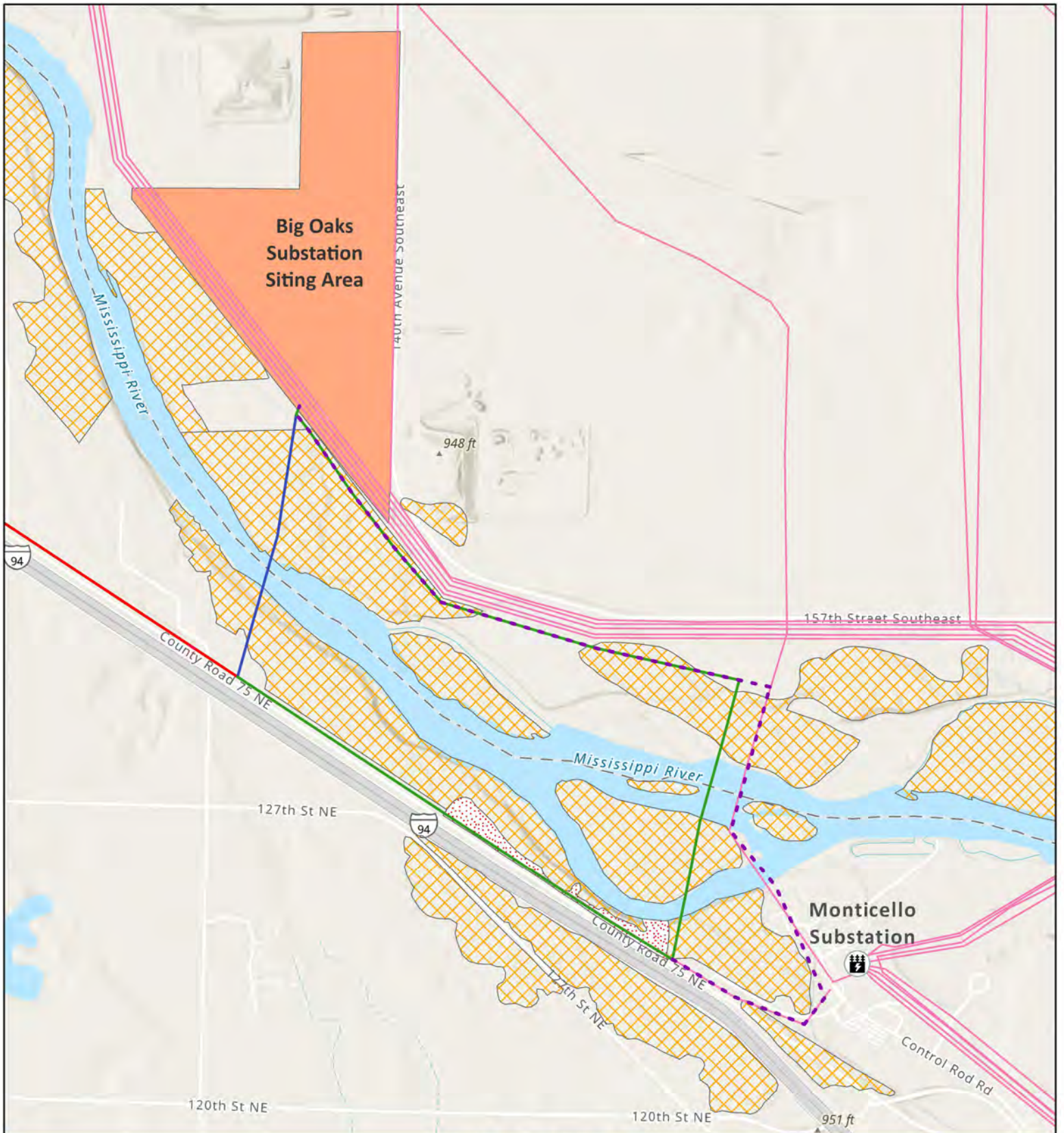
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-  Project Study Area
-  Anticipated Alignment
-  Project Substation
-  Bypassed Substation
-  Interstate Highway
-  US Highway
-  State Highway
-  County State-Aid Highway
-  Municipal Boundary
-  Civil Township
-  County Boundary
-  State Boundary

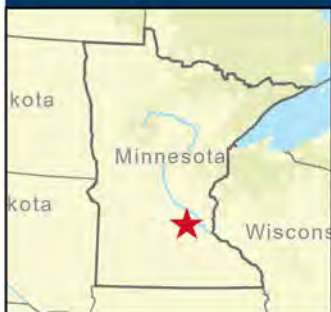


PROJECT LOCATION
ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Route Permit Application

Maps 4A- 4C:
DNR Alternatives 1-3



DNR Alternative 1



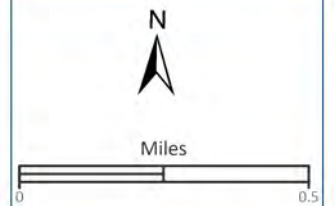
- Existing Substations
- Big Oaks Substation Siting Area
- Existing Lines
- Native Prairies
- MBS Sites of Biodiversity Significance

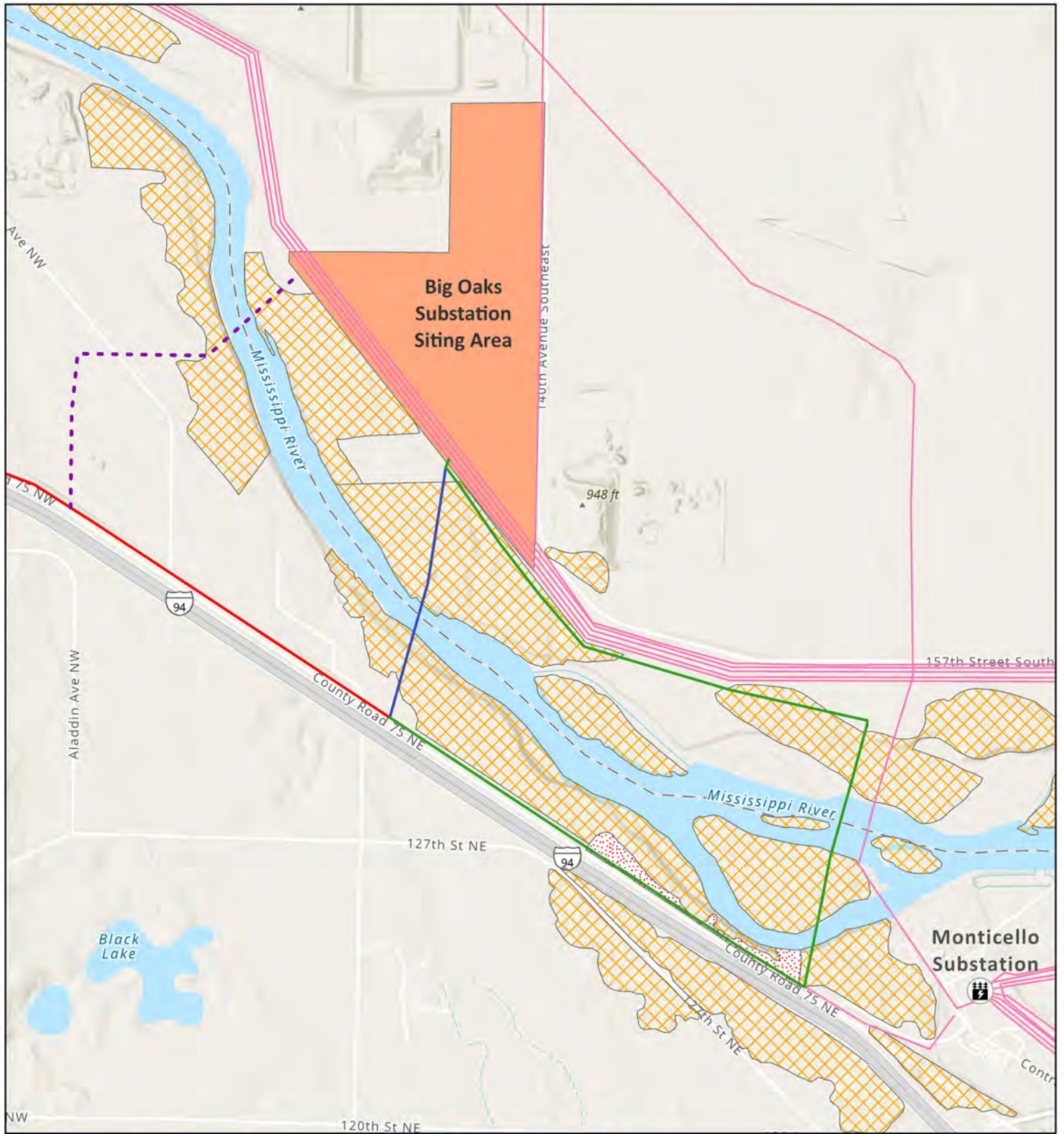
DNR Alternatives

- Option 1
- Option 2
- Option 3

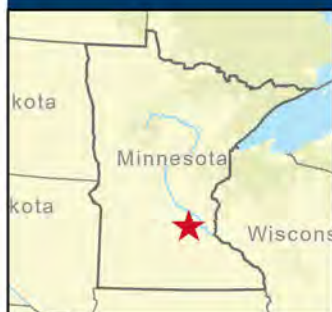
Proposed Transmission Line Alignments

- Western Crossing Option
- Eastern Crossing Option
- Project Transmission Line





DNR Alternative 2



- Existing Substations
- Big Oaks Substation Siting Area
- Existing Lines
- Native Prairies
- MBS Sites of Biodiversity Significance

- DNR Alternatives**
- Option 1
 - Option 2
 - Option 3

- Proposed Transmission Line Alignments**
- Western Crossing Option
 - Eastern Crossing Option
 - Project Transmission Line

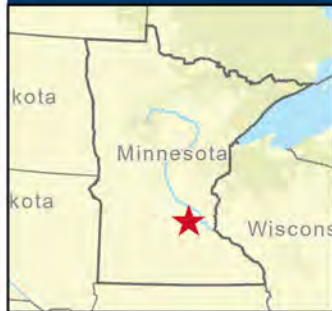
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mi COMMERCE DEPARTMENT



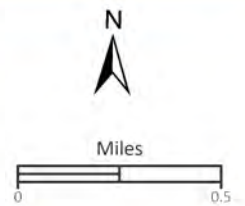
DNR Alternative 3



- Existing Substations
- Big Oaks Substation Siting Area
- Existing Lines
- Native Prairies
- MBS Sites of Biodiversity Significance







- DNR Alternatives**
- Option 1
 - Option 2
 - Option 3

- Proposed Transmission Line Alignments**
- Western Crossing Option
 - Eastern Crossing Option
 - Project Transmission Line



Map 5A:
Alexandria Substation Detail



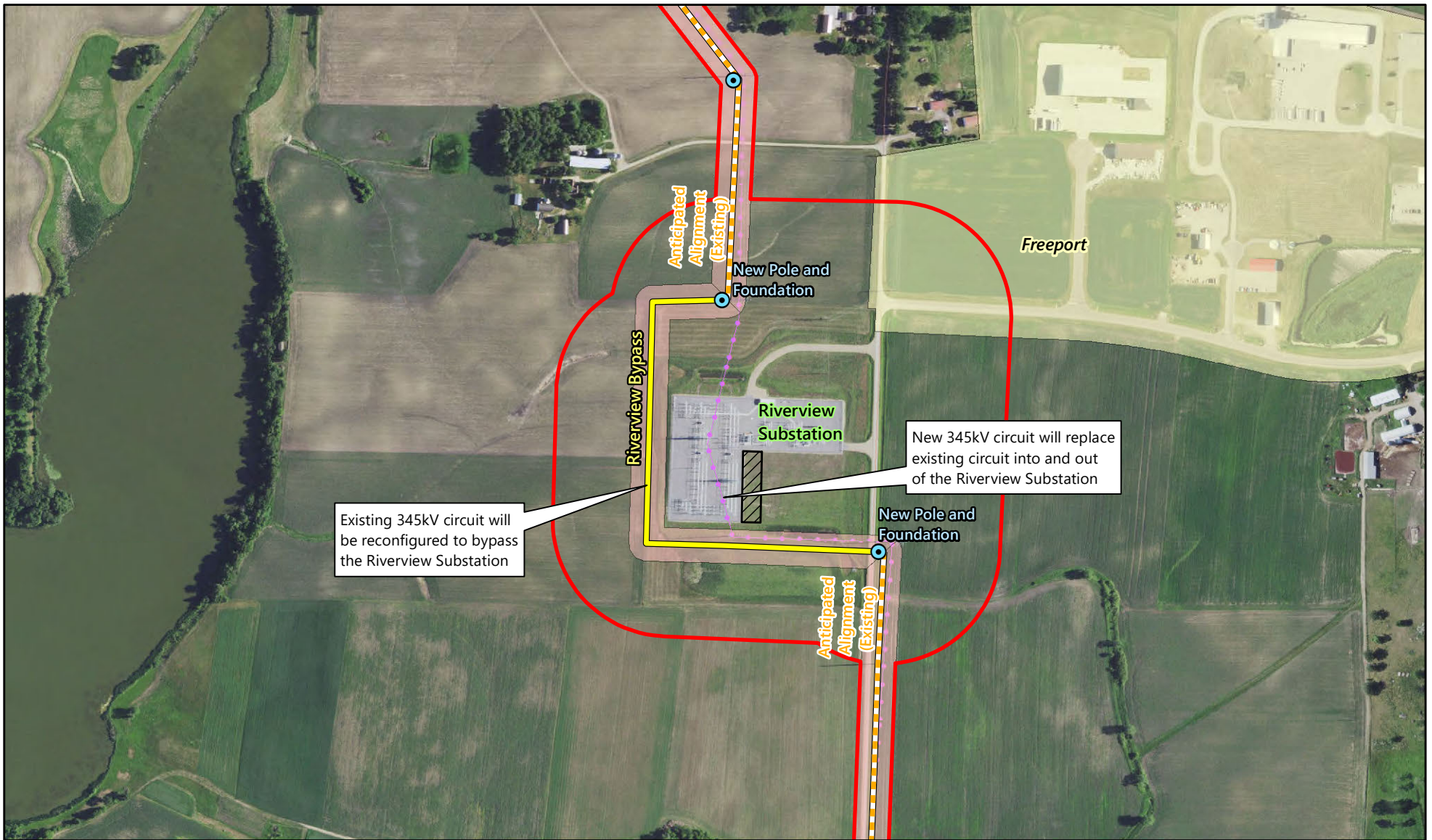
-  Anticipated Alignment (Existing)
-  Anticipated Alignment (New Build)
-  Existing High-Voltage Transmission Line
-  Preliminary Substation Footprint Expansion
-  Proposed Right-of-Way
-  Proposed Route










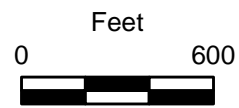
Map 5A

ALEXANDRIA SUBSTATION
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment

Map 5B:
Riverview Substation Bypass Detail



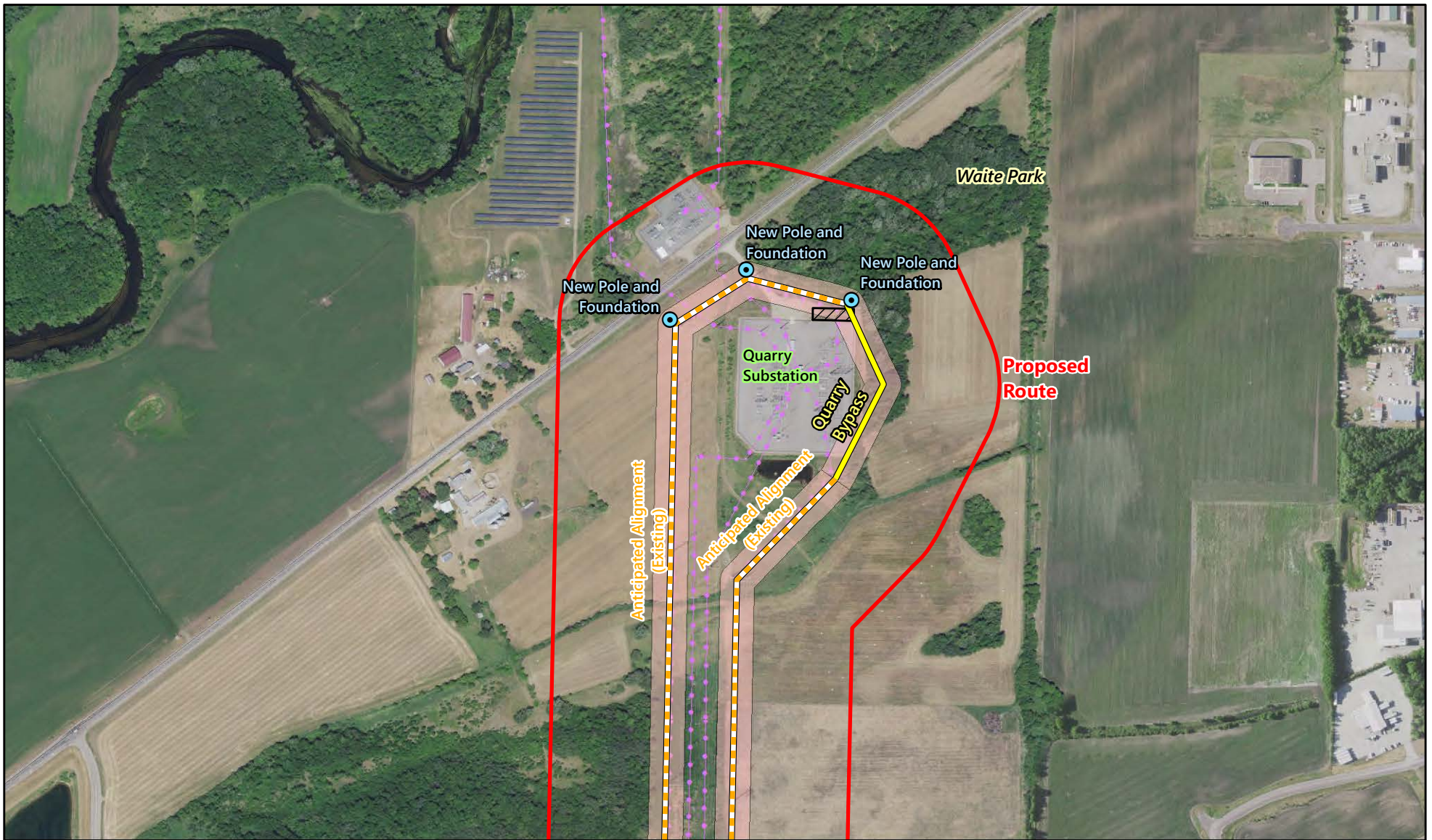
-  Proposed New Pole
-  Proposed Right-of-Way
-  Anticipated Alignment (Existing)
-  Proposed Route
-  Anticipated Alignment (New Build)
-  Existing High-Voltage Transmission Line
-  Preliminary Substation Footprint Expansion










