

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of the Application of Great River Energy for a Route Permit for a 115 kV Transmission-Line Project in the Elko New Market and Cleary Lake Areas in Scott and Rice Counties

ISSUE DATE: August 5, 2014

DOCKET NO. ET-2/TL-12-1245

ORDER ISSUING ROUTE PERMIT

PROCEDURAL HISTORY

I. Route-Permit Application

On June 20, 2013, Great River Energy (Great River) filed an application for a route permit to construct a 115-kilovolt (kV) transmission-line project in Scott and Rice counties. Great River filed an application for a certificate of need on the same date.¹

On September 9, 2013, the Commission found the application complete and referred it to the Office of Administrative Hearings (OAH) under Minn. R. 7850.3800 to develop the record on whether the project meets applicable permitting criteria.

The Commission issued a generic route permit for comment on November 25, 2013.

II. Environmental Assessment

On December 2, 2013, the Minnesota Department of Commerce (the Department) issued a scoping decision identifying potential alternatives and mitigation measures to be addressed in an environmental assessment of the project.

The Department issued its environmental assessment of the project on February 21, 2014.

III. ALJ's Report and Exceptions

On March 4, 2014, joint public hearings on the route-permit and certificate-of-need applications were held at the Elko New Market Public Library and Prior Lake High School. Administrative Law Judge (ALJ) Steve M. Mihalchik presided over the hearings.

The ALJ received written comments from the following stakeholders:

¹ Docket No. ET-2/CN-12-1235.

- Several area residents,
- The City of Elko New Market,
- Scott County,
- The Metropolitan Council,
- The Minnesota Department of Natural Resources (DNR),
- The U.S. Fish and Wildlife Service,
- The Department, and
- Great River.

On May 14, 2014, the ALJ filed his Findings of Fact, Conclusions of Law, and Recommendation (ALJ's report). The ALJ recommended that the Commission issue a route permit to Great River for the project with several conditions addressing stakeholder concerns.

On May 29, 2014, the Department filed exceptions to the ALJ's report. The Department generally supported the ALJ's report but suggested two corrections to the ALJ's conclusions of law.

On July 10, 2014, the matter came before the Commission.

FINDINGS AND CONCLUSIONS

I. The Proposed Project

The project is designed to address low voltages and transmission-system overloads in the Elko New Market and Cleary Lake area. Great River proposes to rebuild 11.3 miles of existing 69 kV lines to 115 kV standards, as follows:

- From Prior Lake Junction south to Credit River Junction (3.5 miles),
- From Credit River Junction west to Minnesota Valley Electric Cooperative's (MVEC's) Cleary Lake Substation (0.9 miles),
- From Cleary Lake Substation northwest to Xcel Energy's Credit River Substation (1.3 miles), and
- From MVEC's Elko Substation to its New Market Substation (5.6 miles).

At the southern end of the project, Great River proposes to construct a new double-circuit 115 kV line connecting MVEC's New Market Substation to Xcel's Veseli Breaker Station. This line would proceed by one of two routes: The "West Option" starts at the New Market Substation, following Highway 23, Highway 86, and Halstad Avenue to the Veseli Breaker Station, a total distance of 5.4 miles. The "East Option" splits off from Great River's existing line to the east of the New Market Substation and follows Highway 27, Highway 86, and Halstad Avenue to the Veseli Breaker Station, a total distance of 6.5 miles.

Because the project involves constructing transmission lines greater than 100 kV and longer than 1,500 feet, Great River must obtain a route permit from the Commission.²

² See Minn. Stat. §§ 216E.03, subd. 2 (providing that no person may construct a "high-voltage transmission line" without a route permit) and 216E.01, subd. 4 (defining "high-voltage transmission line" as "a conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 100 kilovolts or more . . . greater than 1,500 feet in length").

II. Legal Standard for a Route Permit

The Commission's route-permit determinations are guided by Minnesota's goals to conserve resources, minimize environmental impacts, minimize human settlement and other land-use conflicts, and ensure the state's electric-energy security through efficient, cost-effective power supply and transmission infrastructure.³ The routing statute requires the Commission to consider the following non-exclusive factors in deciding whether to issue a route permit:

- evaluation of research and investigations relating to the effects on land, water and air resources of high-voltage transmission lines and the effects of electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials, and aesthetic values;
- environmental evaluation of routes proposed for future development and expansion and their relationship to the land, water, air, and human resources of the state;
- evaluation of the effects of new power-generation and -transmission technologies;
- analysis of the direct and indirect economic impact of proposed routes including, but not limited to, productive agricultural land lost or impaired;
- evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed route be accepted;
- evaluation of alternatives to the applicant's proposed route;
- evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;
- evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;
- evaluation of the future needs for additional high-voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expanding transmission capacity through multiple circuiting or design modifications;
- evaluation of irreversible and irretrievable commitments of resources should the proposed route be approved; and
- when appropriate, consideration of problems raised by other state and federal agencies and local entities.⁴

Under its rules, the Commission must also consider the following factors in determining whether to issue a permit for a high-voltage transmission line:

- A. effects on human settlement including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;
- B. effects on public health and safety;

³ Minn. Stat. § 216E.03, subd. 7(a).

⁴ *Id.*, subd. 7(b).

- C. effects on land-based economies including, but not limited to, agriculture, forestry, tourism, and mining;
- D. effects on archaeological and historic resources;
- E. effects on the natural environment, including effects on air and water quality, flora, and fauna;
- F. effects on rare and unique natural resources;
- G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;
- H. use or paralleling of existing rights-of-way, survey lines, natural division lines, and agricultural field boundaries;
- I. use of existing large electric power generating plant sites;
- J. use of existing transportation, pipeline, and electrical transmission systems or rights-of-way;
- K. electrical-system reliability;
- L. costs of constructing, operating, and maintaining the facility that are dependent on design and route;
- M. adverse human and natural environmental effects which cannot be avoided; and
- N. irreversible and irretrievable commitments of resources.⁵

Any route permit issued by the Commission must specify the design, routing, right-of-way preparation, and facility construction, along with any other conditions the Commission deems appropriate.⁶

III. The ALJ's Report

The ALJ found that the environmental assessment and the record address the issues and alternatives raised in the Department's scoping decision; that the proposed route satisfies the factors set forth in Minn. Stat. § 216E.04, subd. 8, and Minn. R. 7850.4100; and that the West Option should be used to connect to Xcel's Veseli Breaker Station.

The ALJ recommended that the Commission issue a standard transmission-line route permit with the following special conditions:

- Require Great River to coordinate with Scott County regarding the County's planned upgrades of Country Road 27 and 250th Street;
- Require Great River to install bird flight diverters;
- Require Great River to develop an avian mitigation plan for use during construction and allow the DNR an opportunity to comment on the plan;

⁵ Minn. R. 7850.4100.

⁶ Minn. Stat. § 216E.03, subd. 10(b).

- Require Great River to work with the Three Rivers Park District to develop a vegetation-management plan;
- Require that tree clearing occur between October 1 and March 31 if the northern long-eared bat is listed under the Endangered Species Act;
- Require Great River to work with the Minnesota Department of Agriculture to determine what, if any, mitigation measures beyond normal construction protocol are necessary to minimize the project's impact on agricultural lands; and
- Require Great River to coordinate with the DNR regarding rare species, including whether further surveys are necessary.

IV. The Department's Exceptions

The Department filed two exceptions to the ALJ's report. First, the Department recommended striking a reference in Conclusion 5 to Minn. R. 7850.2500, a rule that relates to environmental impact statement (EIS) preparation. An EIS was not required in this case.

Second, the Department recommended a change to Conclusion 11, which incorrectly states that the East Option is shorter than the West Option:

In the southern area, the West Option is generally superior to the East Option. The East Option is somewhat ~~shorter~~ longer, ~~but~~ and has negative impacts upon planned road projects, parkland, and possible other environmental impacts. The City of Elko New Market opposes the East Option.

V. Commission Action

A. ALJ's Report Adopted with Modifications

The Administrative Law Judge's Report is well reasoned, comprehensive, and thorough. Having itself examined the record, the Commission concurs in the great majority of the ALJ's findings, conclusions, and recommendations. The Commission also agrees with the Department's exceptions as outlined above. The Commission will adopt the ALJ's report with the Department's modifications, since those modifications enhance the report's accuracy.

B. Route Permit Issued with Additional Protections for Wildlife

The Commission concurs in the ALJ's recommended special permit conditions. In addition to those conditions, the Commission will include the following conditions to more fully address the DNR's comments regarding wildlife-protection measures during the project's construction.

1. Wildlife-Friendly Erosion-Control Materials

In its comments, the DNR stated that traditional erosion-control mesh is known to cause injury and may be fatal to wildlife, particularly reptiles and amphibians. The DNR therefore recommended that Great River use wildlife-friendly erosion control mesh, especially in or near wetlands.

To address the DNR's concern, the Commission will include the following condition in the route permit:

5.1.7 Wildlife-Friendly Erosion Control Materials

The Permittee, in cooperation with the Minnesota Department of Natural Resources, shall use wildlife-friendly erosion control materials in areas known to be inhabited by wildlife species (birds, small mammals, reptiles, and amphibians) susceptible to entanglement in plastic netting.¹

¹ <http://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf>

2. Mitigating Impacts to Rare Species

The DNR requested that the route permit include a condition requiring Great River to coordinate with the DNR regarding rare species, including determining the need for surveys in areas that may contain rare species. Based on the DNR's comments, the ALJ concluded that the route permit should contain a condition "that Great River Energy coordinate with the MnDNR regarding rare species, including whether further surveys are necessary."⁷ This condition has been included in the route permit as Condition 5.1.6.

According to the DNR, the project is within an area of statewide importance to the Blanding's turtle, a state-listed threatened species. The DNR therefore also requested that the permit require Great River to coordinate with it specifically "regarding avoiding taking of a Blanding's turtle in wetlands for this project area."

To address the DNR's specific concern about Blanding's turtles, the Commission will add the following sentence to Condition 5.1.6: "Specifically, the Permittee shall coordinate with the MNDNR regarding Blanding's Turtles prior to construction in wetlands."

The DNR has developed a fact sheet on Blanding's turtles that includes recommendations for avoiding and minimizing impacts to the species. To help ensure that best practices are observed during construction, the Commission will include a permit condition requiring Great River to follow the DNR's recommendations:

5.1.8 Rare and Unique Resources

The Permittee shall follow measures and recommendations for avoiding and minimizing impacts to Blanding's turtle populations as outlined in the Minnesota Department of Natural Resources Environmental Review Fact Sheet Series for the Blanding's Turtle.² Construction and maintenance personnel will be made aware of rare resources and plant communities during pre-construction meetings to minimize potential disturbance. The Permittee shall avoid impacts to state-listed endangered, threatened, and special concern species in all areas of the project including temporary workspaces associated with the project.

² http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf

⁷ ALJ's Report, Conclusion 19.

For the foregoing reasons, the Commission will issue the attached high-voltage transmission-line route permit with the conditions discussed above.

ORDER

1. The Commission approves and adopts the ALJ's Report with the modifications proposed by the Department.
2. The Commission hereby issues the attached high-voltage transmission-line route permit.
3. This order shall become effective immediately.

BY ORDER OF THE COMMISSION



Burl W. Haar
Executive Secretary



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STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION
LINE AND ASSOCIATED FACILITIES**

**IN
SCOTT AND RICE COUNTIES**

**ISSUED TO
GREAT RIVER ENERGY**

PUC DOCKET NO. ET-002/TL12-1245

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850 this route permit is hereby issued to:

GREAT RIVER ENERGY

Great River Energy is authorized by this route permit to construct 5.4 miles of double-circuit 115 kV transmission line and rebuild 11.3 miles of existing 69 kV transmission line to 115 kV standards in the Elko New Market and Cleary Lake Areas in Scott and Rice Counties, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit and as portrayed on the official route maps, and in compliance with the conditions specified in this permit.

Approved and adopted this 5th day of August, 2014

BY ORDER OF THE COMMISSION



Burl W. Haar,
Executive Secretary

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- Attachment A – Complaint Procedures for High-Voltage Transmission Lines
- Attachment B – Compliance Filing Procedure for Permitted Energy Facilities
- Attachment C – Compliance Filing List

1.0 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Great River Energy (Permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes Great River Energy to construct 5.4 miles of double-circuit 115 kV transmission line and rebuild 11.3 miles of existing 69 kV transmission line to 115 kV standards in the Elko New Market and Cleary Lake Areas in Scott and Rice Counties, Minnesota, and as identified in the attached route permit maps, hereby incorporated into this document.

Pursuant to Minn. Stat. § 216E.10, this route permit shall be the sole approval required to be obtained by the Permittee for construction of the transmission facilities and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

2.0 PROJECT DESCRIPTION

The Project includes construct approximately 5.4 miles of new double circuit 115 kilovolt (kV) transmission line and to rebuild approximately 11.3 miles of existing 69 kV transmission line to 115 kV standards.

2.1 Project Location

The proposed project is located in the townships of Cedar Lake, Credit River, New Market, Spring Lake, Webster, and Wheatland and the cities of Elko New Market, Prior Lake, and Savage in Rice and Scott counties.

County	Township Name	Township	Range	Section
Scott	Savage	115N	21W	28, 29, 32, 33
	Credit River TWP	114N	21W	4, 5, 7, 8, 9
	Spring Lake TWP	114N	22W	1, 12
	New Market TWP	113N	21W	15, 16, 17, 19, 21, 22, 30, 31, 32
	Elko New Market	113N	21W	20
	Cedar Lake TWP	113N	22W	13, 14, 22, 23, 24, 26, 27, 34, 35, 36
Rice	Webster TWP	112N	21W	5, 6
	Wheatland TWP	112N	22W	1, 2, 11, 12

2.2 Associated Facilities

The transmission line and associated facilities shall be designed to meet or exceed all relevant local and state codes, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearances to ground, clearance to crossing utilities, clearance to buildings, strength of materials, clearances

over roadways, right-of-way widths, and permit requirements. The transmission line shall be equipped with protective devices to safeguard the public if an accident occurs.

2.2.1 Substations

No substation construction is authorized.

2.2.2 Structures

The structures authorized for the project are specified as below.

The table below details specifics on the various structure types as presented in the route permit application.

Line Type	Conductor	Structure		Foundation	Height	Span
		Type	Material			
115 kV Single circuit or Double circuit	795 ACSS	Single pole, horizontal post or horizontal braced post insulator	Wood, laminated wood, galvanized steel or weathering steel	Direct embedded for tangents and guyed or self- supporting for angle/ dead-end structures	52-92	350 to 400
115 kV Single circuit	795 ACSS	Two pole or H-Frame	Wood, laminated wood, galvanized steel or weathering steel	Direct embedded for tangent H- Frame and guyed or self- supporting for angle/ dead-end structures	52-75	600 to 1000
115 kV Single circuit with 69 kV or Distribution Underbuild	795 ACSS	Single pole, horizontal post or braced post with underbuild crossarm	Wood, laminated wood, galvanized steel or weathering steel	Direct embedded for tangents and guyed or self- supporting for angle/ dead-end structures	52-92	250 to 350

2.2.3 Conductors

The conductors authorized for the project be will be 795 thousand circular mil aluminum conductor steel-supported (ACSS) with seven steel core strands and 26 outer aluminum strands.

3.0 DESIGNATED ROUTE

The route designated by the Commission in this permit is the route described below and shown on the route maps attached to this permit. The route is generally described as follows:

Cleary Lake Area Rebuild MV-PN Line

This line begins at Prior Lake Junction, located in the southeast corner of the intersection of Eagan Drive (County State Aid Highway 42) and Dakota Avenue (County State Aid Highway 27), and runs south along County State Aid Highway (CSAH) 27 and the section line for about 1.0 mile. The transmission line leaves the highway and continues along the section line for approximately 1.75 miles until it meets up with a north/south portion of Murphy Lake Boulevard (CR 75) and then continues south on the section line approximately 0.75 mile to Credit River Junction, which is located approximately 350 feet east of Murphy Lake Boulevard on 175th Street East.

Cleary Lake Area Rebuild MV-CR Line

From Credit River Junction, the line runs west on 175th Street East for about 0.5 mile and to the end of 175th St., and then west cross country for approximately 0.4 miles into the MVEC Cleary Lake Substation. From the Cleary Lake Substation, the transmission line crosses over Texas Avenue (CSAH 27) and then runs northwest adjacent to Eagle Creek Avenue SE (CSAH 21) for 1.2 miles to just past the intersection of CSAH 21 and 170th Street East. The transmission line then runs straight north, for about 0.1 mile across Eagle Creek Ave. (CSAH 21) and Credit River Road SE, and into Xcel Energy's Credit River Substation, on the east side of Welcome Avenue SE.

Elko New Market Area Rebuild MV-PN Line

From the intersection of County Road (CR) 62 (245th St. E) and County Highway 91 (Natchez Avenue), this line runs south along Natchez Avenue for approximately 0.6 miles, then turns and heads west for 5.0 miles along 250th St. E to the New Market Substation (owned by MVEC) at the intersection of 250th St. E and CSAH 23.

Elko New Market Area New Transmission Line

Approximately 5.4 miles of the new double circuit transmission line (built to 115 kV standards) to the Veseli Breaker Station would run from the MVEC New Market Substation (at the intersection of 250th St. E and CSAH 23) south along CSAH 23 for 3.0 miles, then east along CSAH 86 for 0.9 mile, then south along Halstad Avenue for about 1.5 miles to the Xcel Energy Veseli Breaker Station.

The identified route widths will provide the Permittee with flexibility for minor adjustments of the alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

3.1 Right-of-Way

The approved right-of-way width for the project is up to 70 feet. This permit anticipates that the right-of-way will generally conform to the alignment identified on the attached route permit maps unless changes are requested by individual landowners and agreed to by the Permittee or for unforeseen conditions that are encountered or are otherwise provided for by this permit.

Any right-of-way modifications within the designated route shall be located so as to have comparable overall impacts relative to the factors in Minn. R. 7850.4100, as does the right-of-way identified in this permit, and shall be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 8.1 of this permit. Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minn. R. 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT) rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

4.0 GENERAL CONDITIONS

The Permittee shall comply with the following conditions during construction of the transmission line and associated facilities over the life of this permit.

4.1 Notification to Landowners

The Permittee shall provide all affected landowners with a copy of this permit and, as a separate information piece, the complaint procedures at the time of the first contact with the landowners after issuance of this permit. The Permittee shall contact landowners prior to entering the property or conducting maintenance along the route.

The Permittee shall work with landowners to locate the high-voltage transmission line to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.2 Construction Practices

The Permittee shall follow those specific construction practices and material specifications described in Great River Energy's Application to the Commission for a route permit for the 115 kV Transmission Line Project in the Elko New Market and Cleary Lake Areas in Scott and Rice Counties, Minnesota, dated June 20, 2013, unless this permit establishes a different requirement in which case this permit shall prevail.

4.2.1 Field Representative

At least 14 days prior to commencing construction, the Permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the Permittee with the responsibility to oversee compliance with the conditions of this permit during construction. This person shall be accessible by telephone during normal business hours throughout right-of-way preparation, construction, cleanup, and restoration.

The field representative's address, phone number, emergency phone number, and email shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The Permittee may change the field representative at any time upon notice to landowners and the Commission.

4.2.2 Employee Training and Education of Permit Terms and Conditions

The Permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.2.3 Public Services, Public Utilities, and Existing Easements

During construction, the Permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services or public utilities occur these would be temporary and the Permittee will restore service promptly. Where any impacts to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The Permittee shall work with the landowners, townships, cities, and counties along the route to accommodate concerns regarding tree clearing, distance from existing structures, drain tiles, pole depth and placement in relationship to existing roads and road expansion plans.

The Permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.4 Temporary Work Space

The Permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Temporary space shall be selected to limit the removal and impacts to vegetation. Temporary easements outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact using the shortest route possible. Construction mats should also be used to minimize impacts on access paths and construction areas.

4.2.5 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minn. R. 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.6 Aesthetics

The Permittee shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance.

Structures shall be placed at a distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

4.2.7 Vegetation Removal and Protection

The Permittee shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and vegetation in areas such as trail and stream crossings where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall growing species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed by the Permittee. The Permittee shall leave undisturbed, to the extent possible, existing low growing species in the right-of-way or replant such species in the right-of-way to blend the difference between the right-of-way and

adjacent areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

4.2.8 Application of Herbicides

The Permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental Protection Agency. Selective foliage or basal application shall be used when practicable. The Permittee shall contact the landowner or his designee to obtain approval for the use of herbicide prior to any application on their property. The landowner may request that there be no application of herbicides on any part of the right-of-way within the landowner's property.

All herbicides shall be applied in a safe and cautious manner so as not to damage crops, orchards, tree farms, or gardens.

4.2.9 Noxious Weeds

The Permittee shall take all reasonable precautions against the spread of noxious weeds during all phases of construction. When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittee shall select site appropriate seed certified to be free of noxious weeds. To the extent possible, the Permittee shall use native seed mixes. The Permittee shall consult with landowners on the selection and use of seed for replanting.

4.2.10 Site Sediment and Erosion Control

The Permittee shall implement those erosion prevention and sediment control practices recommended by the Minnesota Pollution Control Agency (MPCA) Construction Stormwater Program.

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil stockpiles, and controlling vehicle tracking. Contours shall be graded as required so that all surfaces provide for proper drainage, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation and prevent erosion. All areas disturbed during construction of the facilities shall be returned to pre-construction conditions.

Where larger areas of one acre or more are disturbed or other areas designated by the MPCA, the Permittee shall obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater permit from the MPCA.

4.2.11 Wetlands and Water Resources

Wetland impact avoidance measures that shall be implemented during design and construction of the transmission line will include spacing and placing the power poles at variable distances to span and avoid wetlands, watercourses, and floodplains. Unavoidable wetland impacts as a result of the placement of poles shall be limited to the immediate area around the poles. To minimize impacts, construction in wetland areas shall occur during frozen ground conditions. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area.

Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts. No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. Power pole structures shall be assembled on upland areas before they are brought to the site for installation.

Areas disturbed by construction activities shall be restored to pre-construction conditions. Restoration of the wetlands will be performed by Permittee in accordance with the requirements of applicable state and federal permits or laws and landowner agreements.

All requirements of the U.S. Army Corps of Engineers (wetlands under federal jurisdiction), Minnesota Department of Natural Resources (Public Waters/Wetlands), and County (wetlands under the jurisdiction of the Minnesota Wetland Conservation Act) shall be met.

4.2.12 Archaeological and Historic Resources

The Permittee shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. The Permittee shall consult with the Minnesota State Historic Preservation Office (SHPO) prior to commencing construction to determine whether an archaeological survey will be necessary for any length of the transmission line route.

In the event that a resource is encountered, the Permittee shall contact and consult with SHPO. The Permittee shall not excavate at such locations until authorization is provided by SHPO. Where feasible, avoidance of the resource is required. Where not feasible, mitigation must include an effort to minimize project impacts on the resource consistent with SHPO and State Archaeologist requirements. If human remains are encountered during construction, the Permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the State Archaeologist.

Prior to construction, workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction.

4.2.13 Avian Mitigation

The Permittee's standard transmission design shall incorporate adequate spacing of conductors and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

The Permittee will consult with the Minnesota Department of Natural Resources regarding type and placement of bird diverters.

4.2.14 Restoration

The Permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line. Within 60 days after completion of all restoration activities, the Permittee shall advise the Commission in writing of the completion of such activities.

4.2.15 Cleanup

All waste and scrap that is the product of construction shall be removed from the right-of-way and all premises on which construction activities were conducted and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.16 Pollution and Hazardous Wastes

All appropriate precautions to protect against pollution of the environment must be taken by the Permittee. The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean up and disposal of all wastes generated during construction and restoration of the right-of-way.

4.2.17 Damages

The Permittee shall fairly compensate landowners for damage to crops, fences, private roads and lanes, landscaping, drain tile, or other damages sustained during construction.