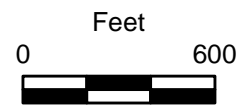
Map 5B

RIVERVIEW SUBSTATION
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment

Map 5C:
Quarry Substation Bypass Detail



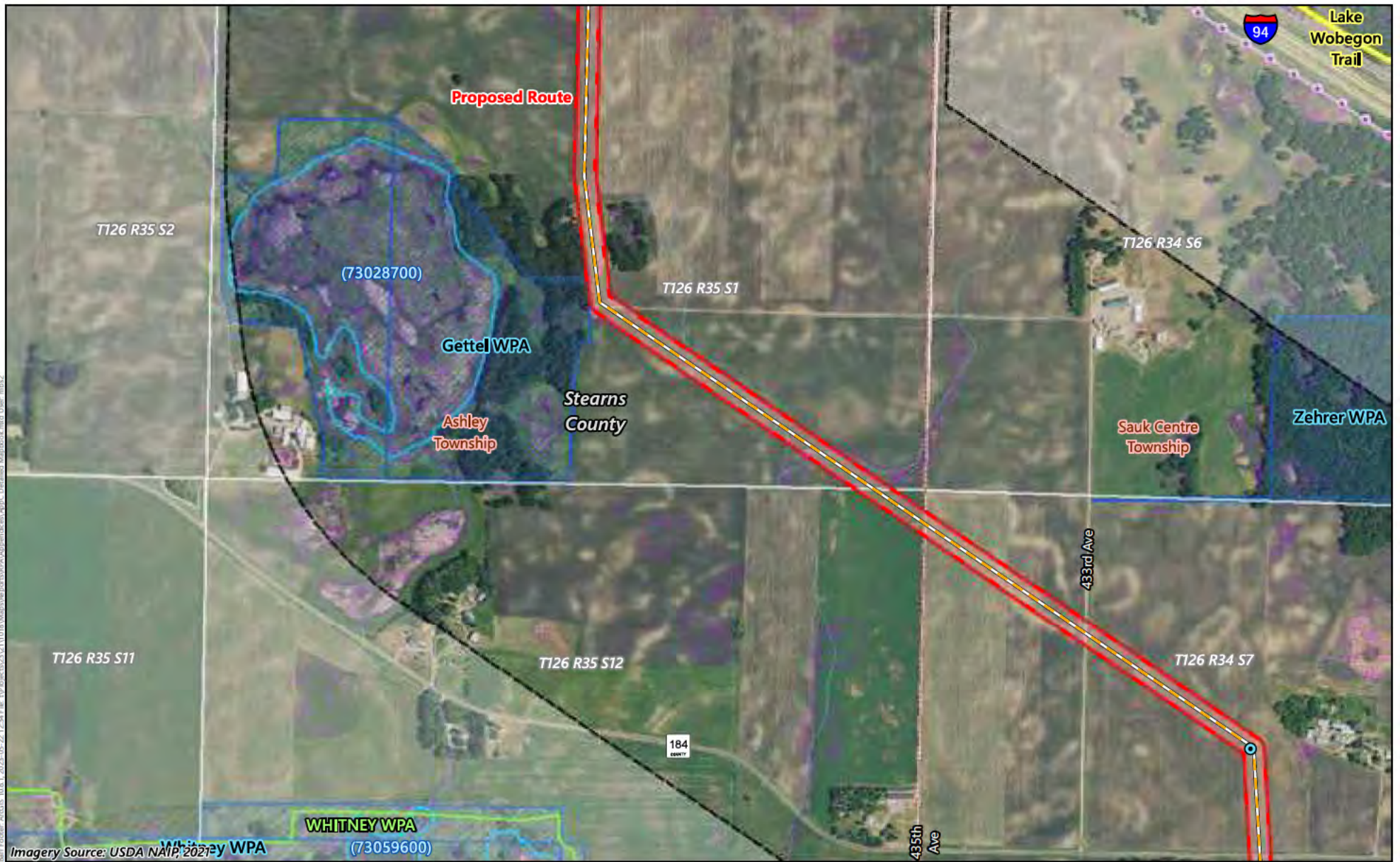
-  Proposed New Pole
-  Proposed Right-of-Way
-  Anticipated Alignment (Existing)
-  Proposed Route
-  Anticipated Alignment (New Build)
-  Existing High-Voltage Transmission Line
-  Preliminary Substation Footprint Expansion



Map 5C

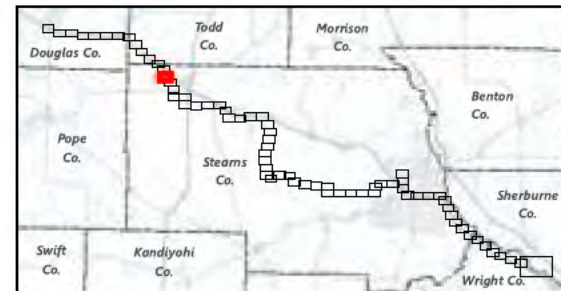
QUARRY SUBSTATION
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment

Map 6A-6EE:
New Foundation and Pole Locations

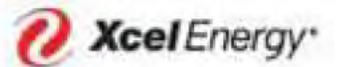
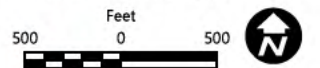


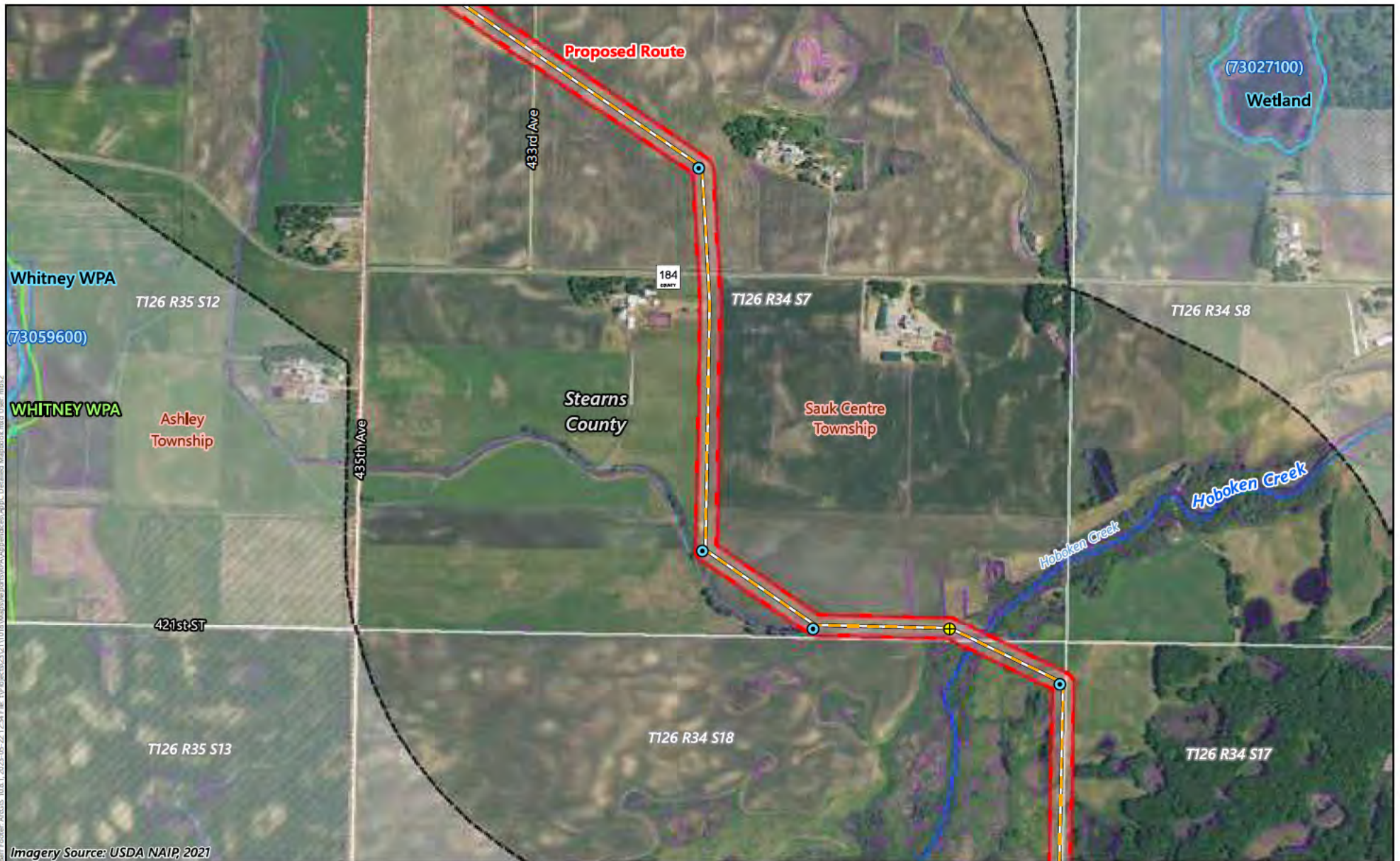
Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- County/Municipal Park
- National Wetland Inventory
- Public Water Basin/Wetland
- Site of Biodiversity Significance
- Waterfowl Production Area

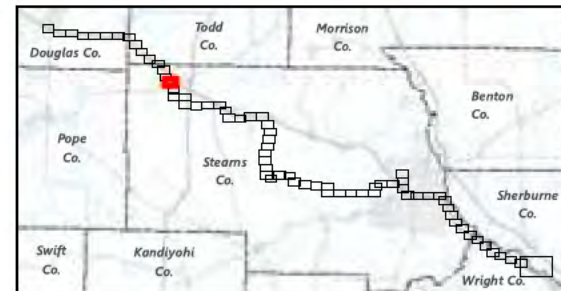


**ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application**

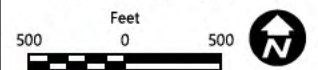














-  New Foundation and Pole
-  New Pole Only
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  Public Water Watercourse
-  Site of Biodiversity Significance
-  Waterfowl Production Area

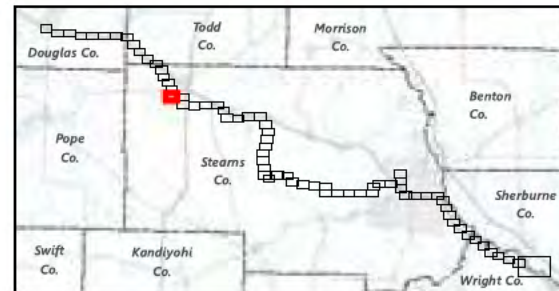


ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

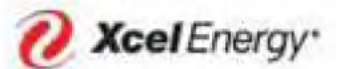
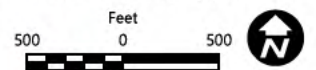


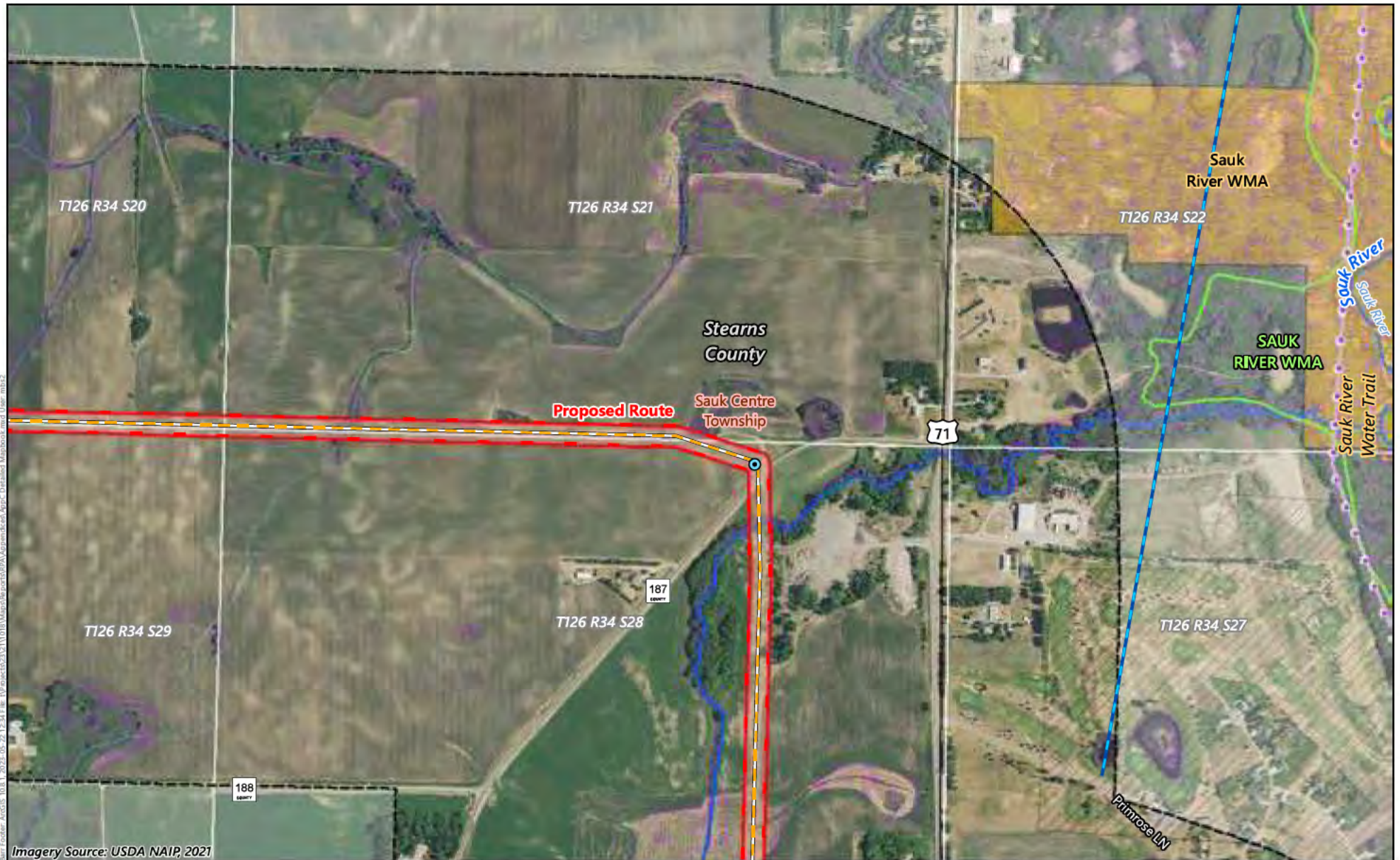


-  New Foundation and Pole
-  New Pole Only
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Watercourse



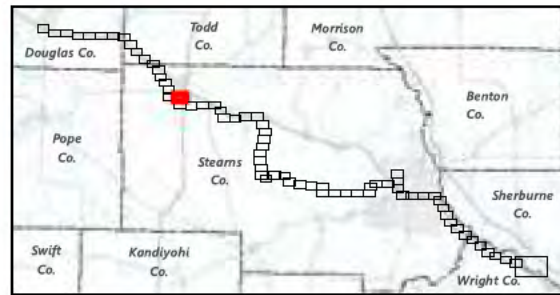
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application






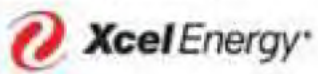
Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Approx. Natural Gas Pipeline
-  Project Study Area
-  Civil Township
-  Wildlife Management Area
-  National Wetland Inventory
-  State Water Trail
-  Public Water Watercourse
-  Site of Biodiversity Significance
















ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

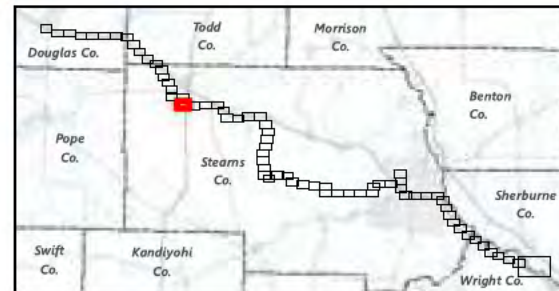
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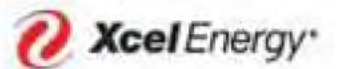
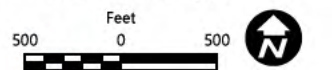


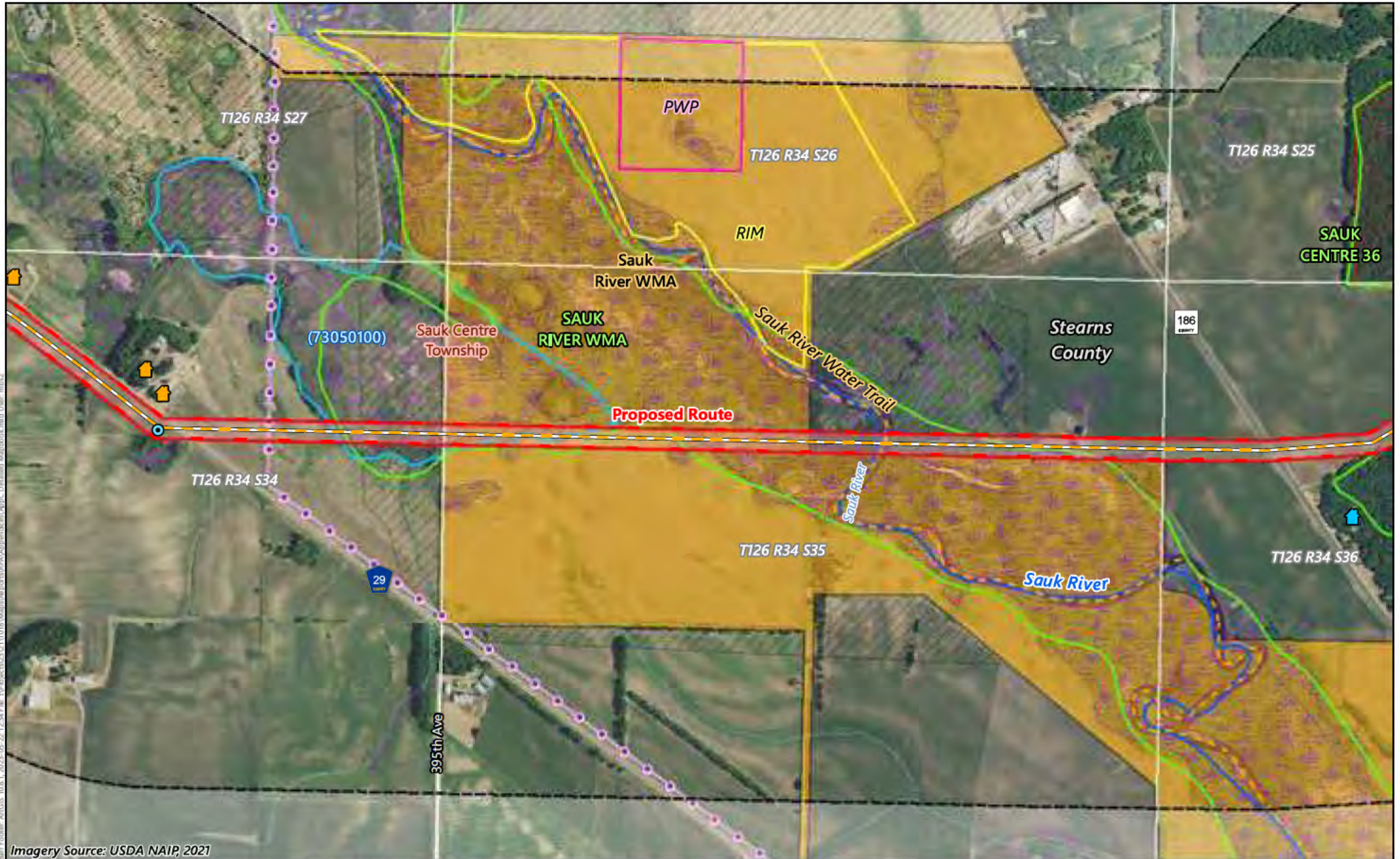
Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  Public Water Watercourse
-  Site of Biodiversity Significance
-  Residence 75-300 Feet from Alignment