4.3 Electrical Performance Standards

4.3.1 Grounding

The Permittee shall design, construct, and operate the transmission line in a manner so that the maximum induced steady-state short-circuit current shall be limited to five milliamperes root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short-circuit current between ground and the object so as not to exceed one milliamperes rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The Permittee shall address and rectify any induced current problems that arise during transmission line operation.

4.3.2 Electric Field

The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

4.3.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the Permittee shall take whatever action is feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

4.4 Other Requirements

4.4.1 Applicable Codes

The Permittee shall comply with applicable NERC planning standards and requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of way widths, erecting power poles, and stringing of transmission line conductors.

4.4.2 Other Permits and Regulations

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of these permits. A list of the permits known to be required is included in the permit application. The Permittee shall submit a copy of such permits to the Commission upon request.

5.0 SPECIAL CONDITIONS

The Permittee shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following special conditions. Special conditions shall take precedence over other conditions of this permit should there be a conflict.

5.1.1 Coordination with Scott County

The Permittee shall coordinate with Scott County and report any proposed changes to the Project alignment as a result of Scott County's design and easement acquisition process for its planned upgrades of County Road 27 and of 250th Street.

5.1.2 Avian Mitigation Plan

The Permittee shall develop an Avian Mitigation Plan for construction of the Project, including bird flight diverter locations as specified in Appendix A of the Environmental Assessment, and allow the Minnesota Department of Natural Resources (MnDNR) an opportunity to comment on the plan before the Permittee submits the plan with its plan and profile compliance filing.

5.1.3 Coordination with Three Rivers Park District

The Permittee shall work with Three Rivers Park District (TRPD) throughout the construction process to develop a phased vegetation removal plan to be implemented by the Permittee and a TRPD replanting plan that will include species compatible with the safe operation and maintenance of the 115 kV transmission line. The results of these discussions should be reflected in a Vegetation Management Plan for construction of the Project through the TRPD properties.

5.1.4 Protection of Northern Long-Eared Bat

The Permittee shall complete tree clearing for the Project before that time the Northern Long-Eared Bat is listed under the Endangered Species Act (ESA). If tree clearing occurs after the Northern Long-Eared Bat is listed under the ESA, the tree clearing shall be completed between October 1 to March 31. If tree clearing cannot be completed during this timeframe, the Permittee shall consult with the U.S. Fish and Wildlife Service.

5.1.5 Coordination with Minnesota Department of Agriculture

The Permittee shall work with the Minnesota Department of Agriculture (MDA) to determine what, if any, mitigation measures beyond normal construction protocol are necessary to minimize further impact of the Project on agricultural lands.

5.1.6 Coordination with Minnesota Department of Natural Resources

The Permittee shall coordinate with the MnDNR regarding rare species, including whether further surveys are necessary. Specifically, the Permittee shall coordinate with the MNDNR regarding Blanding's Turtles prior to construction in wetlands.

5.1.7 Wildlife-Friendly Erosion Control Materials

The Permittee, in cooperation with the Minnesota Department of Natural Resources, shall use wildlife-friendly erosion control materials in areas known to be inhabited by wildlife species (birds, small mammals, reptiles, and amphibians) susceptible to entanglement in plastic netting¹.

5.1.8 Rare and Unique Resources

The Permittee shall follow measures and recommendations for avoiding and minimizing impacts to Blanding's turtle populations as outlined in the Minnesota Department of Natural Resources Environmental Review Fact Sheet Series for the Blanding's Turtle². Construction and maintenance personnel will be made aware of rare resources and plant communities during pre-construction meetings to minimize potential disturbance. The Permittee shall avoid impacts to state-listed endangered, threatened, and special concern species in all areas of the project including temporary workspaces associated with the project.

6.0 DELAY IN CONSTRUCTION

If the Permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit the Permittee shall file a report on the failure to construct and the Commission shall consider suspension of the permit in accordance with Minn. R. 7850.4700.

7.0 COMPLAINT PROCEDURES

Prior to the start of construction, the Permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures attached to this permit.

Upon request, the Permittee shall assist the Commission with the disposition of unresolved or longstanding complaints. This assistance shall include, but is not limited to, the submittal of complaint correspondence and complaint resolution efforts.

¹ <http://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf>

² http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf

8.0 COMPLIANCE REQUIREMENTS

Failure to timely and properly make compliance filings required by this permit is a failure to comply with the conditions of this permit. Compliance filings must be electronically filed with the Commission.

8.1 Plan and Profile

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the Permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, structure specifications and locations, cleanup, and restoration for the transmission line.

The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per this permit.

The Permittee may not commence construction until the 30 days has expired or until the Commission has advised the Permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the Permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

8.2 Periodic Status Reports

The Permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittee need not report more frequently than monthly.

8.3 Completion of Construction

8.3.1 Notification to Commission

At least three days before the line is to be placed into service, the Permittee shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

8.3.2 As-Builts

Within 60 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the project.

8.3.3 GPS Data

Within 60 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (e.g., ArcGIS compatible map files, GPS coordinates, associated database of characteristics) for all structures associated with the transmission line and each substation connected.

9.0 PERMIT AMENDMENT

This permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment.

The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the conditions after affording the Permittee and interested persons such process as is required.

10.0 TRANSFER OF PERMIT

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer.

The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new Permittee, and interested persons such process as is required.

11.0 REVOCATION OR SUSPENSION OF PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minn. R. 7850.5100, to revoke or suspend the permit.

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
HIGH-VOLTAGE TRANSMISSION LINES**

A. Purpose

To establish a uniform and timely method of reporting complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup and restoration, operation, and resolution of such complaints.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 7829.1700 relevant to this permit.

D. Definitions

Complaint: A verbal or written statement presented to the permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittee and a person, remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing

1. The permittee shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.
2. A person presenting the complaint should to the extent possible, include the following information in their communications:
 - a. name, address, phone number, and email address;
 - b. date of complaint;
 - c. tract or parcel number; and
 - d. whether the complaint relates to a permit matter or a compliance issue.
3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
 - a. docket number and project name;
 - b. name of complainant, address, phone number and email address;
 - c. precise description of property or parcel number;
 - d. name of permittee representative receiving complaint and date of receipt;
 - e. nature of complaint and the applicable permit condition(s);
 - f. activities undertaken to resolve the complaint; and
 - g. final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit. The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Consumer Affairs Office at 1-800-657-3782 (voice messages are acceptable) or consumer.puc@state.mn.us. For e-mail reporting, the email subject line should read "PUC EFP Complaint" and include the appropriate project docket number.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>

If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

G. Complaints Received by the Commission

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

H. Commission Process for Unresolved Complaints

Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and appropriate persons if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten (10) days after receipt of the staff notification. The complaint will be presented to the Commission for a decision as soon as practicable.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may be filed by mail or email to:

Carole L. Schmidt
Great River Energy
Supervisor, Transmission Permitting and Compliance
12300 Elm Creek Blvd.
Maple Grove, MN 55369
763-445-5214
cschmidt@grenergy.com

This information shall be maintained current by informing the Commission of any changes by eFiling, as they become effective.

**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE FOR
PERMITTED ENERGY FACILITIES**

A. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

B. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

C. Definitions

Compliance Filing: A filing of information to the Commission, where the information is required by a Commission site or route permit.

D. Responsibilities

1. The permittee shall eFile all compliance filings with Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at: <https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the eDockets website. Permittees must register on the website to eFile documents.

2. All filings must have a cover sheet that includes:
 - a. Date
 - b. Name of submitter/permittee
 - c. Type of permit (site or route)
 - d. Project location
 - e. Project docket number
 - f. Permit section under which the filing is made
 - g. Short description of the filing

3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being eFiled, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any eFiled document.

PERMIT COMPLIANCE FILINGS¹

PERMITTEE: Great River Energy

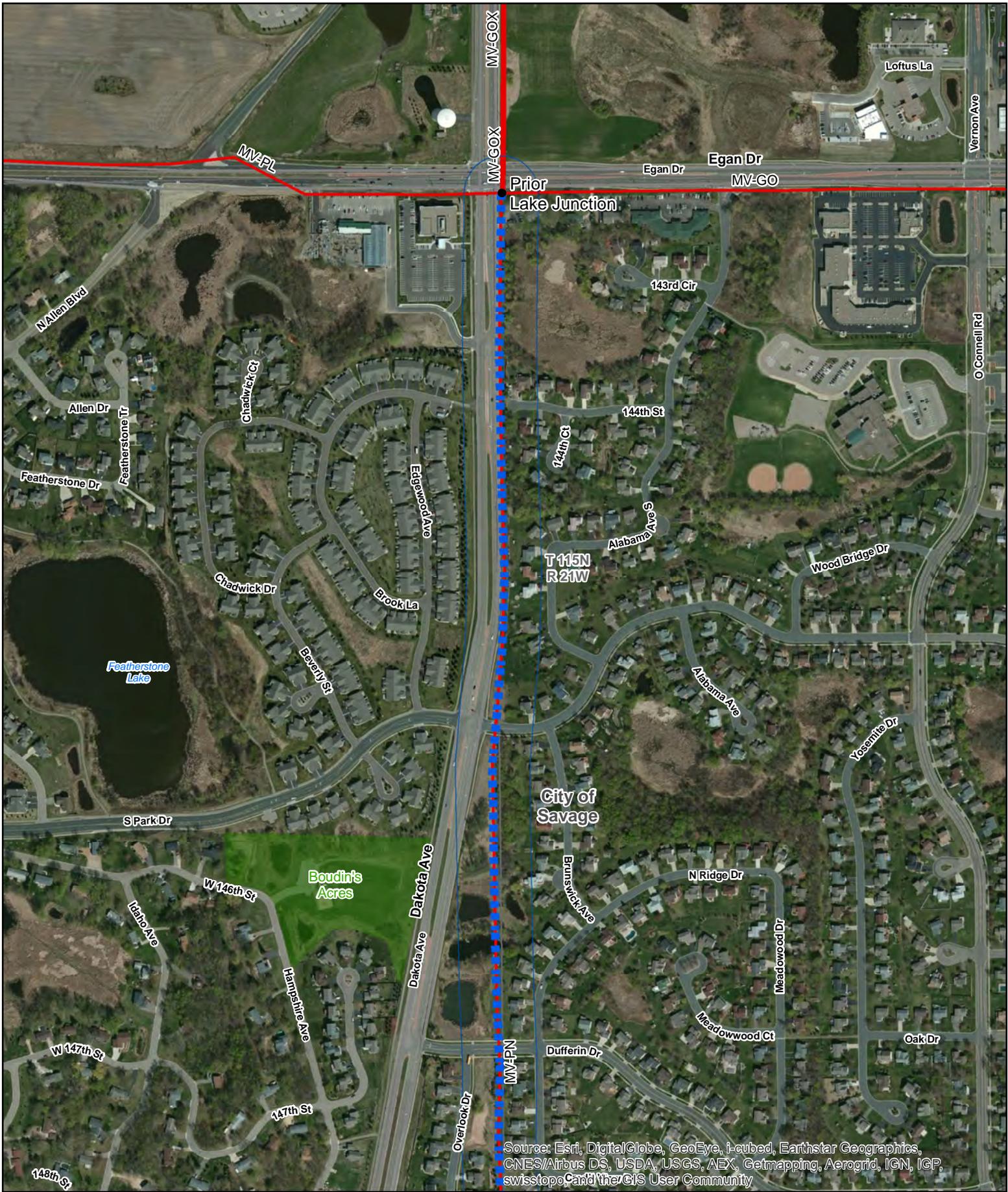
PERMIT TYPE: HVTL Route Permit

PROJECT LOCATION: Scott and Rice Counties

PUC DOCKET NUMBER: ET002/TL12-1245

Filing Number	Permit Section	Description of Compliance Filing	Due Date
1	8.1	Plan and profile of right-of-way (ROW)	30 days before ROW preparation for construction
2	4.2.1	Contact information for field representative	14 days prior to construction
3	4.2.14	Restoration complete	60 days after completion of all restoration activities
4	8.2	Periodic status reports	Monthly
5	7.0	Complaint procedures	Prior to start of construction
6	Complaint Handling Procedures	Complaint reports	By the 15 th of each month
7	4.1	Notification to landowners	First contact with landowners after permit issuance
8	8.3.1	Notice of completion and date of placement in service	Three days prior to energizing
9	8.3.2	Provide as-built plans and specifications	Within 60 days after completion of construction
10	8.3.3	Provide GPS data	Within 60 days after completion of construction
11	4.2.12	Notification of previously unrecorded archaeological sites	Upon discovery

¹ This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. It is not a substitute for the permit; the language of the permit controls.