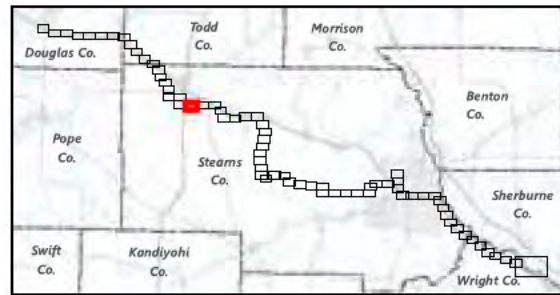
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
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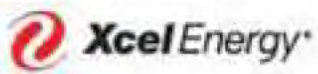
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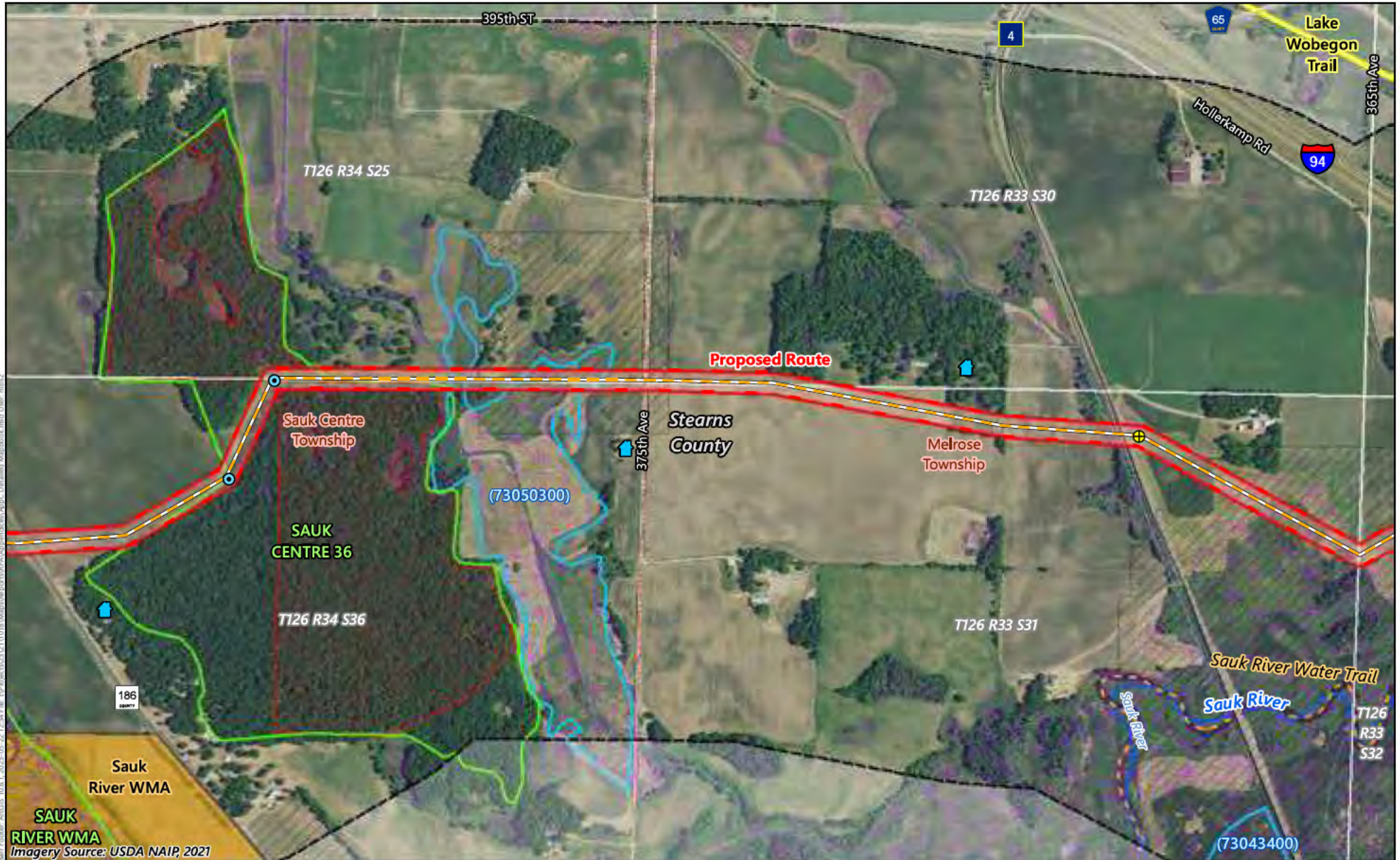
- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- Wildlife Management Area
- Conservation Easement
- Permanent Wetland Preserve
- Reinvest in Minnesota
- Native Plant Community
- National Wetland Inventory
- Public Water Basin/Wetland
- State Water Trail
- Public Water Watercourse
- Site of Biodiversity Significance
- Residence 75-300 Feet from Alignment
- Residence 300-500 Feet from Alignment



ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

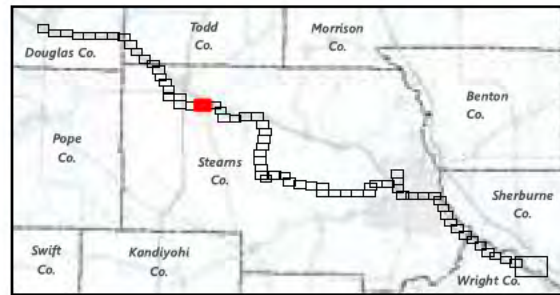
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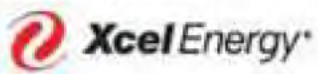
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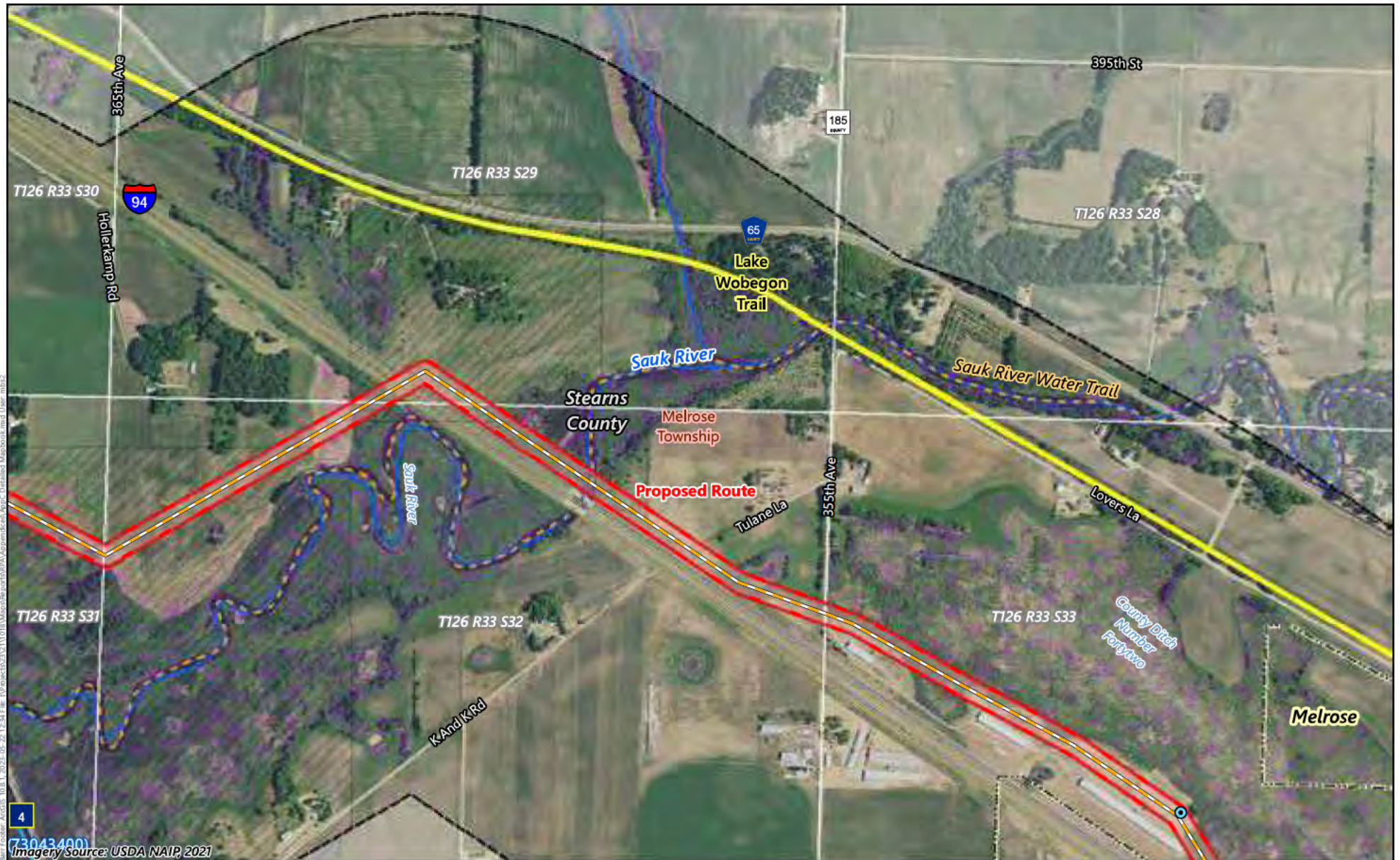
- New Foundation and Pole
- New Pole Only
- Anticipated Alignment (Existing)
- Proposed Route
- 150-Foot Right-of-Way
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- County/Municipal Park
- Wildlife Management Area
- Native Plant Community
- National Wetland Inventory
- Public Water Basin/Wetland
- State Water Trail
- Public Water Watercourse
- Site of Biodiversity Significance
- Residence 300-500 Feet from Alignment



ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

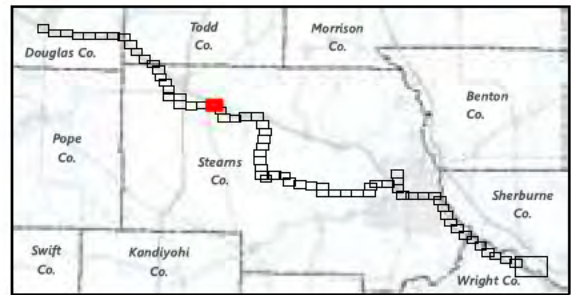
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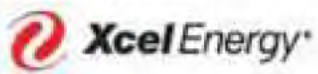
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 Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Municipal Boundary
- Civil Township
- County/Municipal Park
- National Wetland Inventory
- Public Water Basin/Wetland
- State Water Trail
- Public Water Watercourse
















ALEXANDRIA TO BIG OAKS
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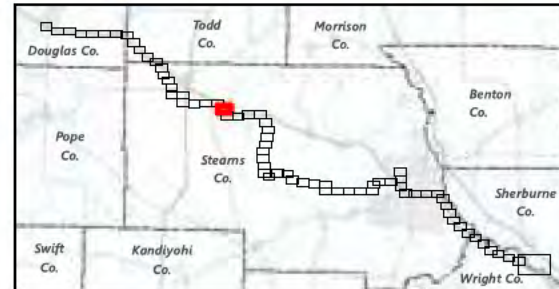
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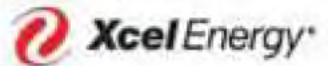
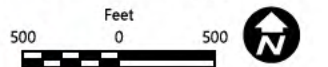


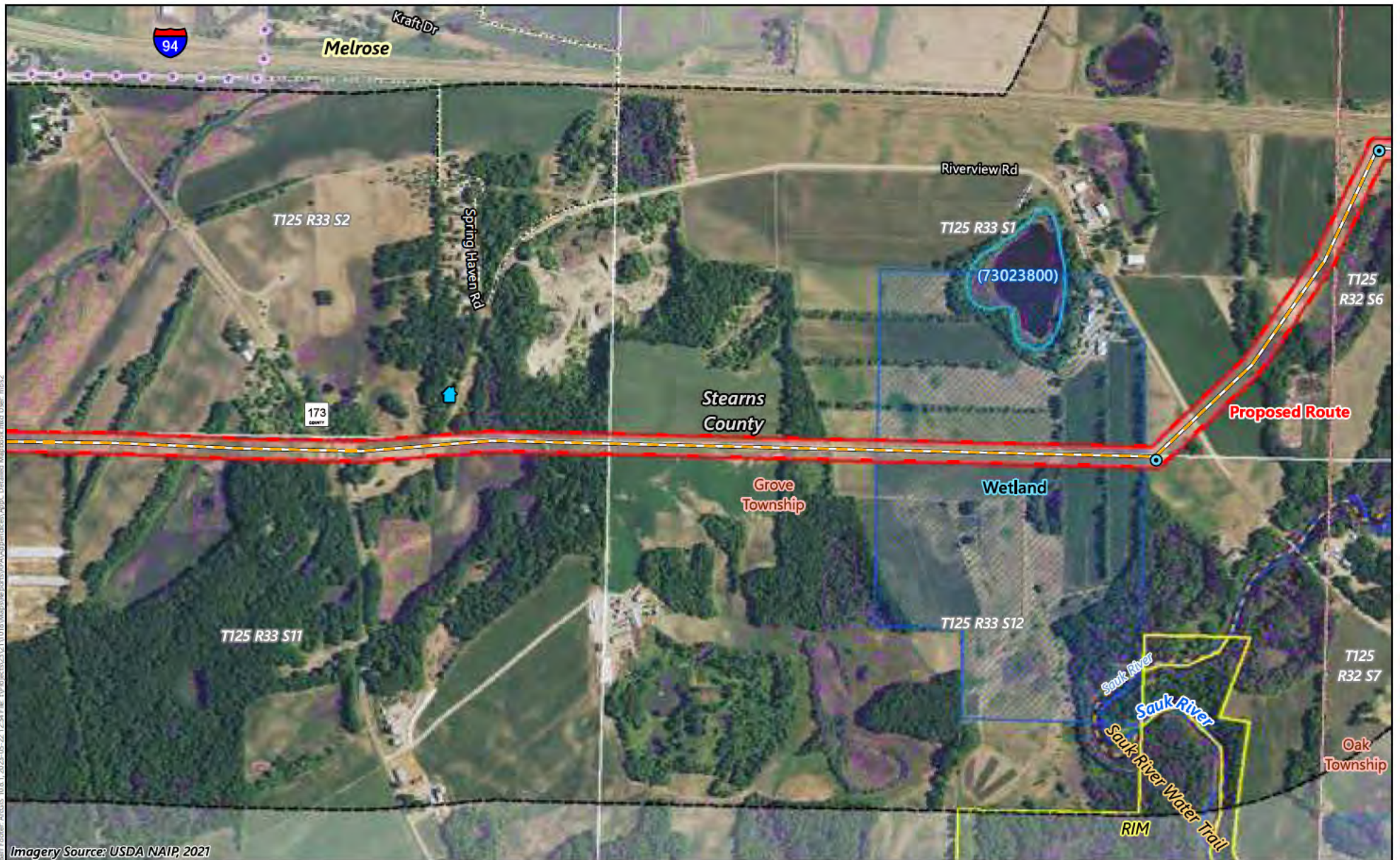
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-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Municipal Boundary
-  Civil Township
-  County/Municipal Park
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  State Water Trail
-  Public Water Watercourse



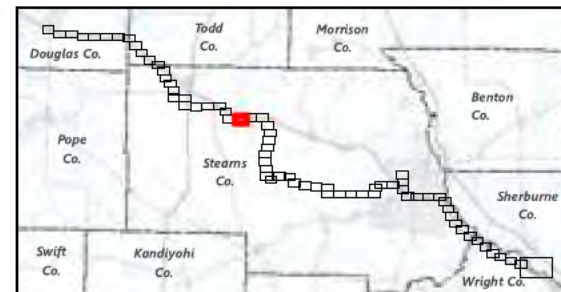
ALLXANDRIA TO BIG OAKS
MISO LRTP-2
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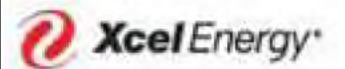
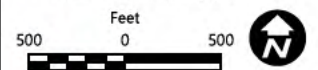


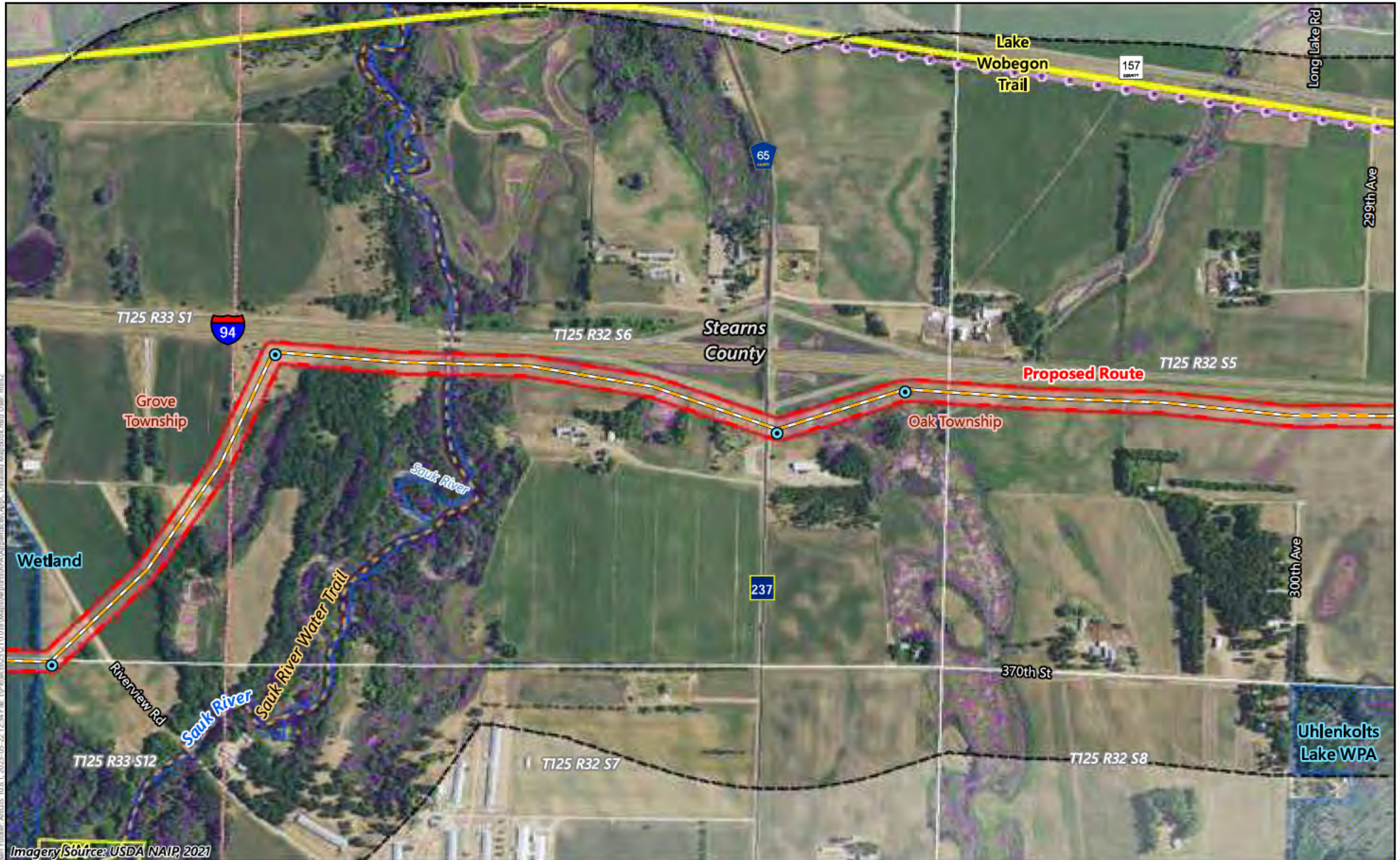
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- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Existing High-Voltage Transmission Line
- Project Study Area
- Municipal Boundary
- Civil Township
- Conservation Easement
- Reinvest in Minnesota
- National Wetland Inventory
- Public Water Basin/Wetland
- State Water Trail
- Public Water Watercourse
- Waterfowl Production Area
- Residence 300-500 Feet from Alignment



ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

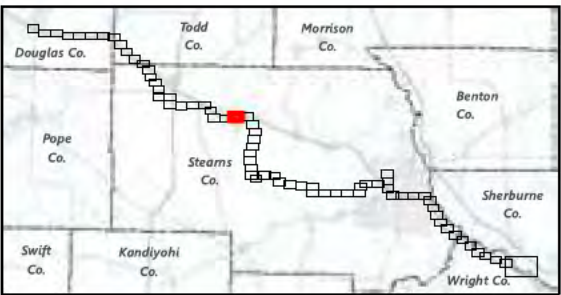




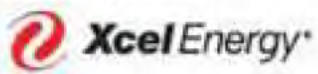
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Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- County/Municipal Park
- Conservation Easement
- Reinvest in Minnesota
- National Wetland Inventory
- State Water Trail
- Public Water Watercourse
- Waterfowl Production Area



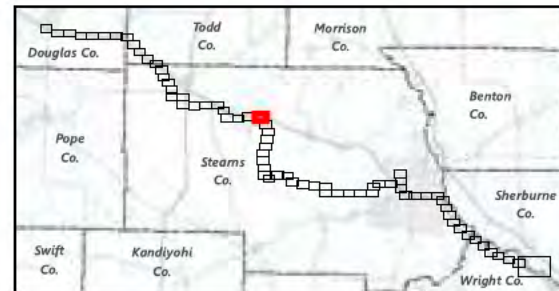
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application
 Feet
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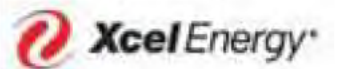
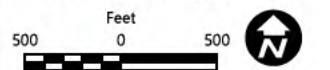


Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- Anticipated Alignment (New Build)
- 150-Foot Right-of-Way
- Preliminary Substation Footprint Expansion
- Proposed Route
- Grassland Bird Conservation Area
- Existing High-Voltage Transmission Line
- Approx. Natural Gas Pipeline
- Project Study Area
- Municipal Boundary
- Civil Township
- County/Municipal Park
- National Wetland Inventory
- Public Water Basin/Wetland
- Waterfowl Production Area

















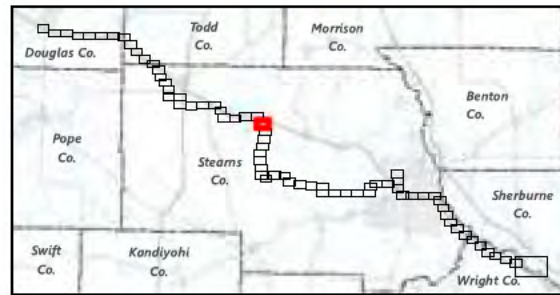
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



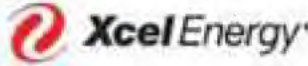
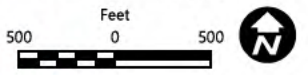


Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  Anticipated Alignment (New Build)
-  150-Foot Right-of-Way
-  Preliminary Substation Footprint Expansion
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Approx. Natural Gas Pipeline
-  Project Study Area
-  Municipal Boundary
-  Civil Township
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  Public Water Watercourse















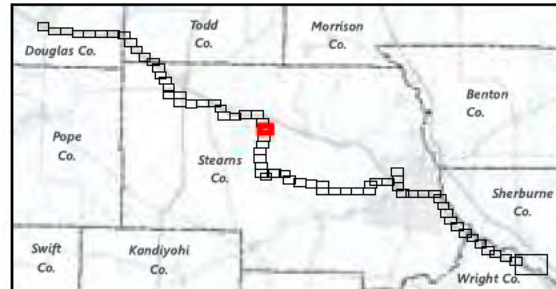
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



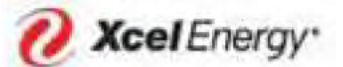
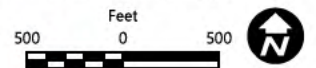


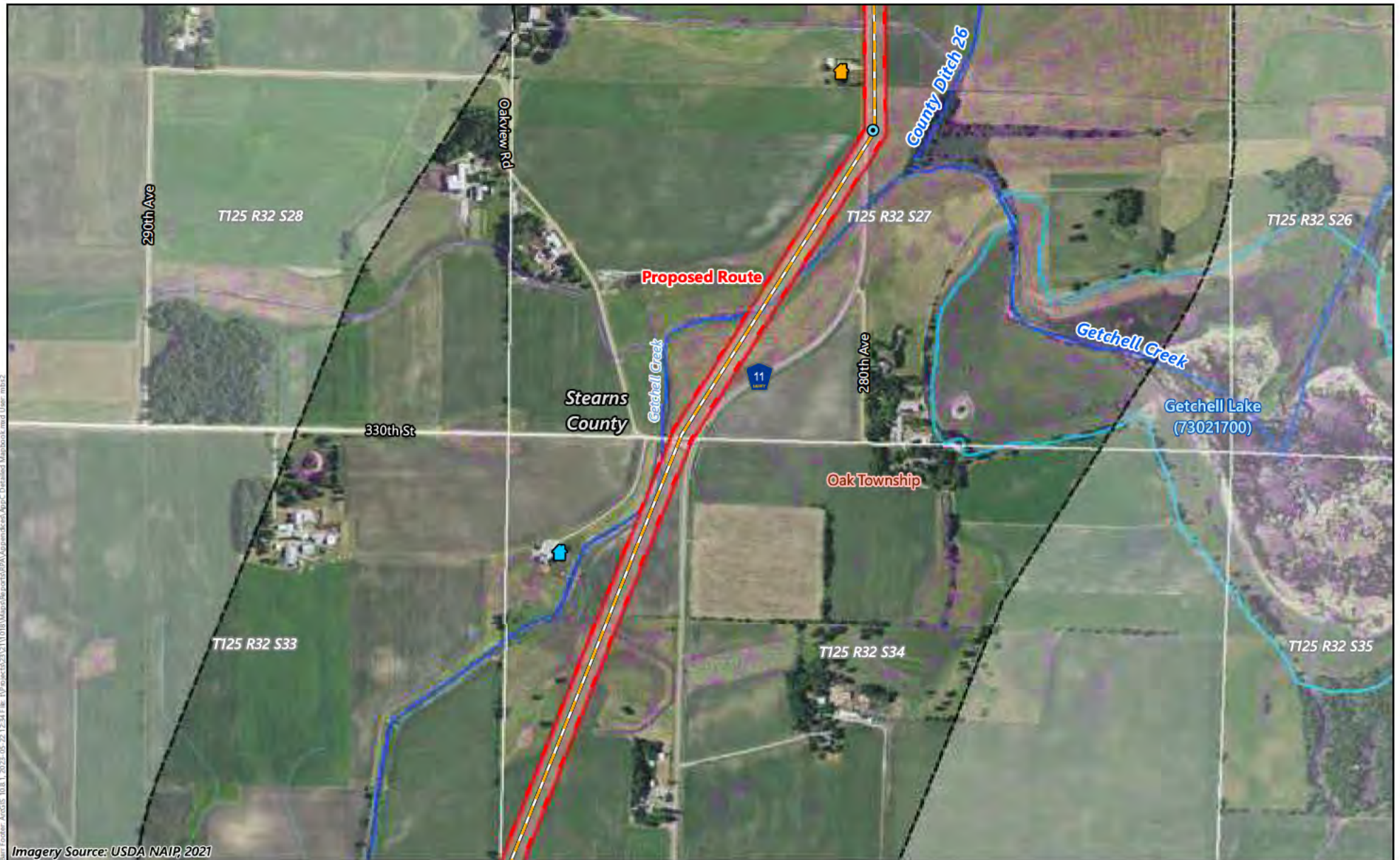
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-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Approx. Natural Gas Pipeline
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  Public Water Watercourse
-  Residence 300-500 Feet from Alignment















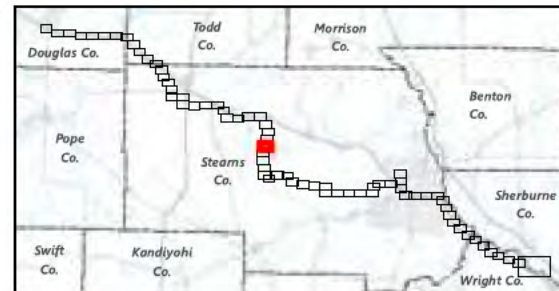
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



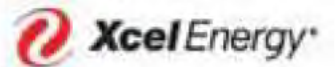
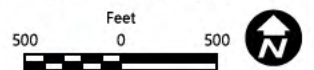


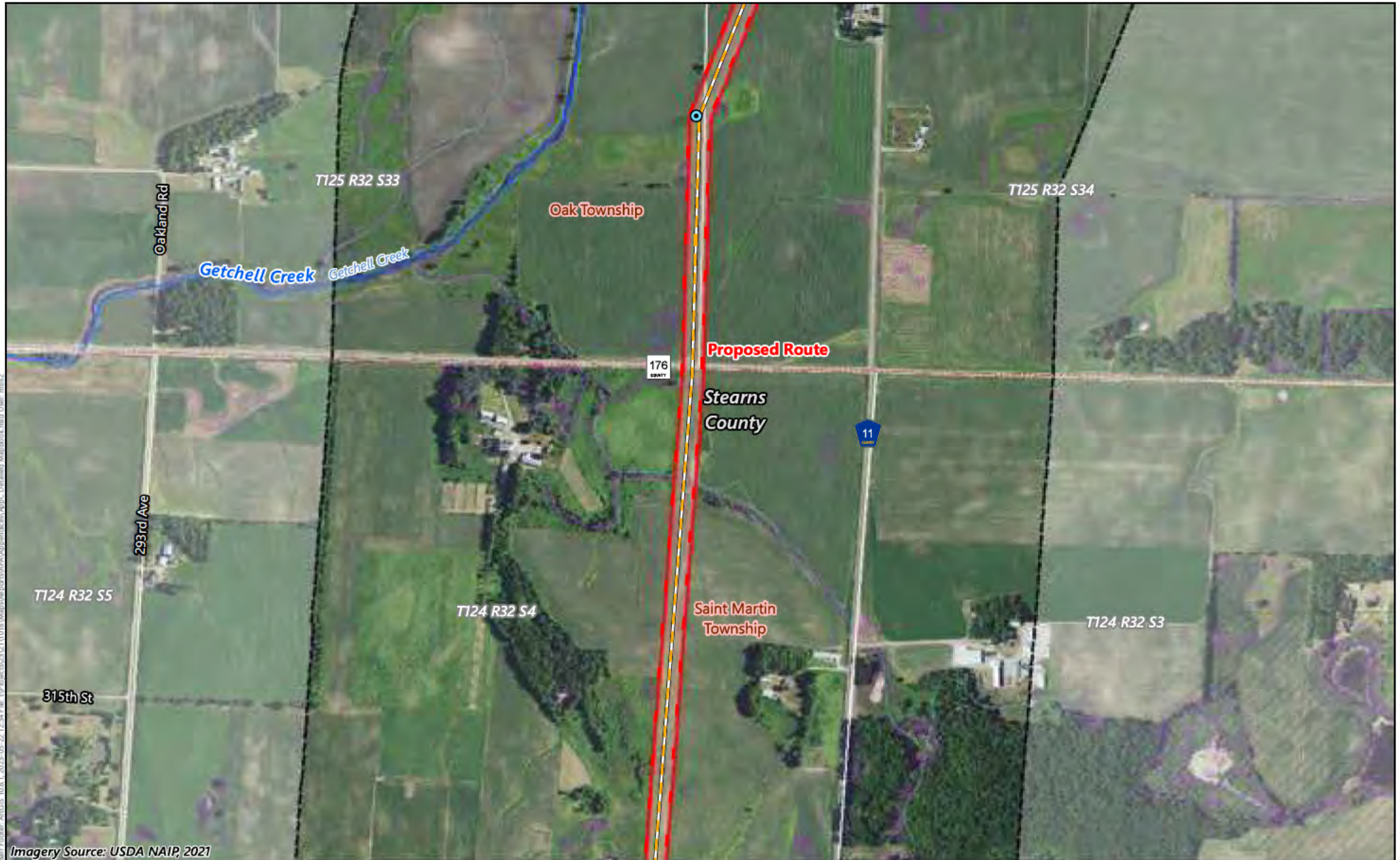
Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Basin/Wetland
-  Public Water Watercourse
-  Residence 75-300 Feet from Alignment
-  Residence 300-500 Feet from Alignment













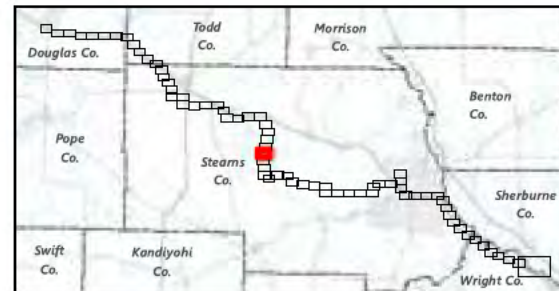
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



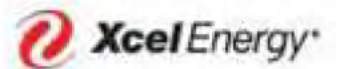
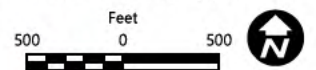


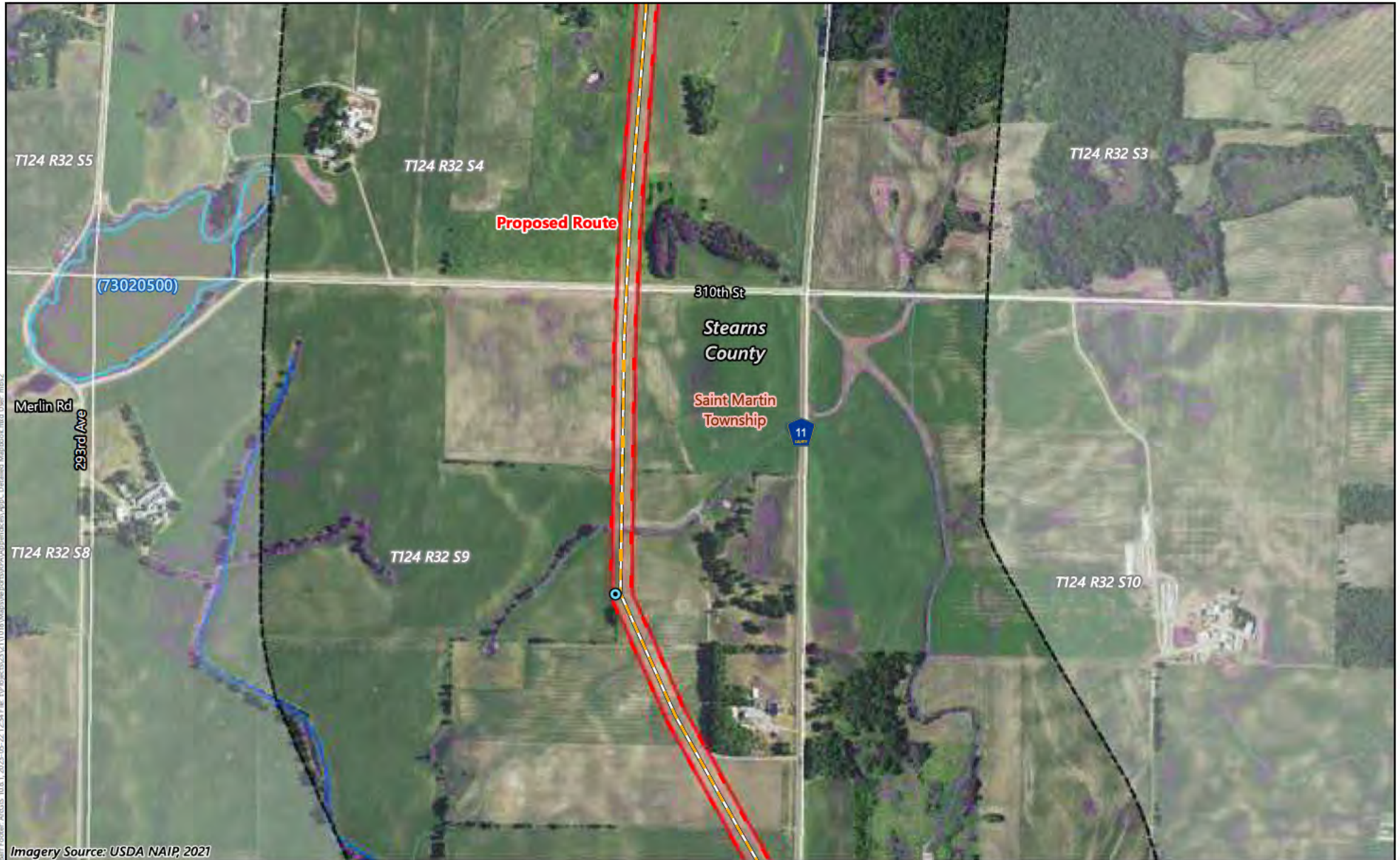
Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
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-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Watercourse