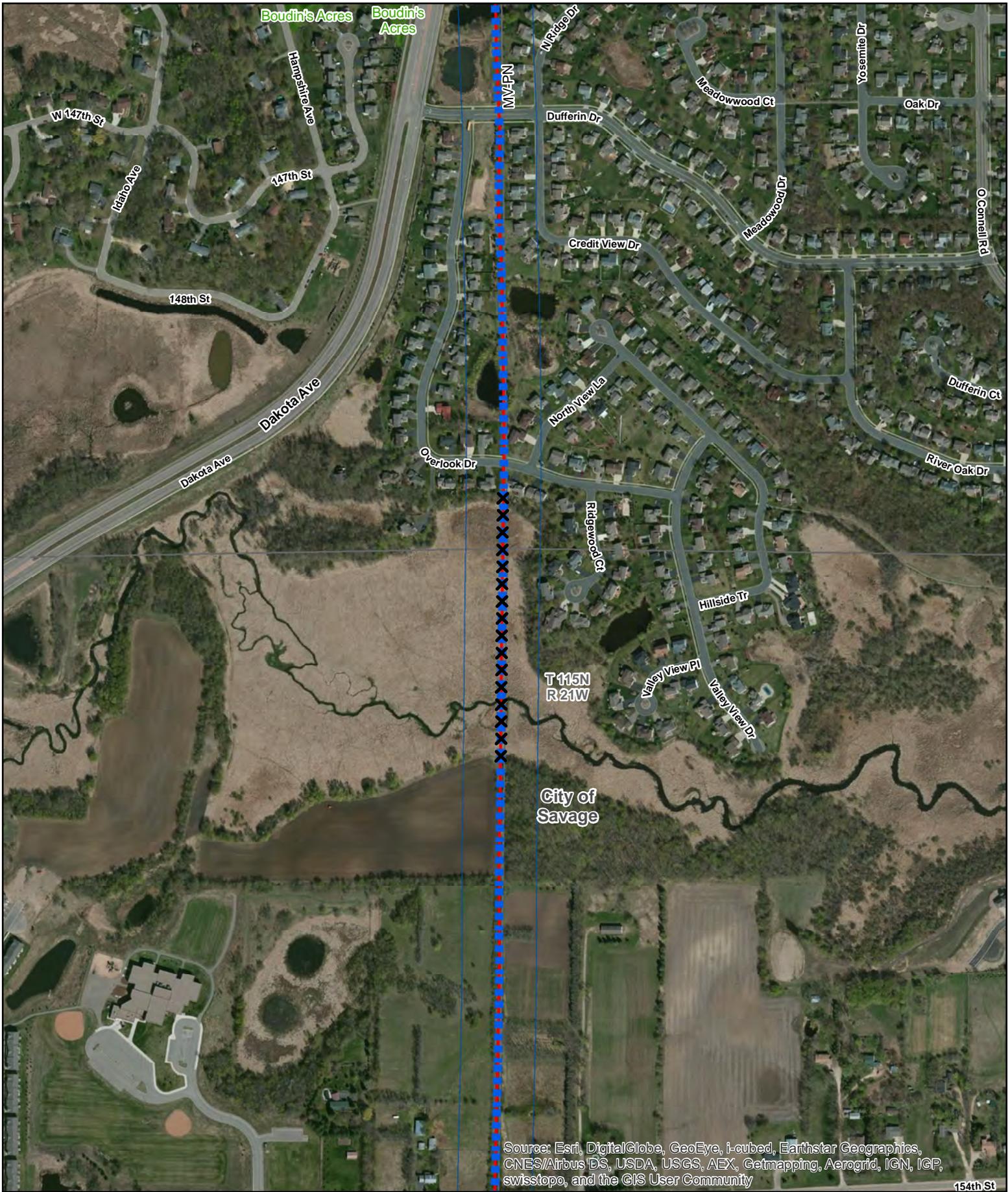
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-PN North Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- Park

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

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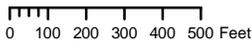
**Elko New Market and
 Cleary Lake Areas Project
 Prior Lake Junction to
 Credit River Junction
 Map Series 1 of 5**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

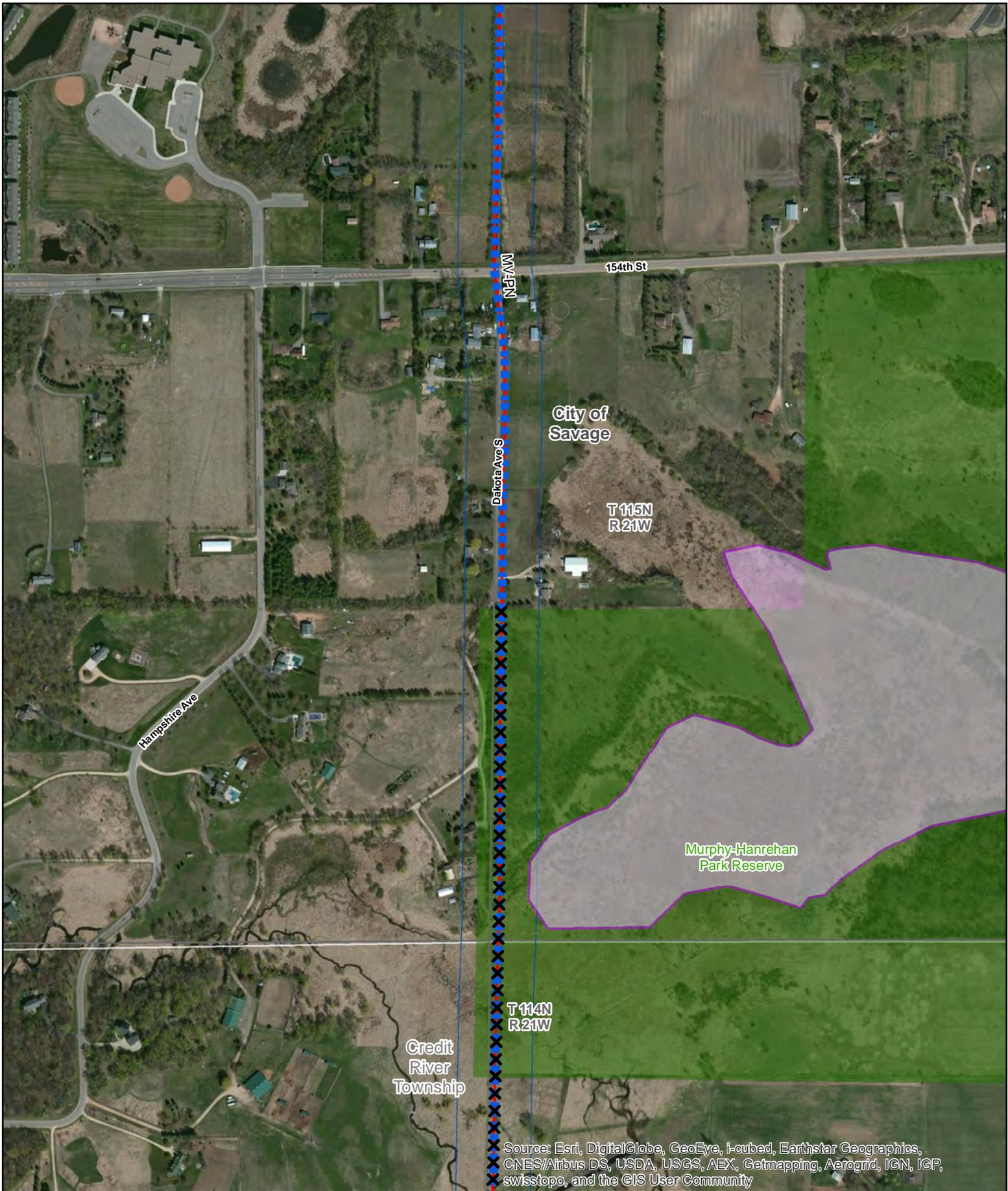
- Proposed Great River Energy 115 kV Transmission Line
- MV-PN North Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- Potential Bird Diverter Locations
- Park

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project
 Prior Lake Junction to
 Credit River Junction
 Map Series 2 of 5**

154th St



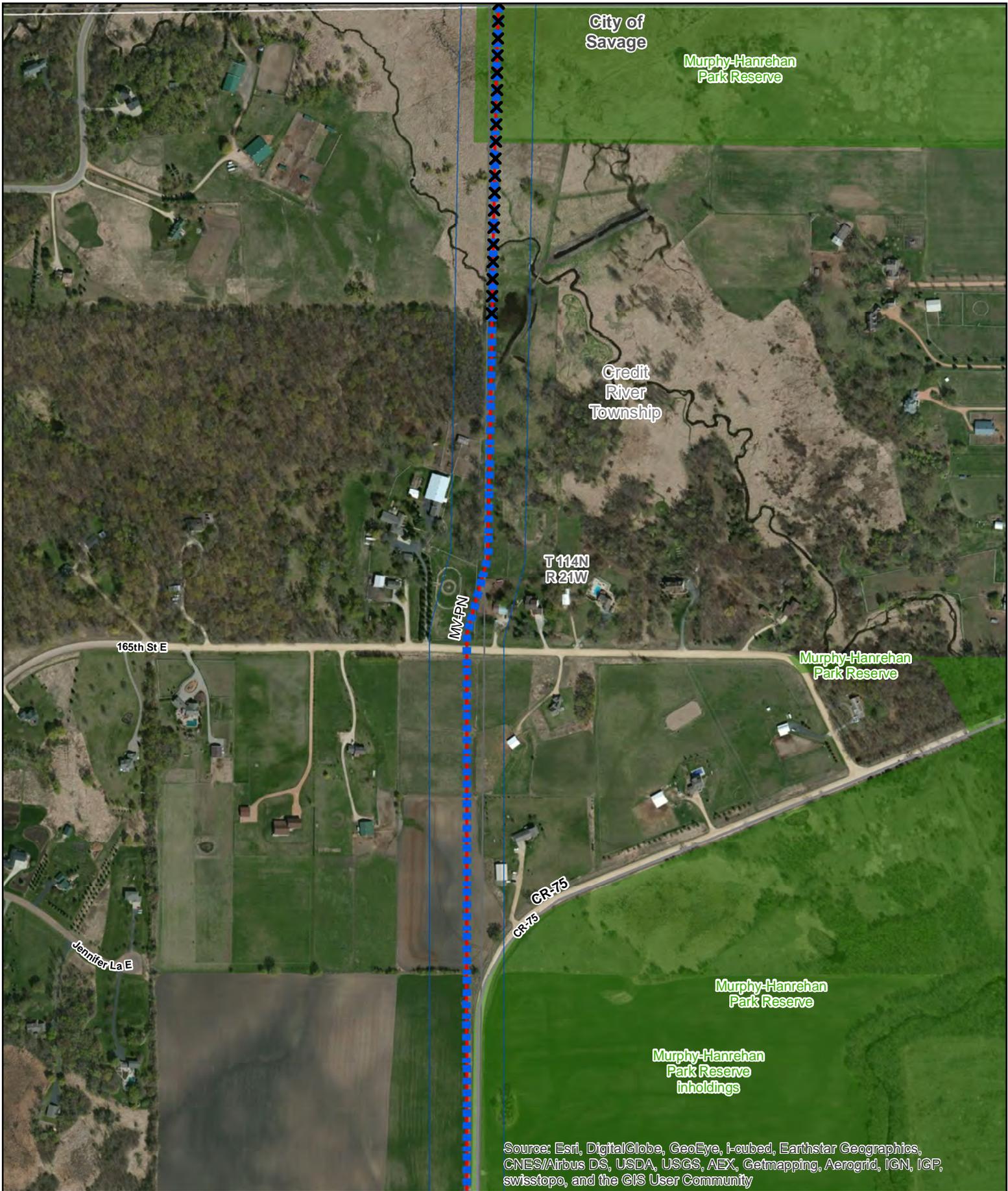
- Proposed Great River Energy 115 kV Transmission Line
- MV-PN North Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- Potential Bird Diverter Locations
- Park
- Biodiversity Significance
- Outstanding