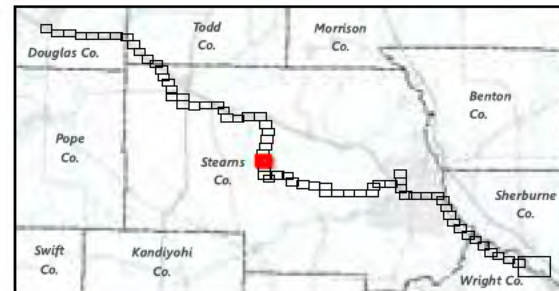
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



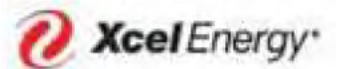
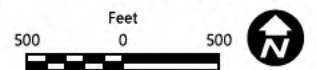


Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
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-  Existing High-Voltage Transmission Line
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-  National Wetland Inventory
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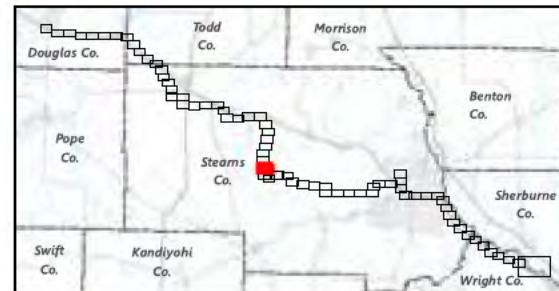
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



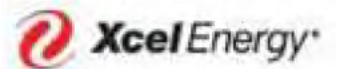
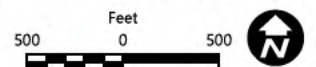


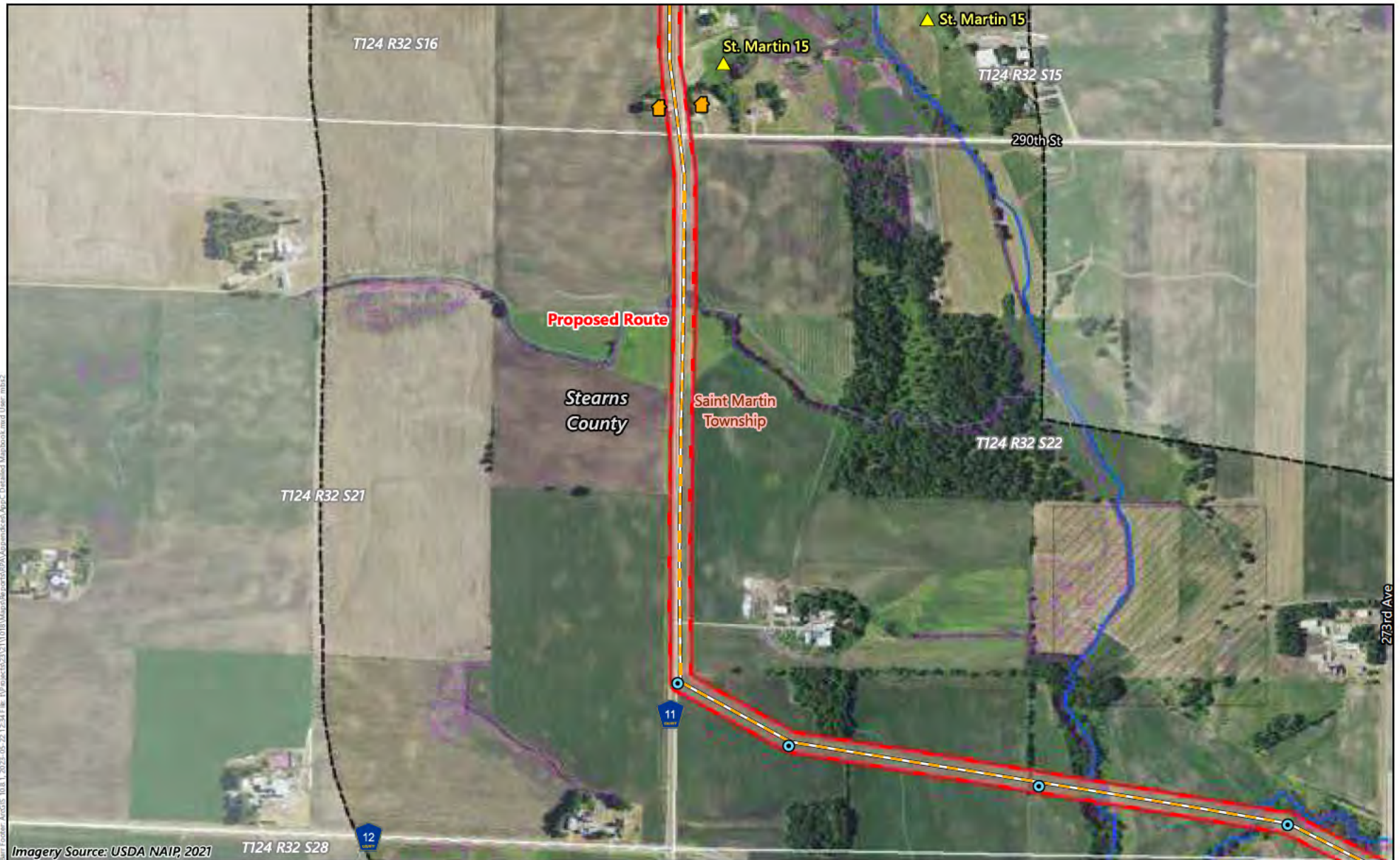
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-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Watercourse
-  Residence 75-300 Feet from Alignment
-  Calcareous Fen Location



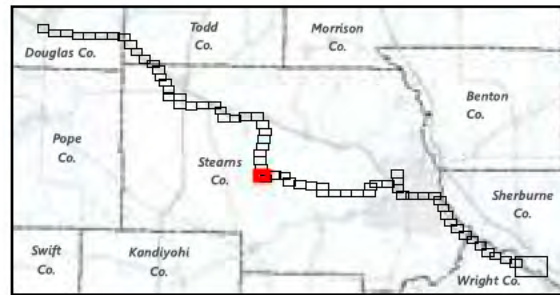
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
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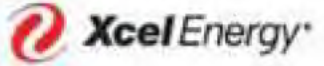
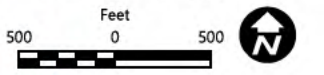


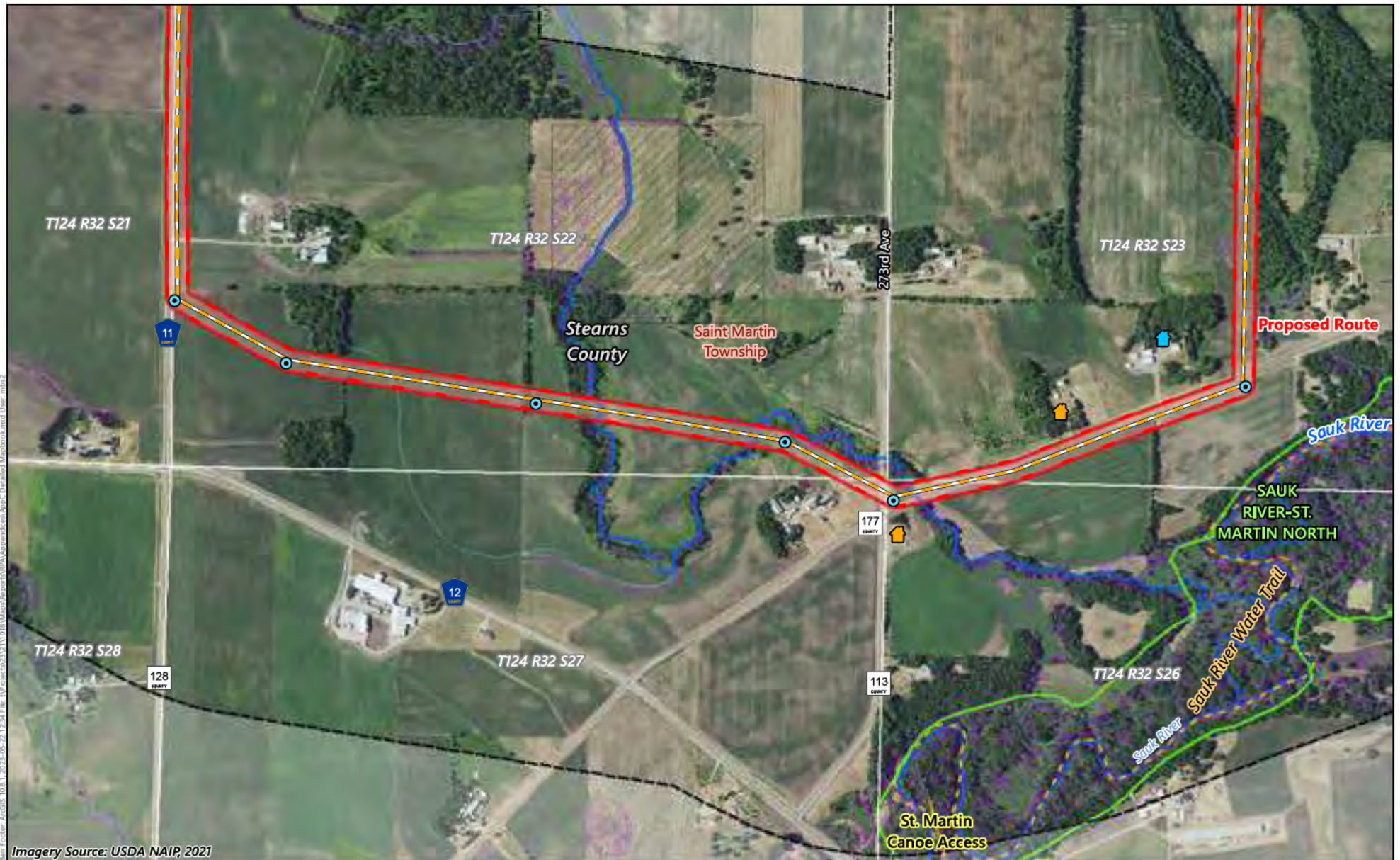
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- National Wetland Inventory
- Public Water Watercourse
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- Calcareous Fen Location



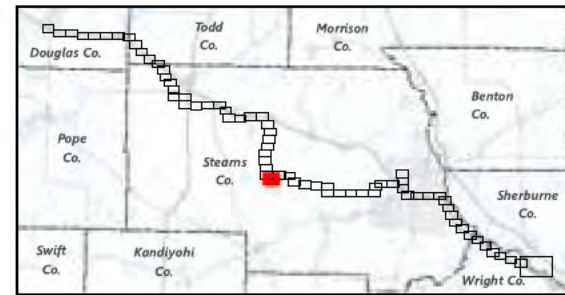
**ALEXANDRIA TO BIG OAKS
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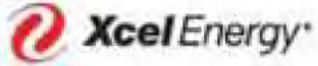
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- New Foundation and Pole
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- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
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- National Wetland Inventory
- State Water Trail
- Public Water Watercourse
- Site of Biodiversity Significance
- Residence 75-300 Feet from Alignment
- Residence 300-500 Feet from Alignment



**ALEXANDRIA TO BIG OAKS
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Route Permit Application**

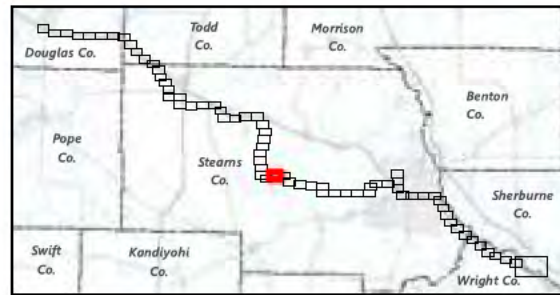
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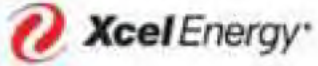
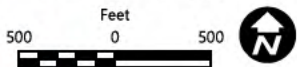


Imagery Source: USDA NAIP, 2021

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
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-  State Water Trail
-  Public Water Watercourse
-  Site of Biodiversity Significance
-  Residence 75-300 Feet from Alignment
-  Residence 300-500 Feet from Alignment













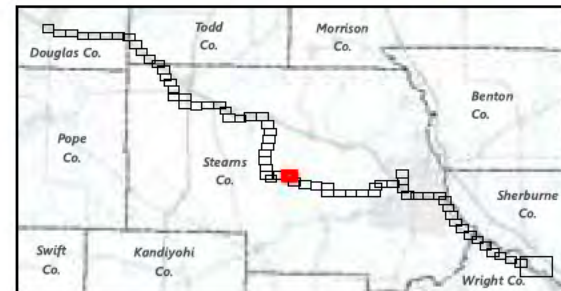
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
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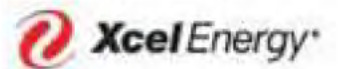
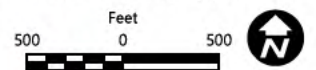


Imagery Source: USDA NAIP, 2021.32 S25

-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  State Water Trail
-  Public Water Watercourse

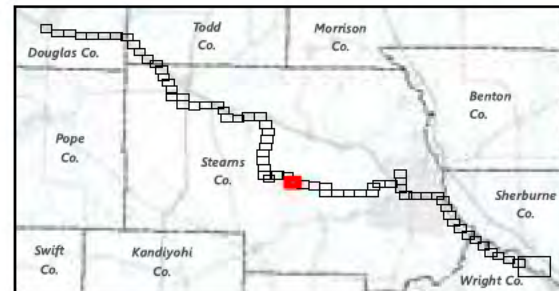


ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

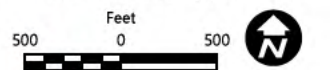


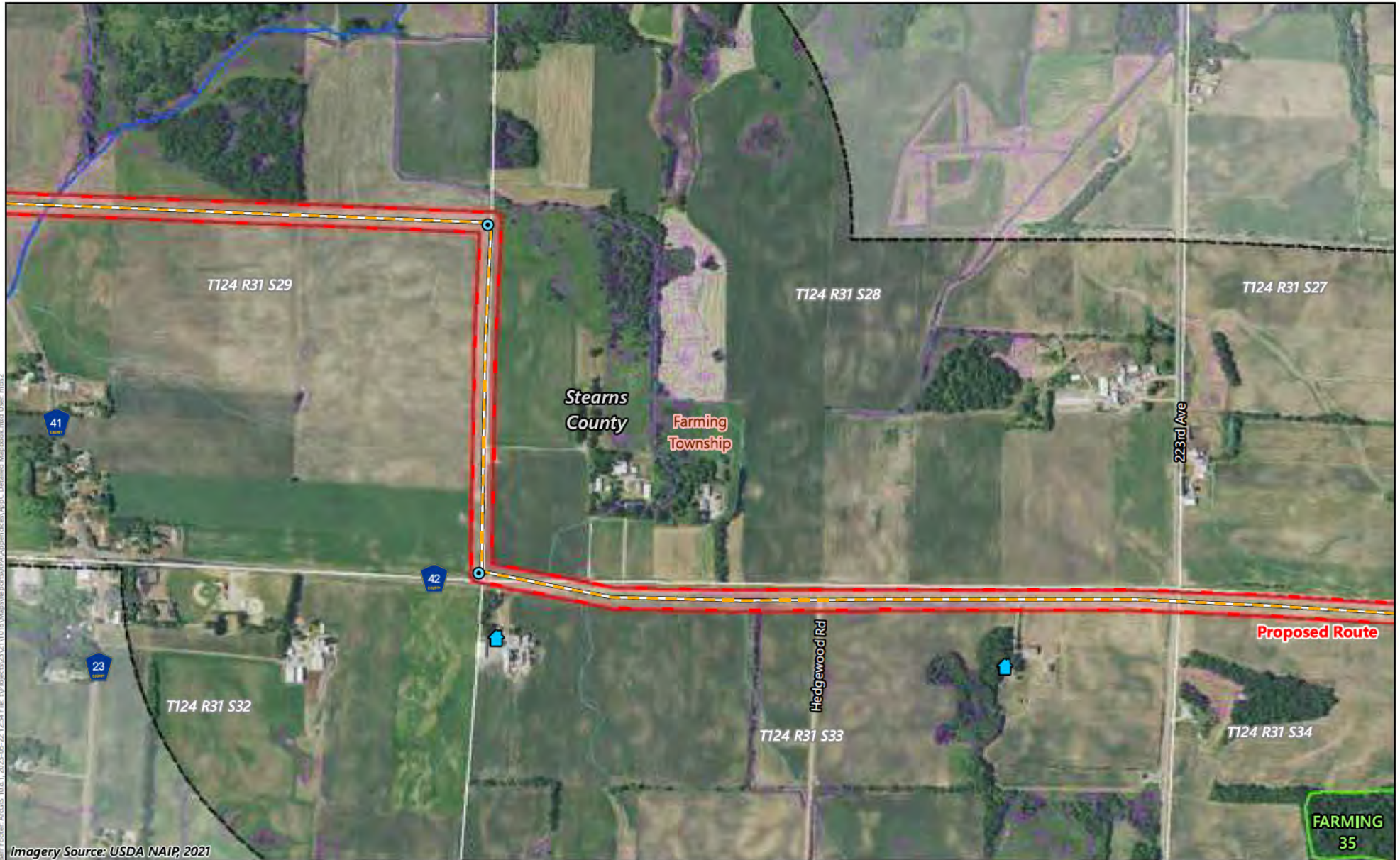




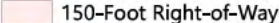

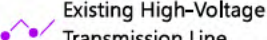
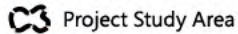
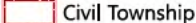
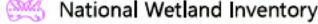


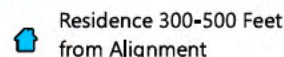
- New Foundation and Pole
- Anticipated Alignment (Existing)
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- Proposed Route
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- National Wetland Inventory
- State Water Trail
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- Residence 75-300 Feet from Alignment
- Residence 300-500 Feet from Alignment

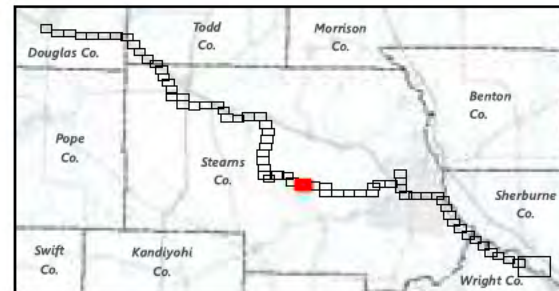


ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

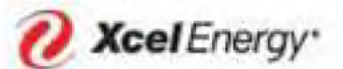
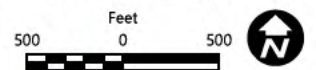


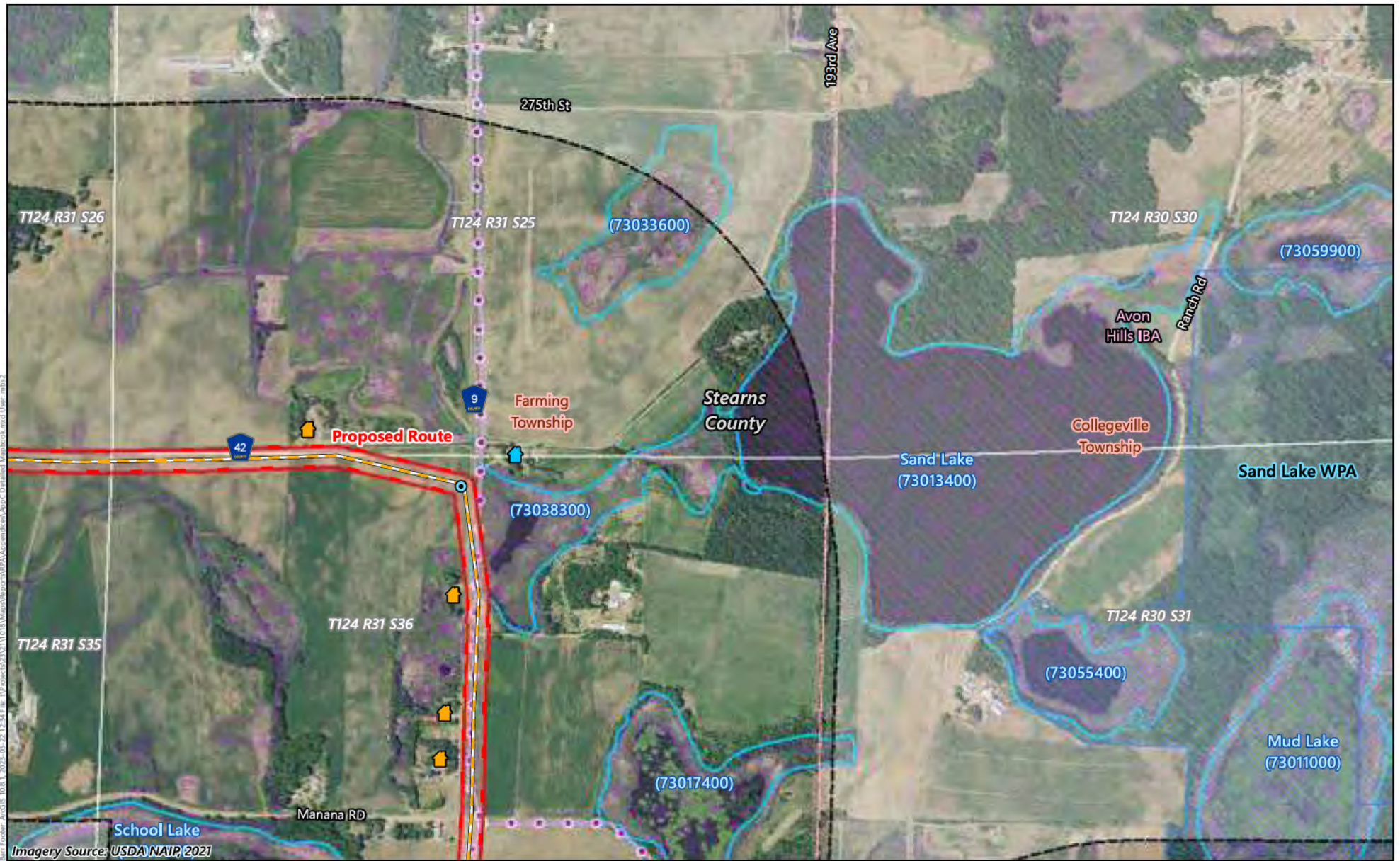


-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Watercourse
-  Site of Biodiversity Significance
-  Residence 300-500 Feet from Alignment

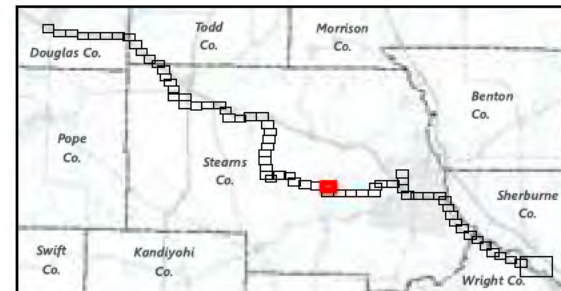


ALEXANDRIA TO BIG OAKS
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Route Permit Application

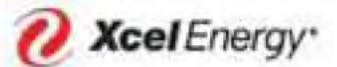
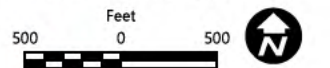




- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Important Bird Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- National Wetland Inventory
- Public Water Basin/Wetland
- Waterfowl Production Area
- Residence 75-300 Feet from Alignment
- Residence 300-500 Feet from Alignment



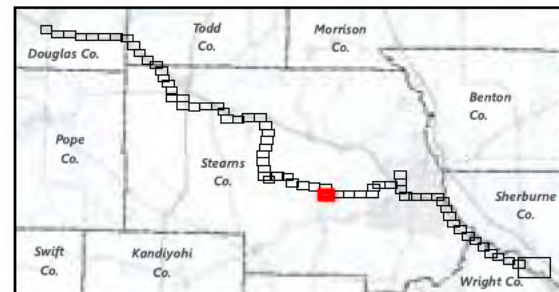
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



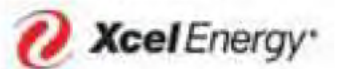
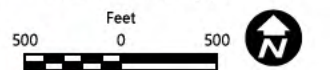


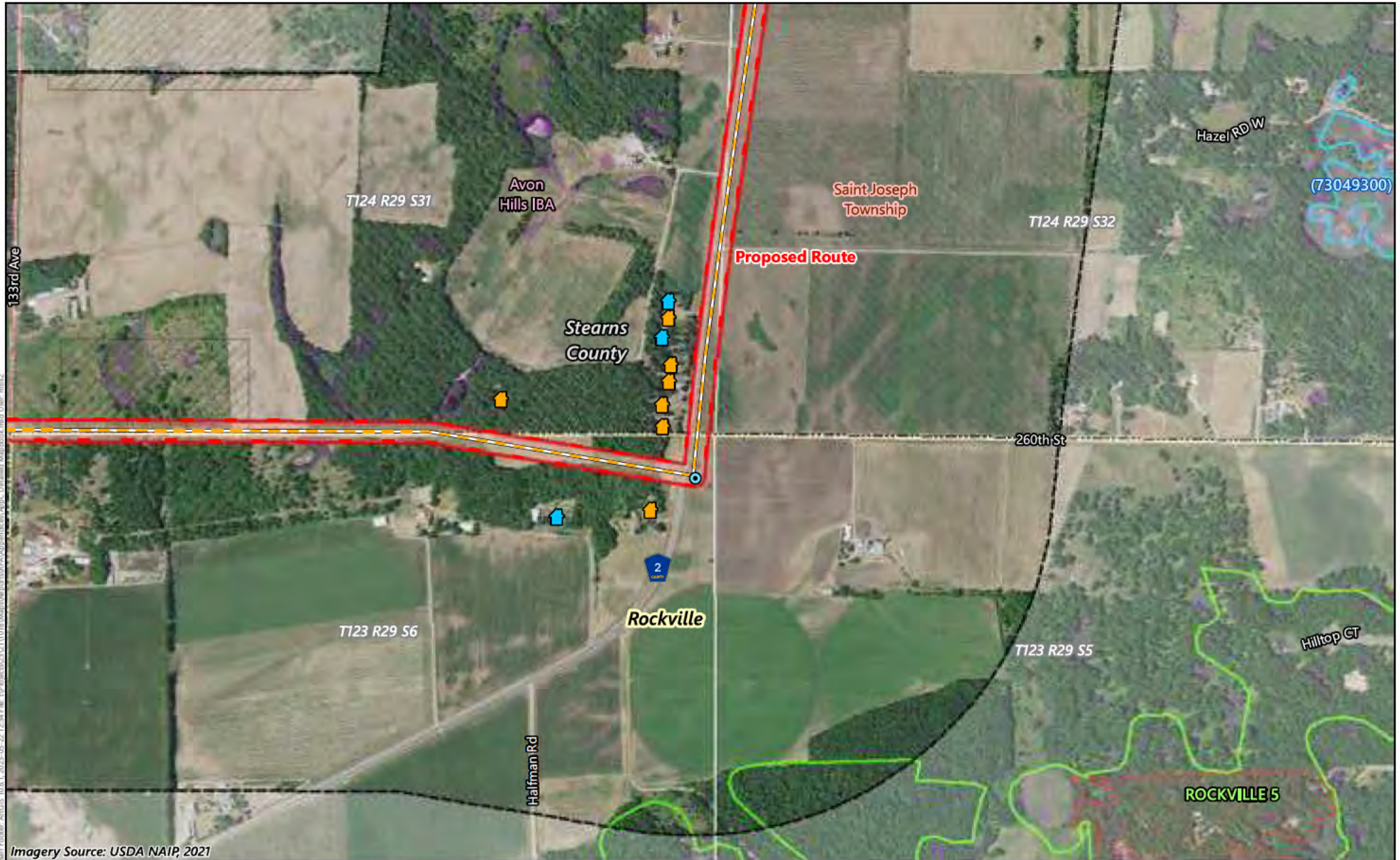
Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Important Bird Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- Native Plant Community
- National Wetland Inventory
- Public Water Basin/Wetland
- Public Water Watercourse
- Site of Biodiversity Significance
- Waterfowl Production Area
- Residence 75-300 Feet from Alignment
- Residence 300-500 Feet from Alignment



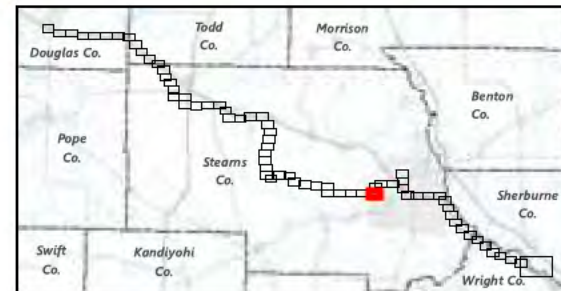
ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



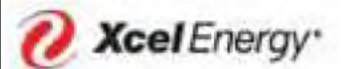
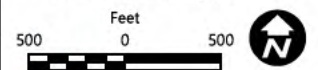


Imagery Source: USDA NAIP, 2021

- | | | |
|----------------------------------|---|---------------------------------------|
| New Foundation and Pole | Existing High-Voltage Transmission Line | National Wetland Inventory |
| Anticipated Alignment (Existing) | Project Study Area | Public Water Basin/Wetland |
| 150-Foot Right-of-Way | Municipal Boundary | Site of Biodiversity Significance |
| Proposed Route | Civil Township | Residence 75-300 Feet from Alignment |
| Grassland Bird Conservation Area | Native Plant Community | Residence 300-500 Feet from Alignment |
| Important Bird Area | | |



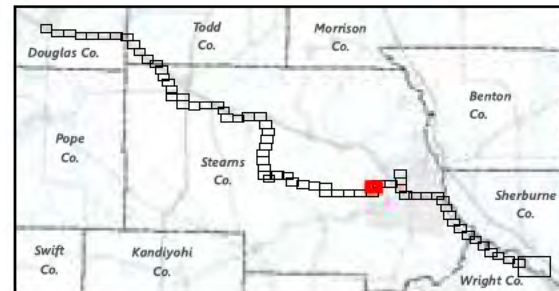
ALEXANDRIA TO BIG OAKS
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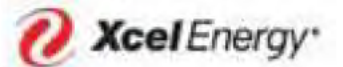
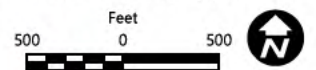


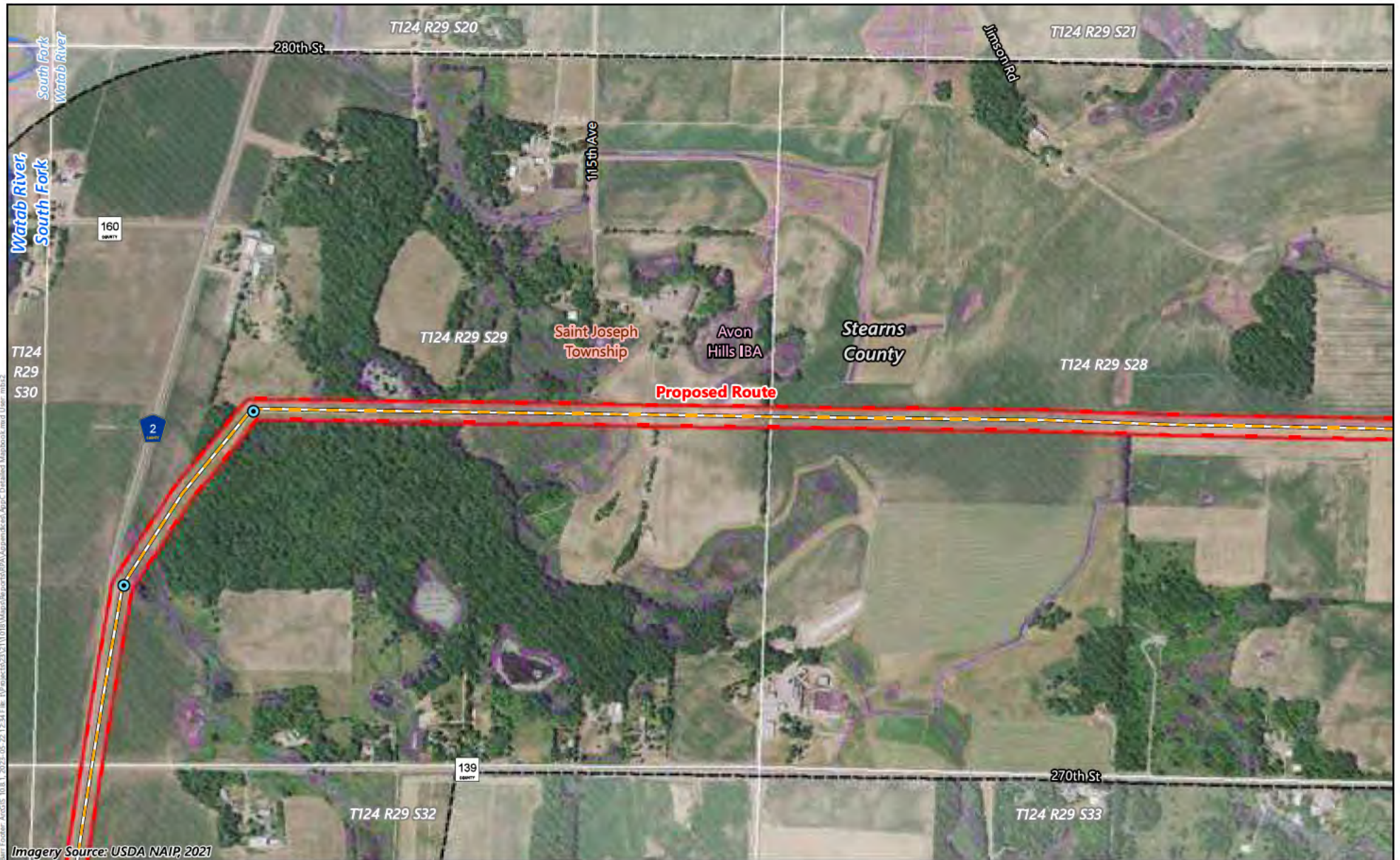
Imagery Source: USDA NAIP, 2021

- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Important Bird Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- National Wetland Inventory
- Public Water Basin/Wetland
- Public Water Watercourse

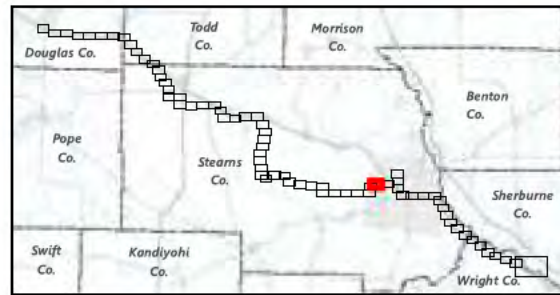


ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application



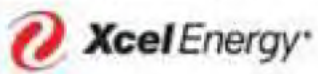


- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Important Bird Area
- Existing High-Voltage Transmission Line
- Project Study Area
- Civil Township
- National Wetland Inventory
- Public Water Watercourse



**ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application**

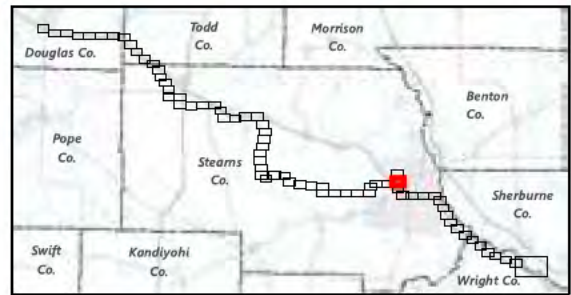
Feet
500 0 500





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- New Foundation and Pole
- Anticipated Alignment (Existing)
- 150-Foot Right-of-Way
- Proposed Route
- Grassland Bird Conservation Area
- Important Bird Area
- Existing High-Voltage Transmission Line
- Railroad
- Project Study Area
- Municipal Boundary
- Civil Township
- Wetland Banking Easement
- Native Plant Community
- National Wetland Inventory
- Public Water Basin/Wetland
- Public Water Watercourse
- Site of Biodiversity Significance
- Residence 300-500 Feet from Alignment