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Prior Lake Junction to
 Credit River Junction
 Map Series 3 of 5**

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics,
 CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP,
 swisstopo, and the GIS User Community



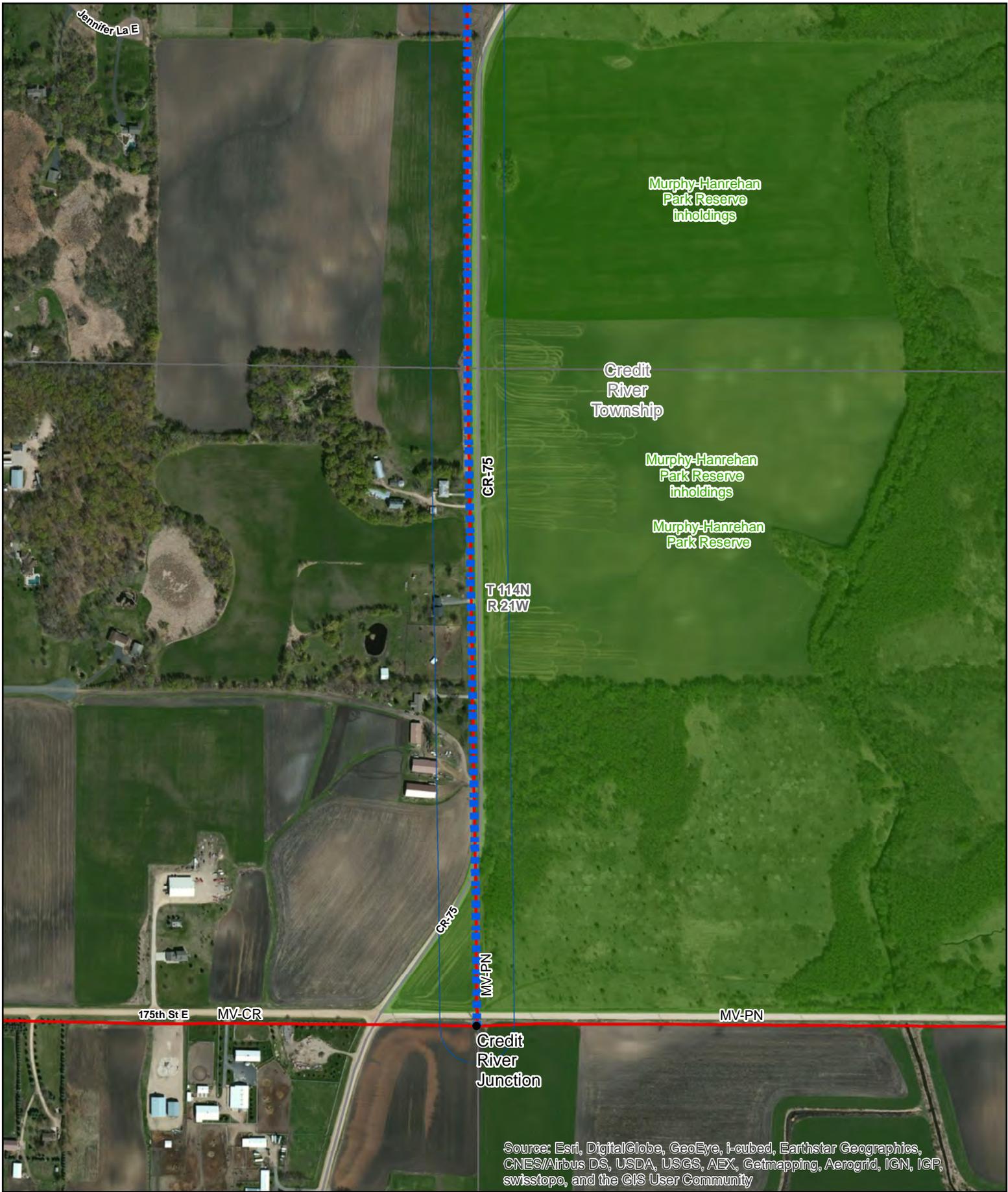
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-PN North Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- Potential Bird Diverter Locations
- Park

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Prior Lake Junction to
 Credit River Junction
 Map Series 4 of 5**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN North Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width
- Park

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

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**Elko New Market and
 Cleary Lake Areas Project
 Prior Lake Junction to
 Credit River Junction
 Map Series 5 of 5**



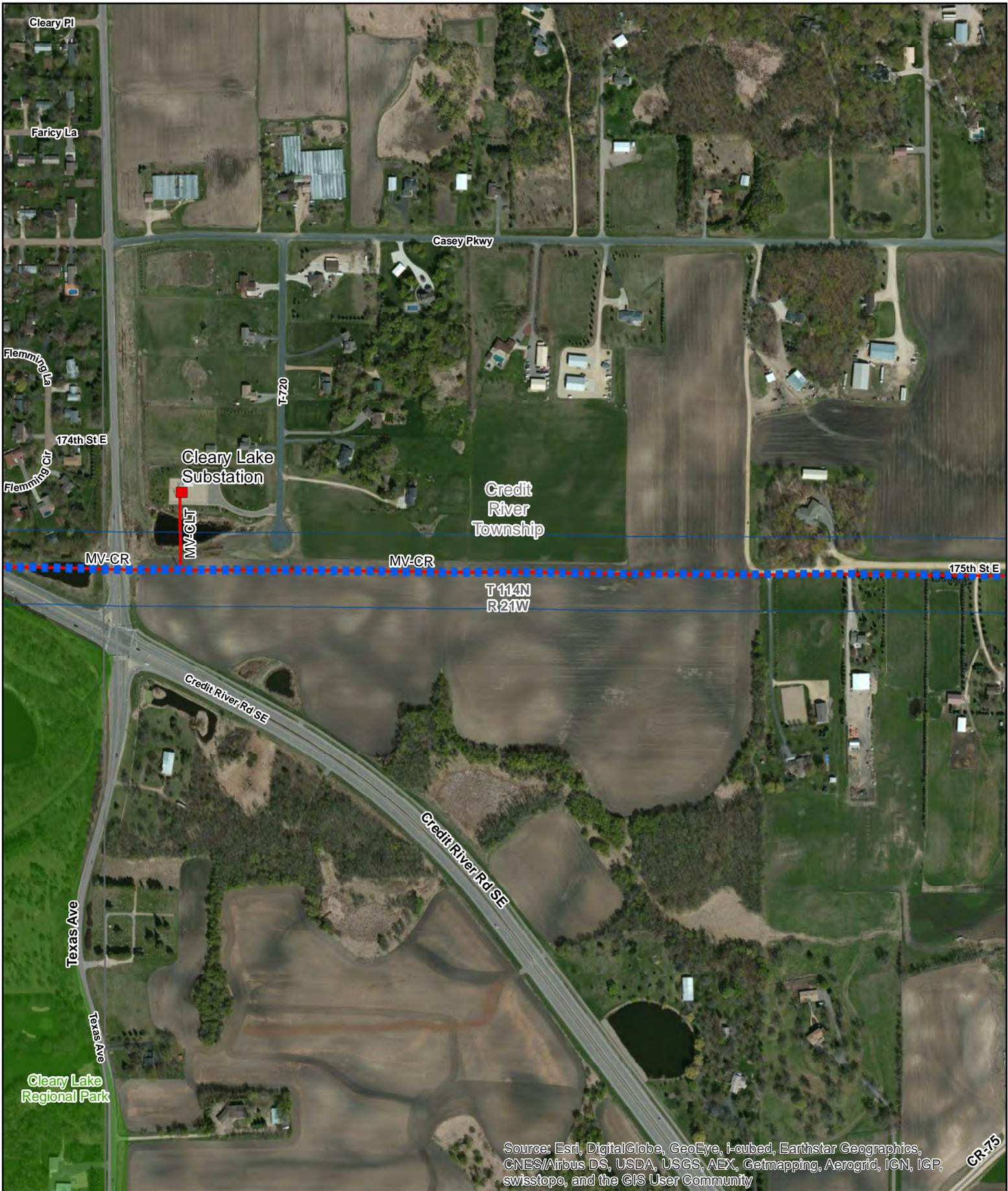
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- Proposed Great River Energy
115 kV Transmission Line
- MV-CR Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width
- Park

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Credit River Junction to
 Credit River Substation
 Map Series 1 of 4**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

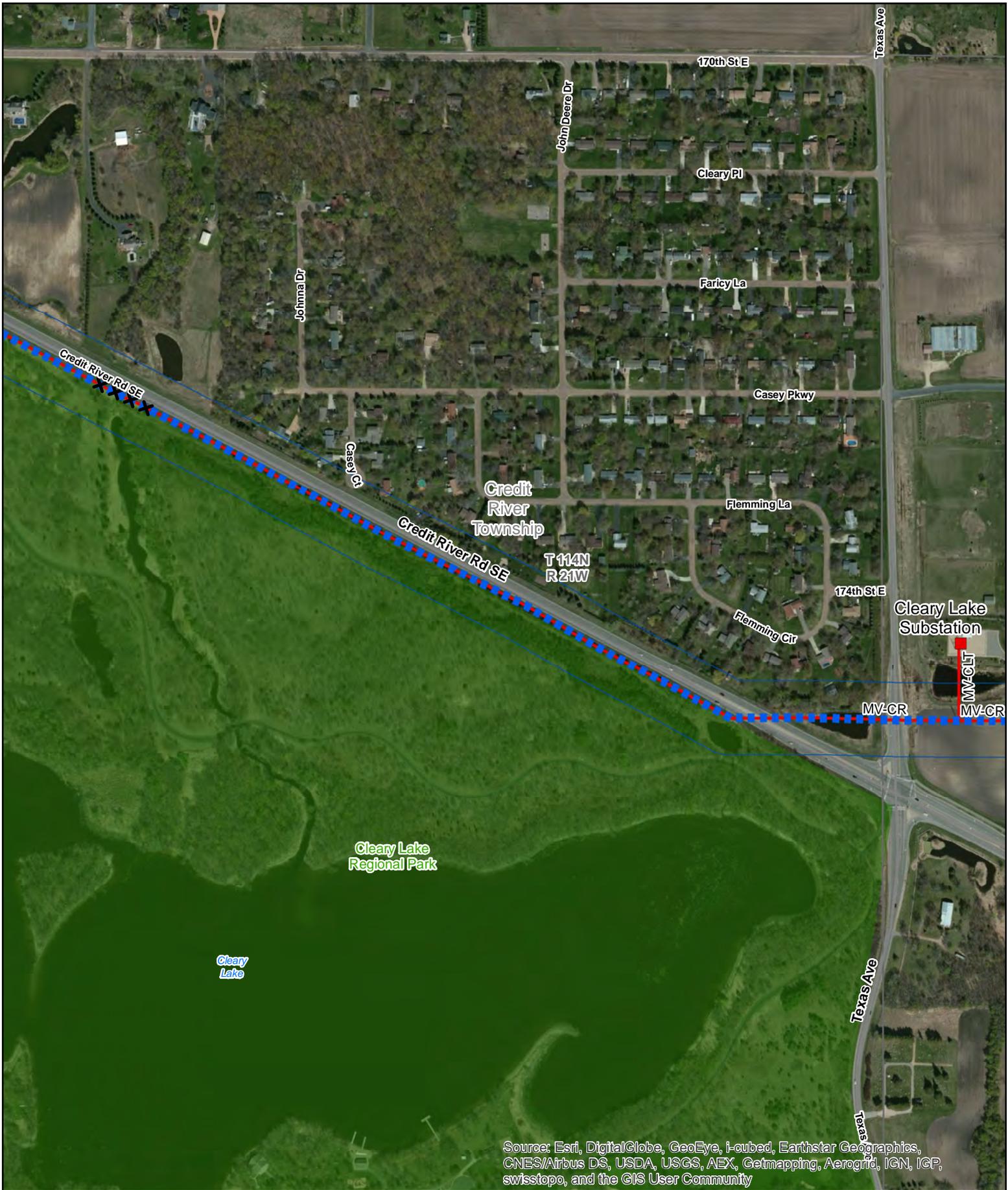
- Proposed Great River Energy 115 kV Transmission Line
- MV-CR Segment
- Existing Cooperative
- Distribution Substation
- Existing Great River Energy
- 69 kV Transmission Line
- 300' route width
- Park