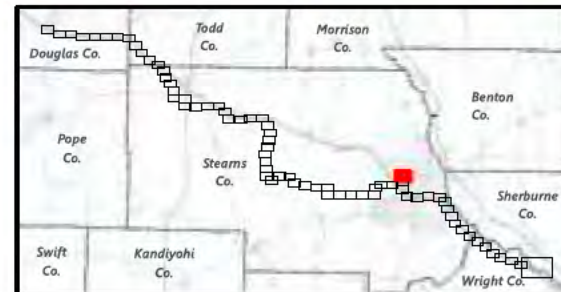


ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

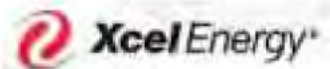
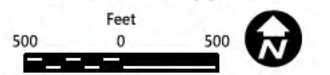
Feet
 500 0 500



- New Foundation and Pole
- Anticipated Alignment (Existing)
- Anticipated Alignment (New Build)
- 150-Foot Right-of-Way
- Preliminary Substation Footprint Expansion
- Proposed Route
- Existing High-Voltage Transmission Line
- Railroad
- Project Study Area
- Xcel-Owned Parcel
- Municipal Boundary
- Civil Township
- County/Municipal Park
- Native Plant Community
- National Wetland Inventory
- State Water Trail
- Public Water Watercourse
- Site of Biodiversity Significance
- Grassland Bird Conservation Area
- Important Bird Area

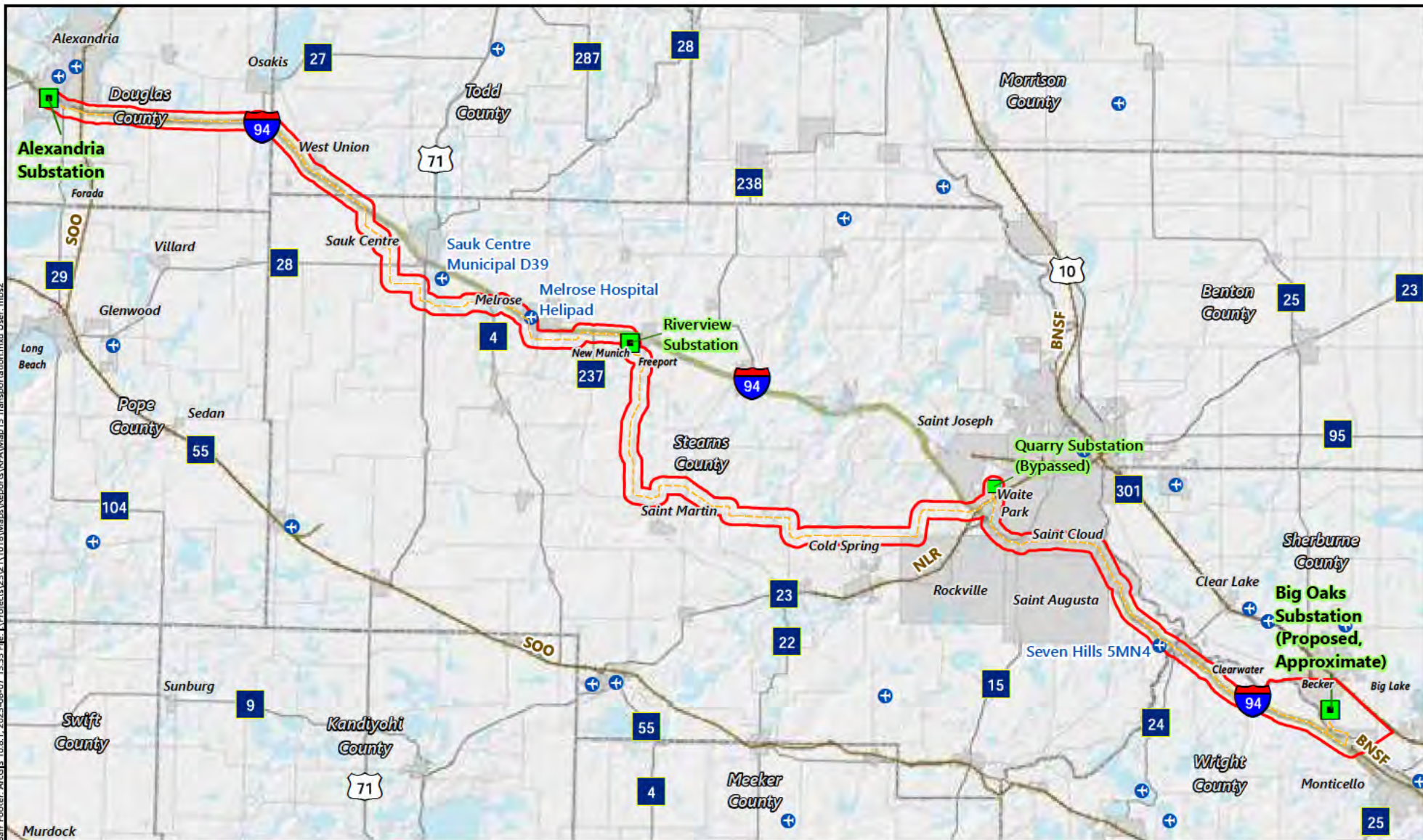














**ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application**



Map 7: Transportation

Bar Footer: ArcGIS 10.8.1, 2023-08-07 13:33 File: N:\Projects\23\211018\Map\Reports\BPA\Map13_Transportation.mxd User: mbs2



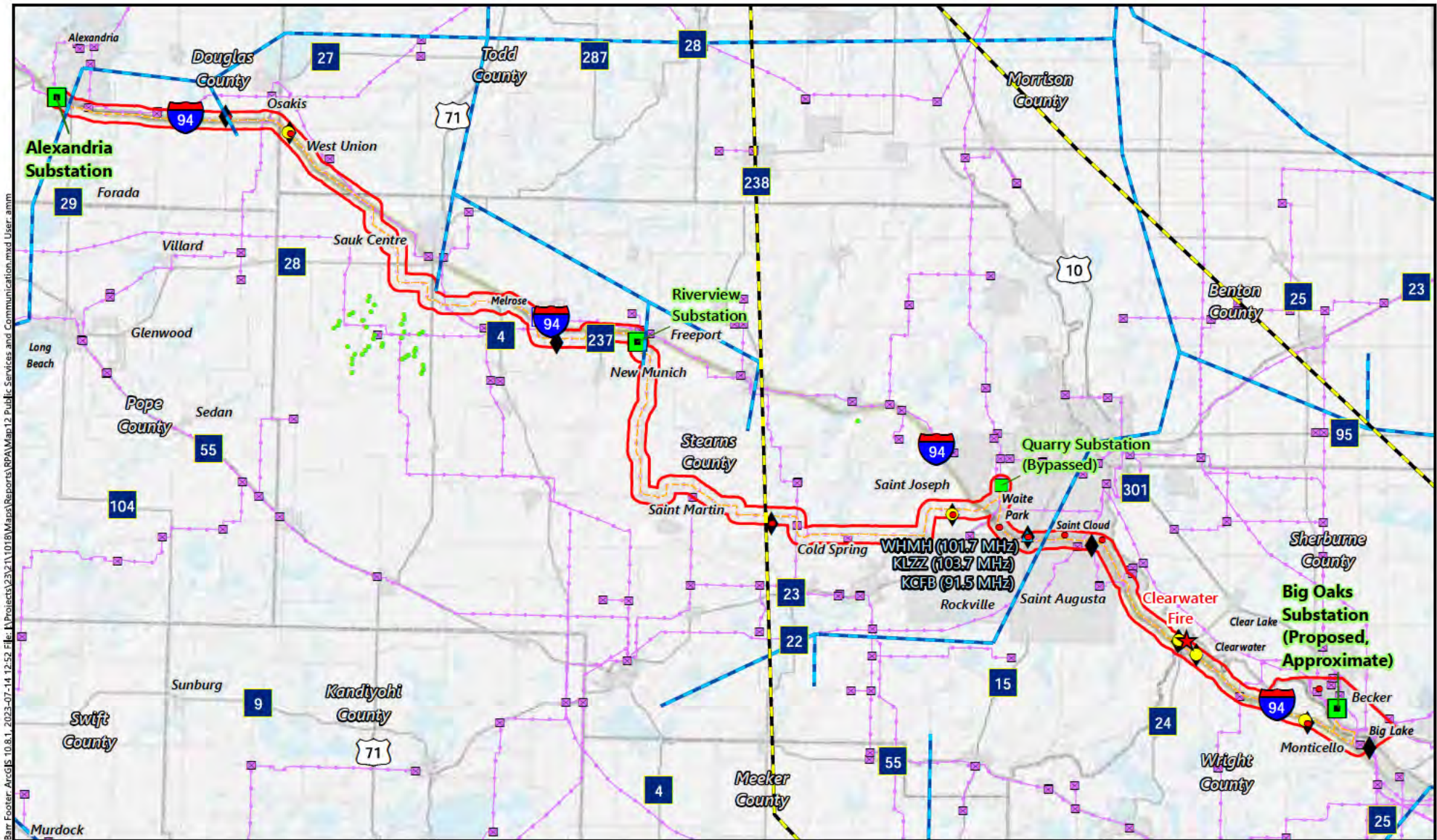
-  Project Study Area
-  Anticipated Alignment
-  Project Substation
-  Bypassed Substation
-  Municipal Boundary
-  County Boundary
-  Airport/Heliport (MNDOT, FAA)
-  Railroad
-  Interstate Highway
-  US Highway
-  State Highway
-  County State-Aid Highway



TRANSPORTATION
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Route Permit Application

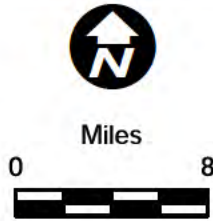
Data Sources: Minnesota Dept. of Transportation, Federal Aviation Administration

Map 8:
Pipelines and Public Services



Barr Footer: ArcGIS 10.8.1, 2023-07-14 12:52, File: N:\Projects\23\211018\Map\Reports\BPA\Map12_Public_Services_and_Communication.mxd User: amn

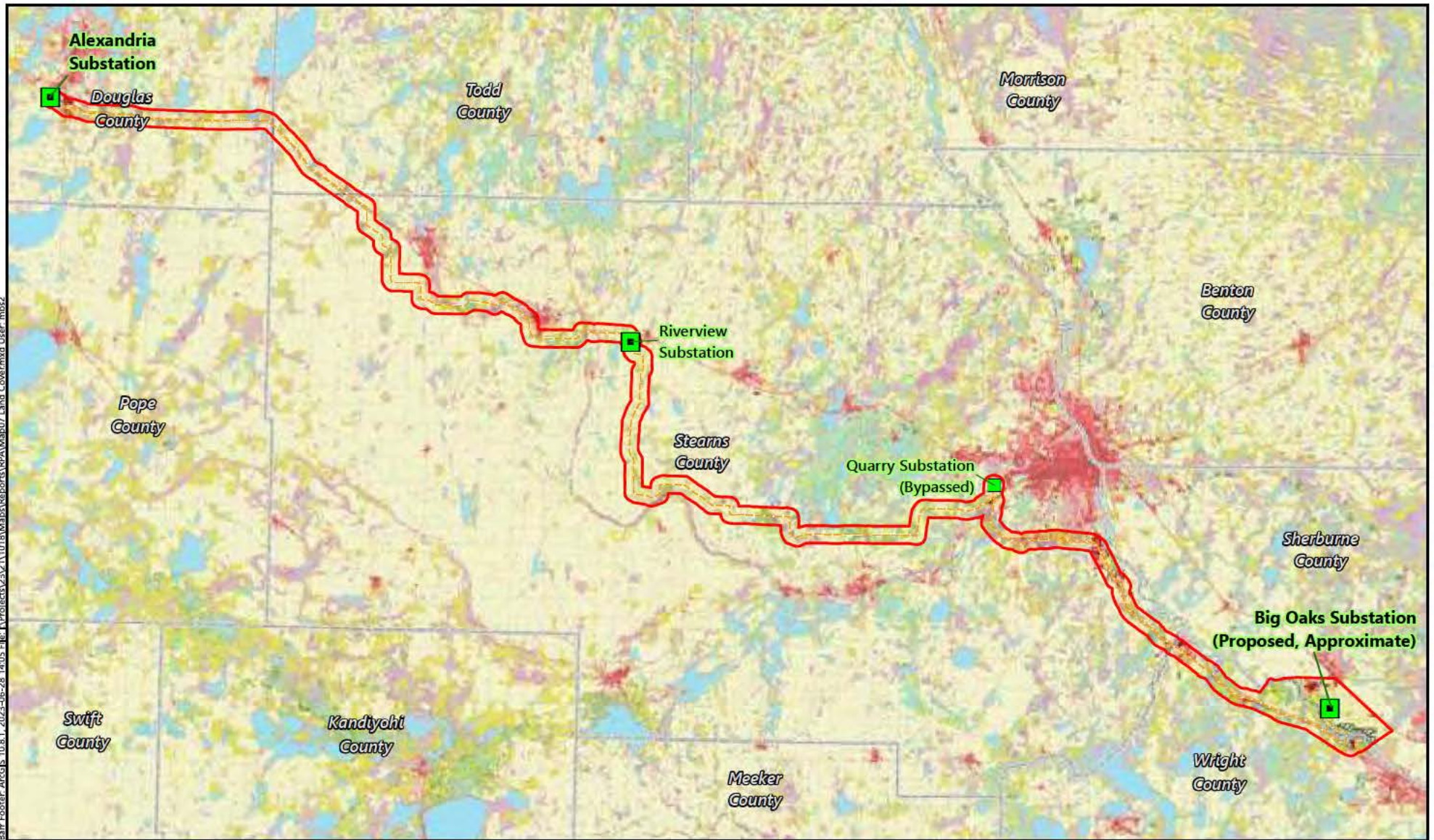
- | | | |
|---|------------------------------|--------------------------|
| Project Study Area | Wind Turbine | Fire Station |
| Anticipated Alignment | Microwave Service Site | Hospital |
| Project Substation | FM Radio Transmitter | Municipal Boundary |
| Bypassed Substation | Cellular Tower | County Boundary |
| Existing Substation | Antenna Structure | Interstate Highway |
| Existing High-Voltage Transmission Line | Approx. Underground Pipeline | US Highway |
| | Crude Oil | State Highway |
| | Natural Gas | County State-Aid Highway |



**PUBLIC SERVICES
AND COMMUNICATION**
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Route Permit Application

Data Sources:
 Minnesota Dept. of Transportation,
 Minnesota Geospatial Information Office,
 Federal Aviation Administration (FAA), Federal
 Communications Commission (FCC)

Map 9:
NLCD Land Cover









Bair Footer: ArcGIS 10.8.1, 2023-06-28 14:05 File: I:\Projects\23\2110\8\Maps\Reports\BPAMap07 Land Covered User.mxd

Land Cover (NLCD, 2019)

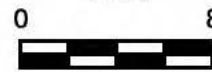
-  Open Water
-  Developed, Open Space
-  Developed, Low Intensity
-  Developed, Med. Intensity
-  Developed, High Intensity
-  Barren Land
-  Deciduous Forest

-  Evergreen Forest
-  Mixed Forest
-  Shrub/Scrub
-  Grassland/Herbaceous
-  Pasture/Hay
-  Cultivated Crops
-  Woody Wetlands
-  Emergent Herbaceous Wetlands

-  Project Study Area
-  Anticipated Alignment
-  Project Substation
-  Bypassed Substation
-  University of Minnesota Sand Plain Research Farm
-  County Boundary



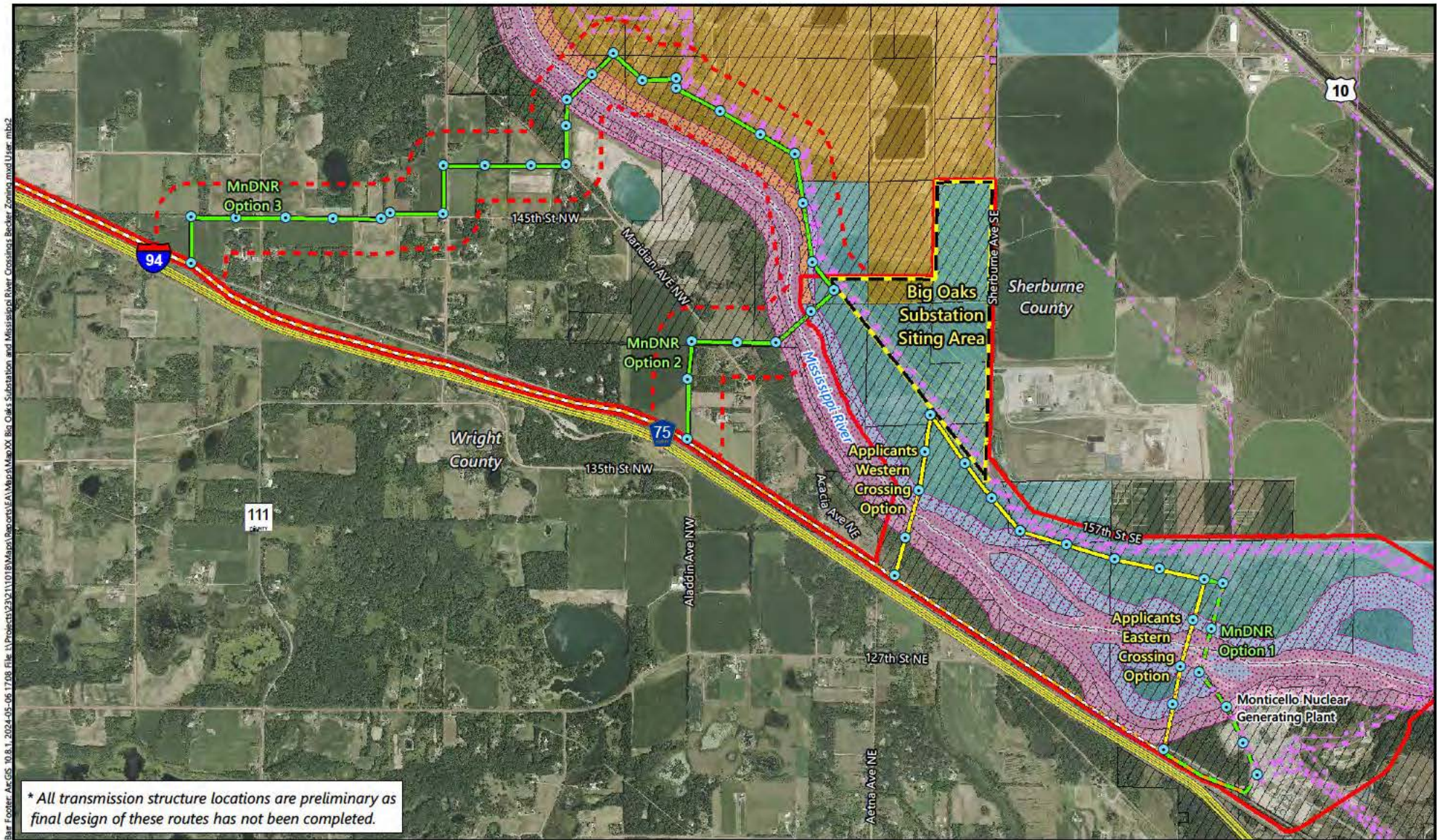
Miles



Data Source:
 Multi-Resolution Land Characteristics
 (MRLC) Consortium, University of Minnesota

LAND COVER
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Route Permit Application

Map 10:
Zoning and Structure Locations at River
Crossing



- Anticipated Alignment (Existing)
- Proposed Mississippi Crossing Option (New Build)
- MnDNR Mississippi Crossing Option (Rebuild/Expand)
- MnDNR Mississippi Crossing Option (Existing)
- MnDNR Mississippi Crossing Option (New Build)

- Proposed New Pole Location*
- Proposed Route
- MnDNR Option Route
- Shoreland District
- Utility-Owned Parcel
- City of Becker Zoning District
 - Agriculture
 - Industrial 2

Existing High-Voltage Transmission Line

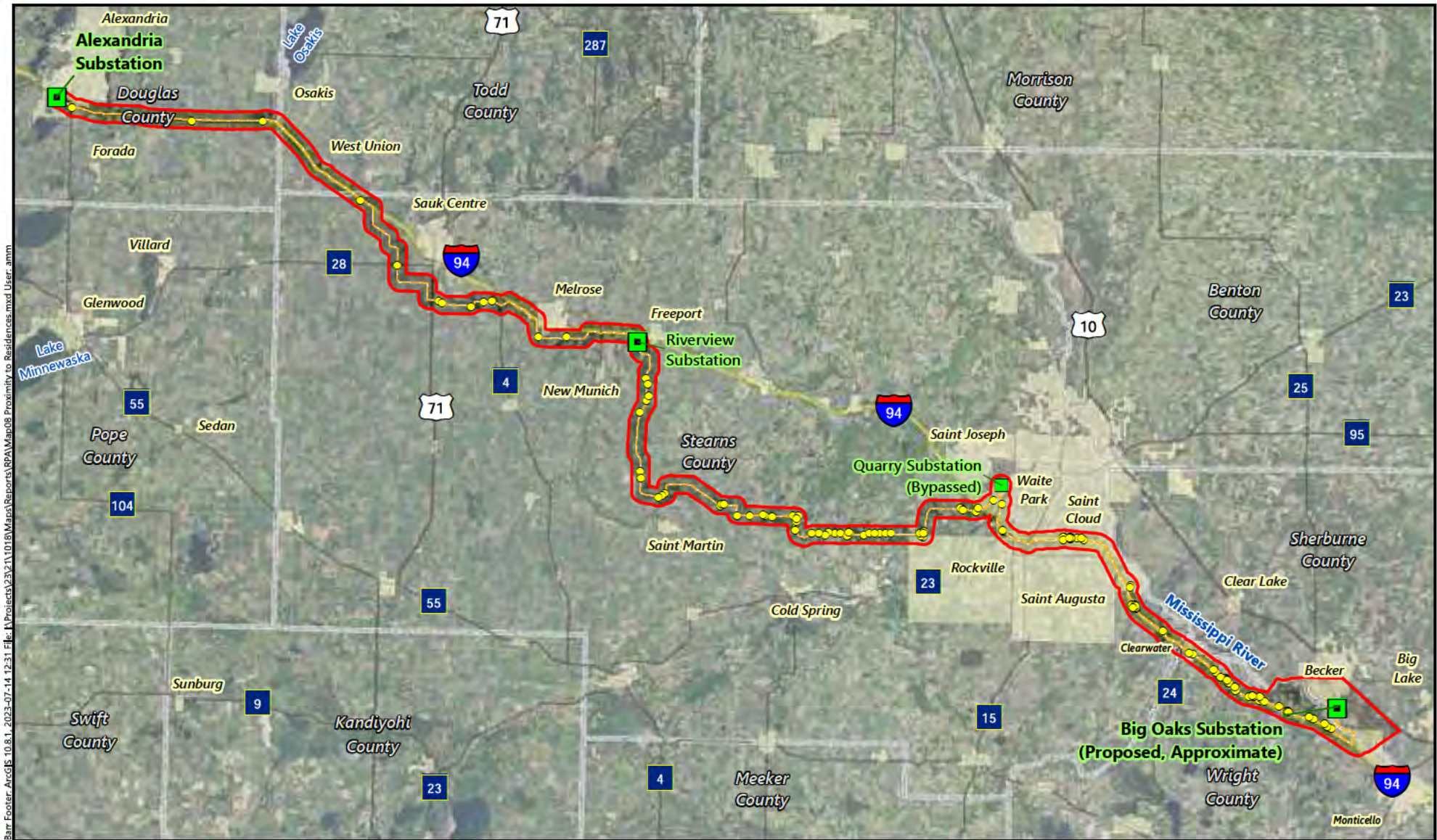
North

Feet

0 3,000

**CITY OF BECKER ZONING DISTRICTS
AT BIG OAKS SUBSTATION AND
MISSISSIPPI RIVER CROSSINGS**
ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment

Map 11:
Residences Along Alignment



Bar Footer: ArcGIS 10.8.1, 2023-07-14 12:31 File: I:\Projects\23\2110\6\Map\Reports\BPA\Map08 Proximity to Residences.mxd User: amn

- Residence within 500 Feet of Application Alignment
- Project Study Area
- Anticipated Alignment
- Project Substation
- Bypassed Substation
- Interstate Highway
- US Highway
- State Highway
- County State-Aid Highway
- + Municipal Boundary
- County Boundary
- State Boundary



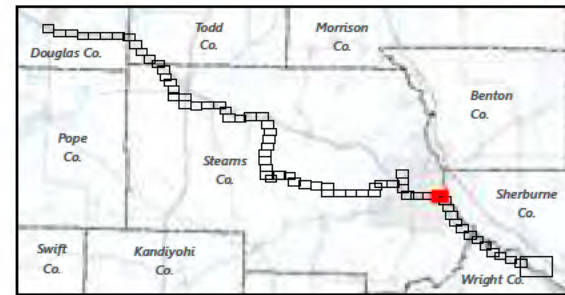
PROXIMITY TO RESIDENCES
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Route Permit Application

Map 12:
Nearest Residence

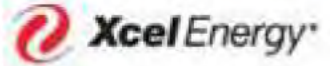
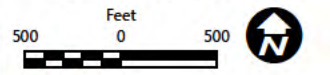


Imagery Source: USDA NAIP, 2021

-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Municipal Boundary
-  Civil Township
-  Native Plant Community
-  National Wetland Inventory
-  State Water Trail
-  Public Water Watercourse
-  Site of Biodiversity Significance
-  Residence 0-75 Feet from Alignment
-  Residence 300-500 Feet from Alignment















ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

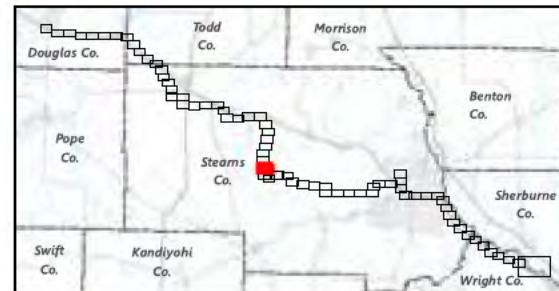


Map 13:
Calcareous Fen

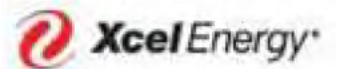
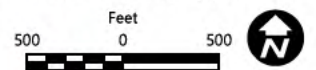


Imagery Source: USDA NAIP, 2021

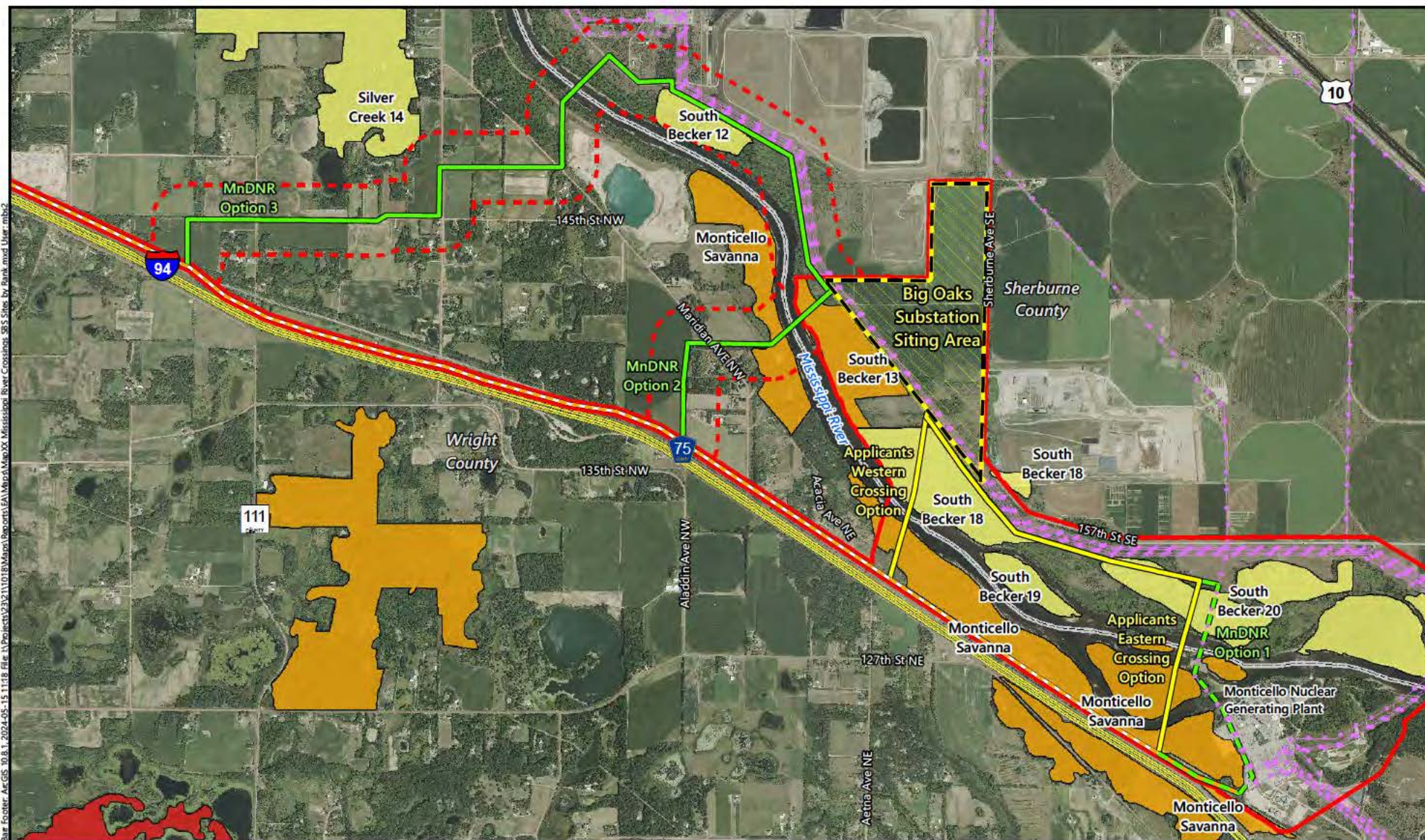
-  New Foundation and Pole
-  Anticipated Alignment (Existing)
-  150-Foot Right-of-Way
-  Proposed Route
-  Grassland Bird Conservation Area
-  Existing High-Voltage Transmission Line
-  Project Study Area
-  Civil Township
-  National Wetland Inventory
-  Public Water Watercourse
-  Residence 75-300 Feet from Alignment
-  Calcareous Fen Location



ALEXANDRIA TO BIG OAKS
MISO LRTP-2
Route Permit Application

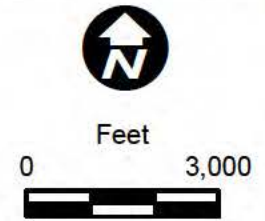


Map 14:
SBS Sites by Rank at River Crossing



- Application Alignment (Existing)
- Proposed Mississippi Crossing Option (New Build)
- MnDNR Mississippi Crossing Option (Rebuild/Expand)
- MnDNR Mississippi Crossing Option (Existing)
- MnDNR Mississippi Crossing Option (New Build)
- Proposed Route
- MnDNR Option Route
- Existing High-Voltage Transmission Line

- Site of Biodiversity Significance by Significance Ranking
- Outstanding
 - High
 - Moderate

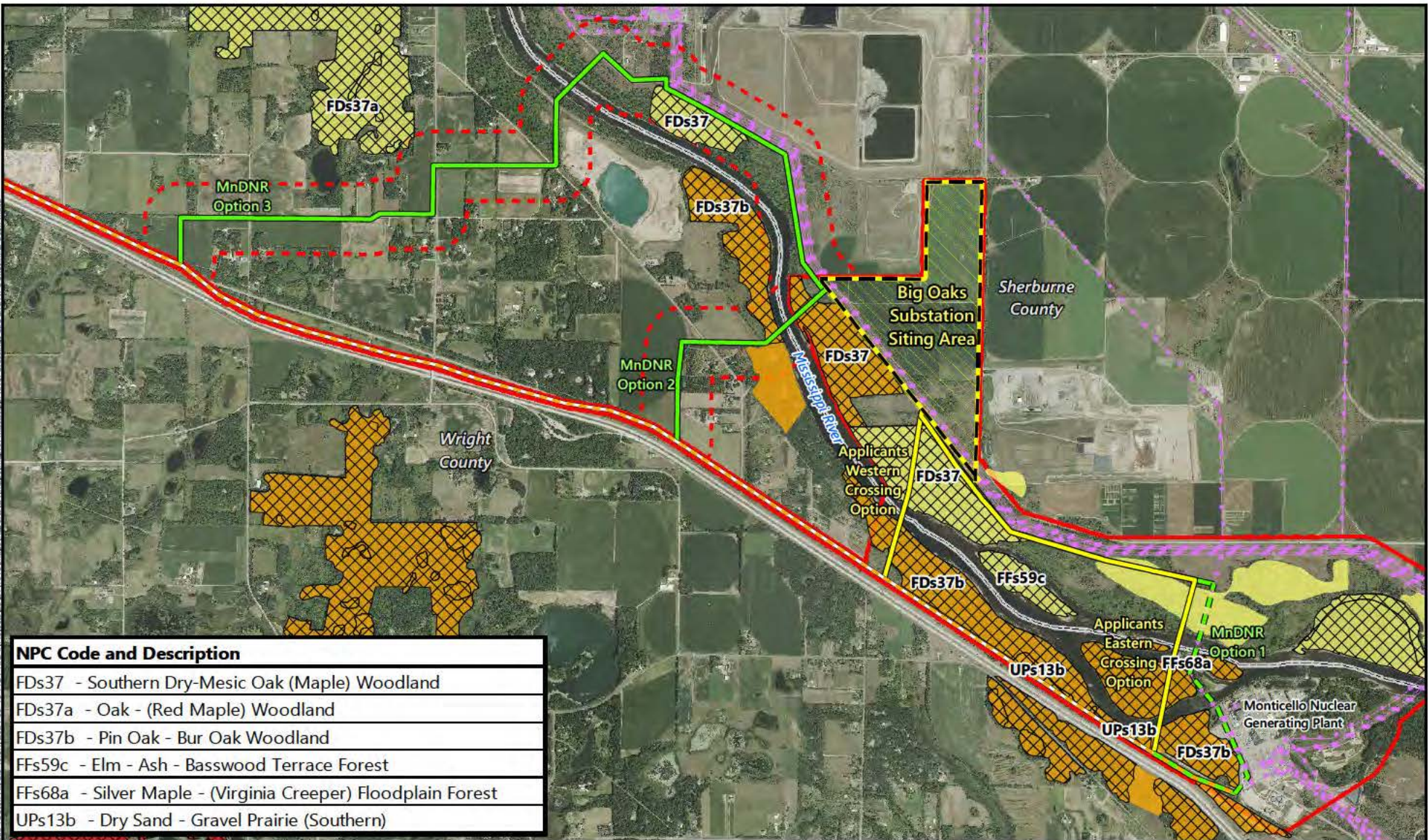


**MISSISSIPPI RIVER CROSSING
SITES OF BIODIVERSITY SIGNIFICANCE
ALEXANDRIA TO BIG OAKS
MISO LRTP-2 Environmental Assessment**

Bar Footer: ArcGIS 10.8.1, 2024-05-15 11:18 File: \\Projects\2302110218\Map\Reports\EA\Map\Map000_Mississippi River Crossings_SBS_Sites_by_Rank.mxd User: mbr2

Map 15:
SBS Sites and Native Plant Communities at
River Crossing

Bar Foster-AE-GIS 10.8.1. 2024-05-15 11:31 File: \\Projects\230211018\Mapa\Reports\EA\Mapa\Map00_Mississippi River Crossings_SBS and NPC Sites.mxd User: mb2

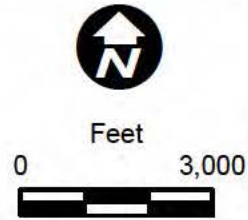


NPC Code and Description

| | |
|--------|---|
| FDs37 | - Southern Dry-Mesic Oak (Maple) Woodland |
| FDs37a | - Oak - (Red Maple) Woodland |
| FDs37b | - Pin Oak - Bur Oak Woodland |
| FFs59c | - Elm - Ash - Basswood Terrace Forest |
| FFs68a | - Silver Maple - (Virginia Creeper) Floodplain Forest |
| UPs13b | - Dry Sand - Gravel Prairie (Southern) |

- Application Alignment (Existing)
- Proposed Mississippi Crossing Option (New Build)
- MnDNR Mississippi Crossing Option (Rebuild/Expand)
- MnDNR Mississippi Crossing Option (Existing)
- MnDNR Mississippi Crossing Option (New Build)
- Proposed Route
- MnDNR Option Route
- Existing High-Voltage Transmission Line

- Native Plant Community*
- Site of Biodiversity Significance by Significance Ranking
- Outstanding
- High
- Moderate
- * Labeled with NPC Code



**MISSISSIPPI RIVER CROSSING
 NATIVE PLANT COMMUNITIES AND SITES
 OF BIODIVERSITY SIGNIFICANCE**
 ALEXANDRIA TO BIG OAKS
 MISO LRTP-2 Environmental Assessment