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Credit River Junction to
 Credit River Substation
 Map Series 2 of 4**

CR-75



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-CR Segment
- Existing Cooperative Distribution Substation
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- Potential Bird Diverter Locations
- Park

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Credit River Junction to
 Credit River Substation
 Map Series 3 of 4**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-CR Segment
- Existing Great River Energy 69 kV Transmission Line
- Existing Xcel Energy 69 kV Transmission Line
- Distribution Substation
- 300' route width
- XX Potential Bird Diverter Locations
- Park

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 Credit River Junction to
 Credit River Substation
 Map Series 4 of 4**



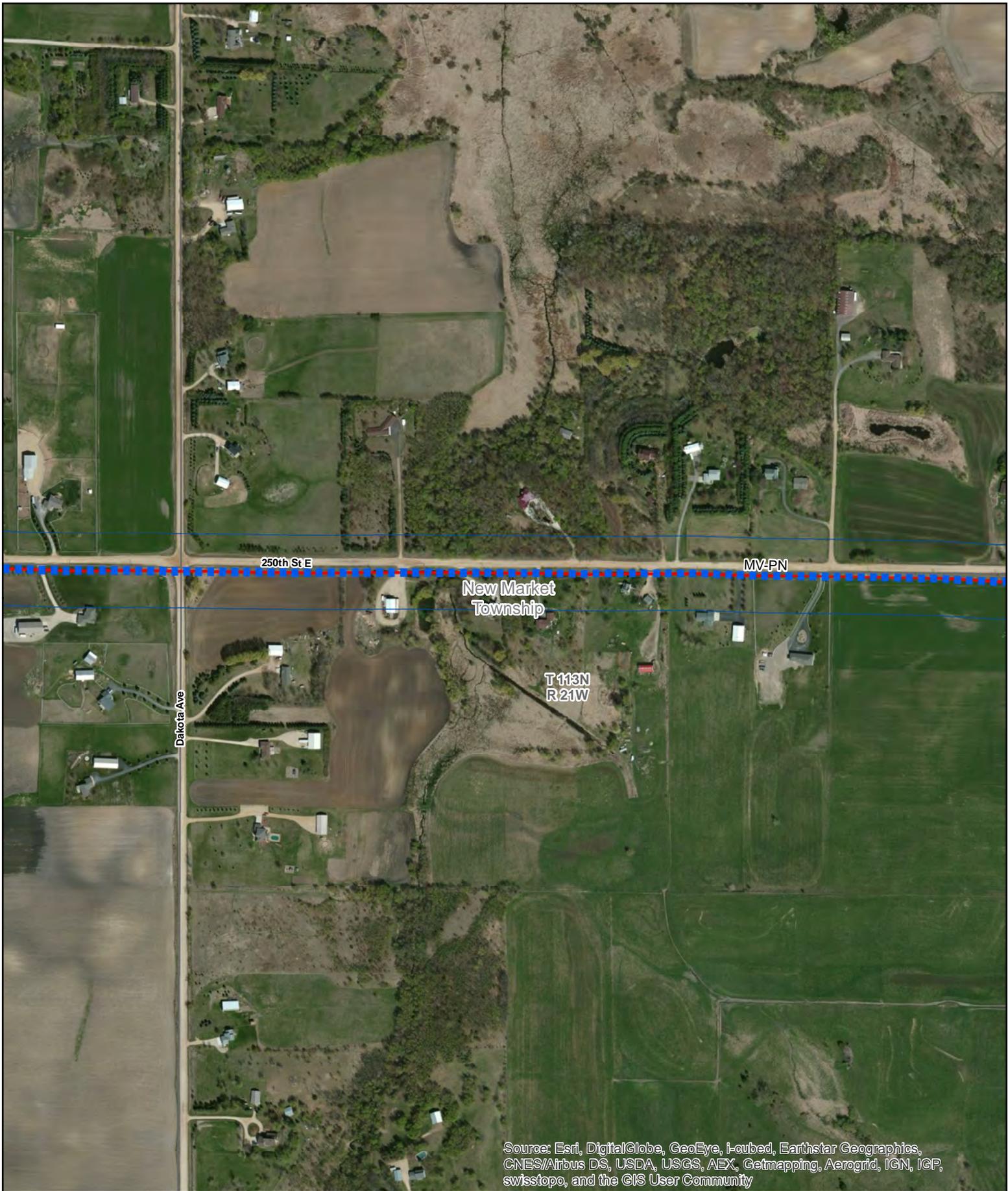
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN South Segment
Existing Cooperative
- Distribution Substation
- Existing Great River Energy
- 69 kV Transmission Line
- 300' route width

N
 GIS Data sources include:
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 and Great River Energy.
 Aerial Imagery from ESRI web service

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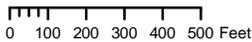
**Elko New Market and
 Cleary Lake Areas Project**
**245th Street to
 New Market Substation**
Map Series 1 of 9



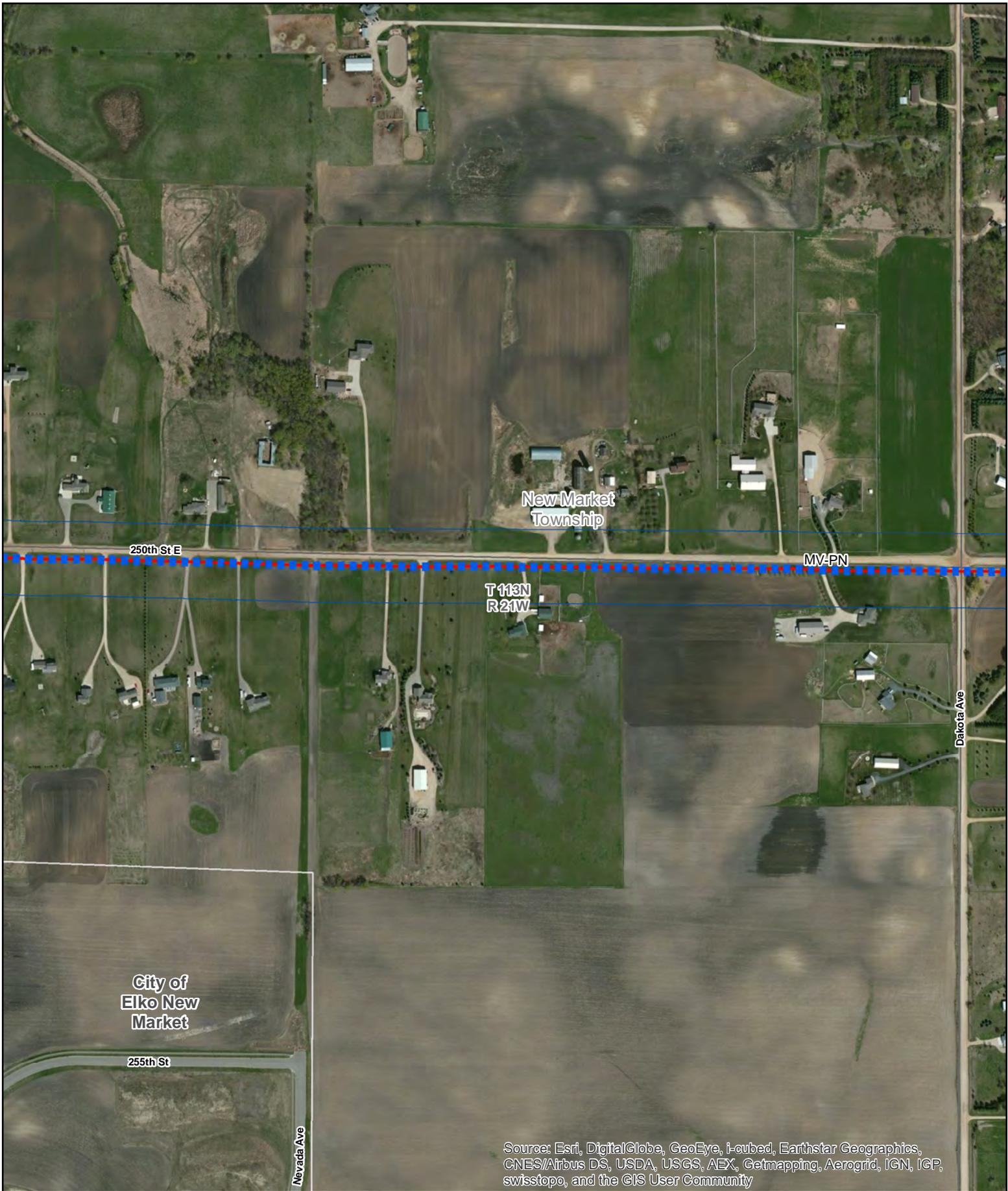
Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width

 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project
 245th Street to
 New Market Substation
 Map Series 2 of 9**



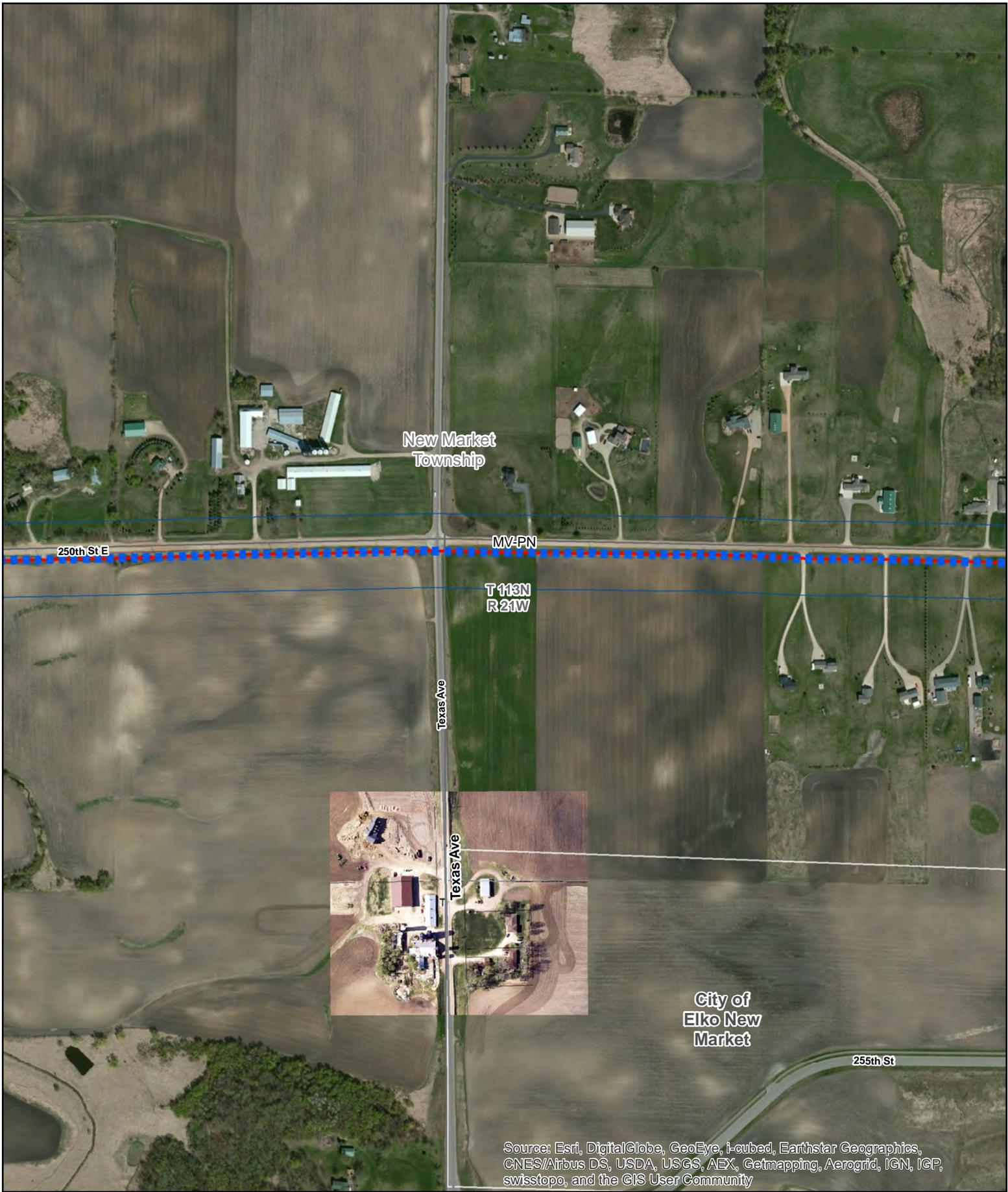
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

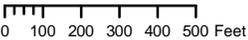
**Elko New Market and
 Cleary Lake Areas Project
 245th Street to
 New Market Substation
 Map Series 3 of 9**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width

GIS Data sources include:
MNGEO, MNDNR, MNDOT,
and Great River Energy.
Aerial Imagery from ESRI web service



**Elko New Market and
Cleary Lake Areas Project
245th Street to
New Market Substation
Map Series 4 of 9**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- XX Potential Bird Diverter Locations
- MV-PN South Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 245th Street to
 New Market Substation
 Map Series 5 of 9**



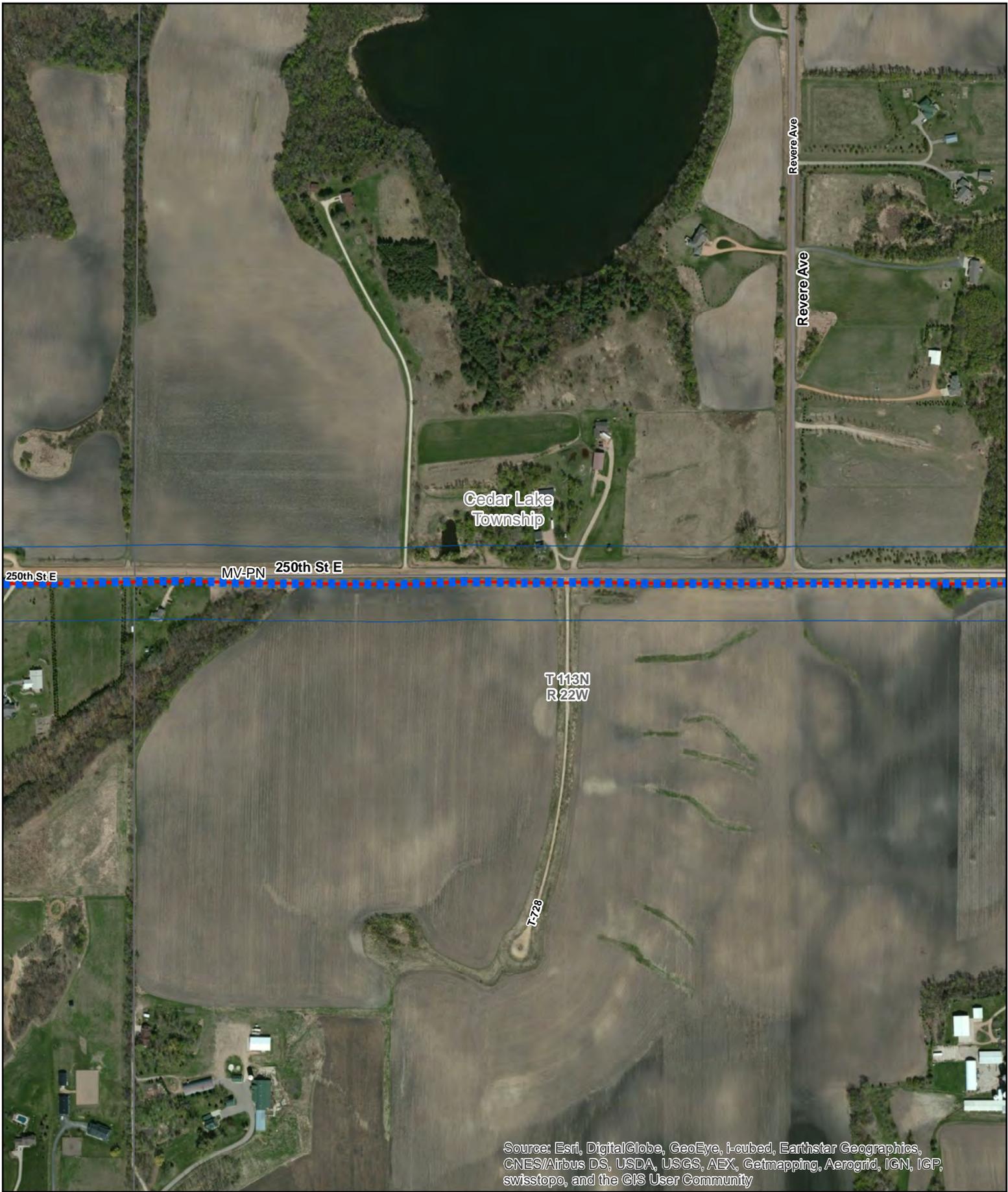
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy 69 kV Transmission Line
- 300' route width
- 500' route width portion
- XX Potential Bird Diverter Locations

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 245th Street to
 New Market Substation
 Map Series 6 of 9**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

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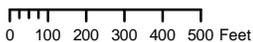
**Elko New Market and
 Cleary Lake Areas Project**
**245th Street to
 New Market Substation**
Map Series 7 of 9



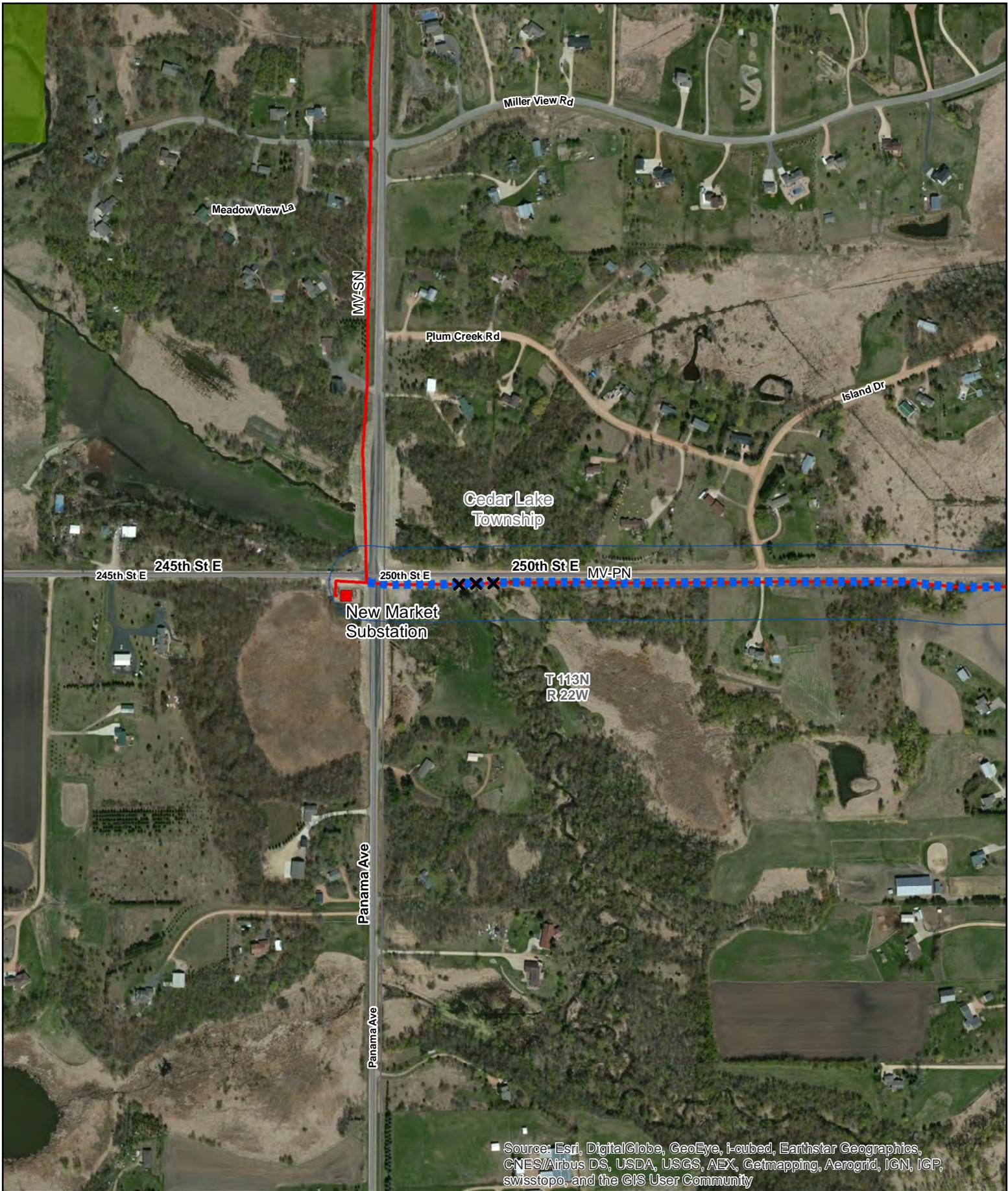
Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- MV-PN South Segment
- Existing Great River Energy
69 kV Transmission Line
- 300' route width

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project**
**245th Street to
 New Market Substation**
Map Series 8 of 9



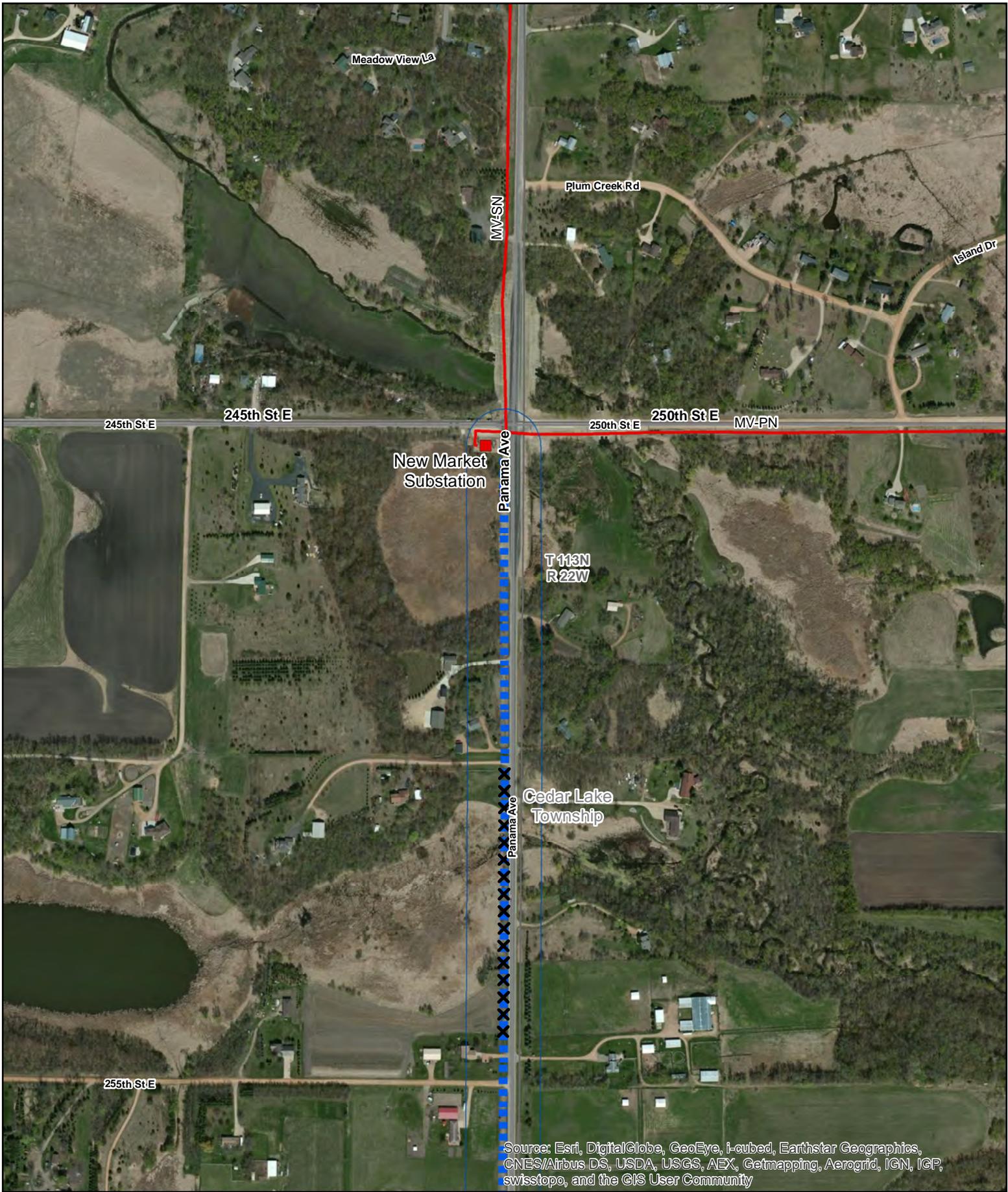
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- MV-PN South Segment
- Existing Cooperative
- Distribution Substation
- Existing Great River Energy
- 69 kV Transmission Line
- 300' route width
- XX Potential Bird Diverter Locations

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 245th Street to
 New Market Substation
 Map Series 9 of 9**



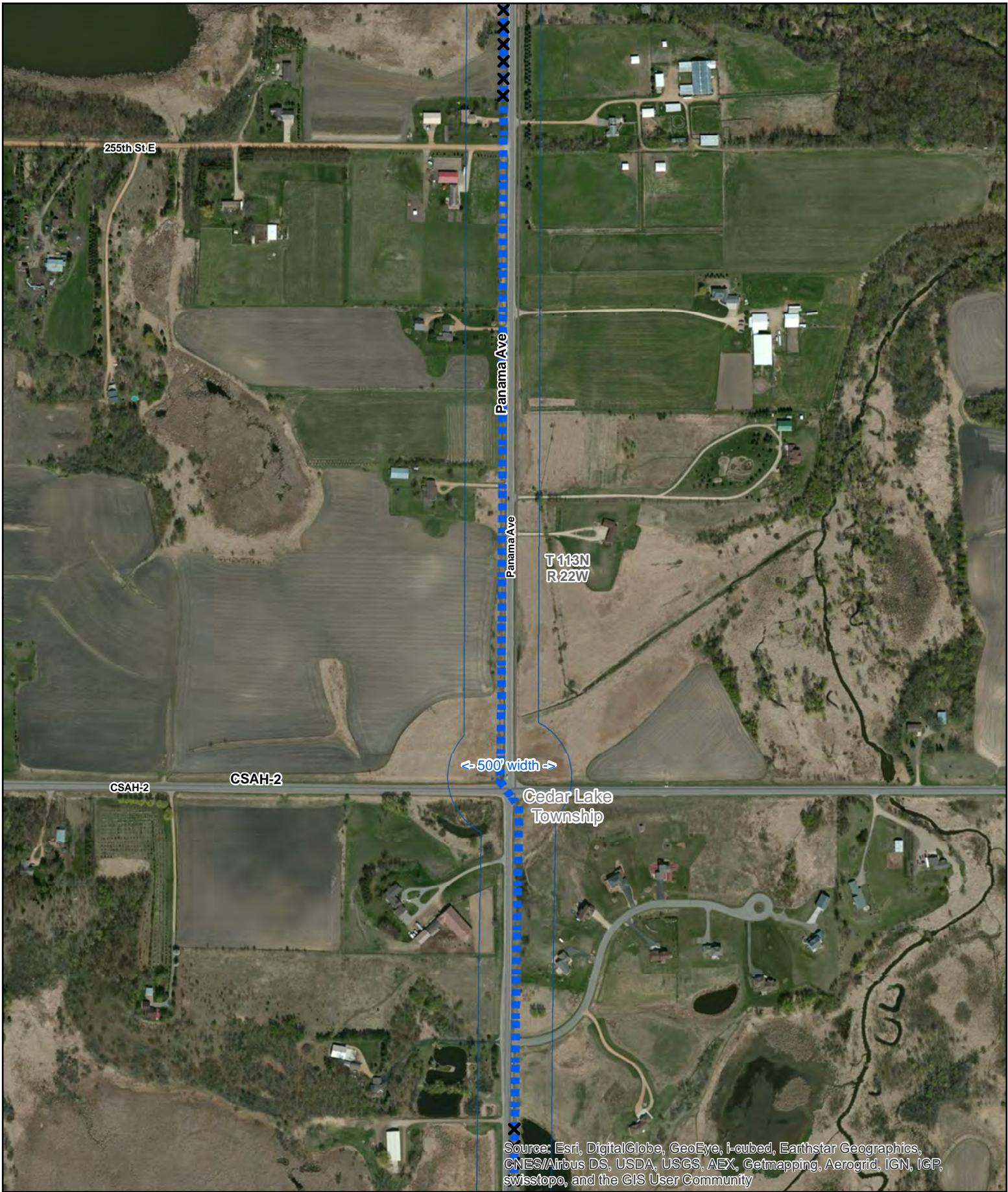
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy 115 kV Transmission Line
- West Segment
- Existing Cooperative
- Distribution Substation
- Existing Great River Energy
- 69 kV Transmission Line
- 300' route width
- XX Potential Bird Diverter Locations

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

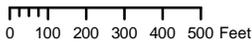
**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 1 of 9**



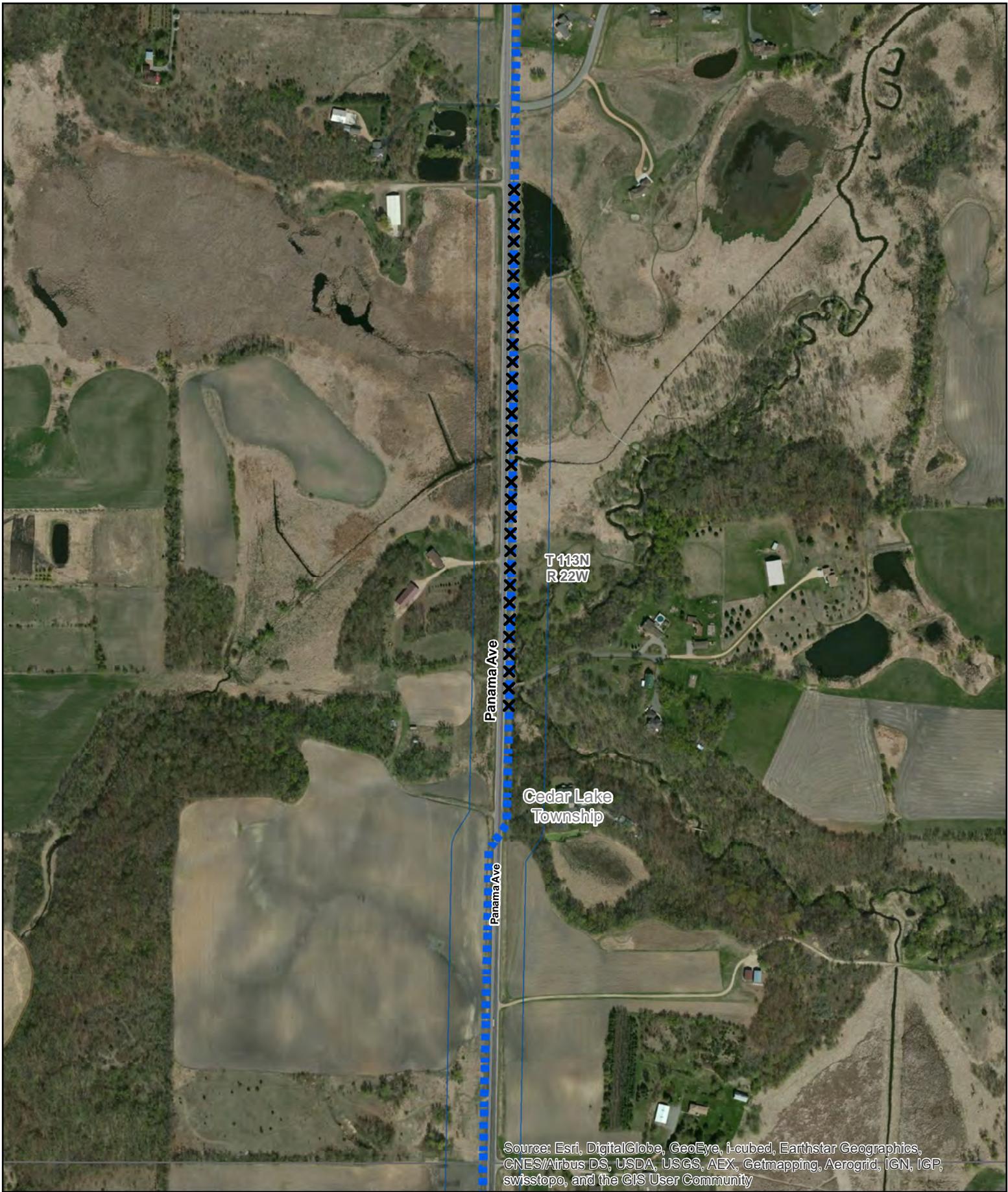
Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy 115 kV Transmission Line
 XX Potential Bird Diverter Locations
 West Segment
 300' route width
 500' route width portion

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 2 of 9**



Proposed Great River Energy 115 kV Transmission Line
 ■ West Segment
 □ 300' route width

XX Potential Bird Diverter Locations
 Biodiversity Significance
 Below

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

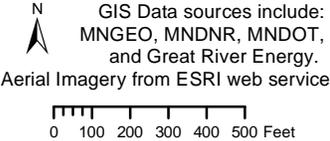
**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 3 of 9**



Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy 115 kV Transmission Line
 ■ West Segment
 □ 300' route width

XX Potential Bird Diverter Locations
 Biodiversity Significance
 ■ Below
 ■ Waterfowl Production Area



**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 4 of 9**



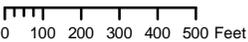
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy 115 kV Transmission Line
 West Segment
 300' route width



Potential Bird Diverter Locations
 Waterfowl Production Area

GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 5 of 9**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy
115 kV Transmission Line
■ West Segment
 300' route width

GIS Data sources include:
MNGEO, MNDNR, MNDOT,
and Great River Energy.
Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

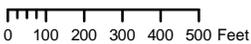
**Elko New Market and
Cleary Lake Areas Project
New Market Substation to
Veseli Breaker Station (West Option)
Map Series 6 of 9**



Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy
115 kV Transmission Line
■ West Segment
 300' route width

GIS Data sources include:
MNGEO, MNDNR, MNDOT,
and Great River Energy.
Aerial Imagery from ESRI web service



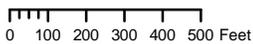
**Elko New Market and
Cleary Lake Areas Project
New Market Substation to
Veseli Breaker Station (West Option)
Map Series 7 of 9**



Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Proposed Great River Energy
115 kV Transmission Line
 West Segment
 300' route width

 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service



**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 8 of 9**



Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- Proposed Great River Energy
115 kV Transmission Line
- West Segment
- Existing Great River Energy
69 kV Transmission Line
- Proposed Xcel Energy
69 kV Breaker Station

- Existing Xcel Energy
69 kV Transmission Line
- 200' route width

N
 GIS Data sources include:
 MNGEO, MNDNR, MNDOT,
 and Great River Energy.
 Aerial Imagery from ESRI web service

0 100 200 300 400 500 Feet

**Elko New Market and
 Cleary Lake Areas Project
 New Market Substation to
 Veseli Breaker Station (West Option)
 Map Series 9 of 9**