

STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

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| In the Matter of the Application for a Route Permit for the Mud Lake to Wilson Lake 115kV High Voltage Transmission Line Project | FINDINGS OF FACT, CONCLUSIONS AND ORDER ISSUING A ROUTE PERMIT TO GREAT RIVER ENERGY FOR THE MUD LAKE TO WILSON LAKE 115 kV TRANSMISSION LINE PROJECT AND ASSOCIATED FACILITIES MPUC DOCKET NO. ET-2/TL-06-980 |
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The above-captioned matter came before the Minnesota Public Utilities Commission (PUC) on January 25, 2007, acting on an application by Great River Energy (GRE or Company) for a Route Permit to construct a new 115 kilovolt (kV) single circuit transmission line, 12 miles in length, and a 4.55 acre expansion of the Wilson Lake Substation in Crow Wing County, Minnesota.

A joint Public Hearing was held on December 13, 2006, at the Garrison Township Hall near Garrison, Minnesota. The hearing was presided over by Judge Eric Lipman, an Administrative Law Judge (ALJ) with the Minnesota Office of Administrative Hearings (OAH). The hearing continued until all persons who desired to speak had done so. The comment period closed on December 26, 2006, at 4:30 p.m.

Appearances: Dan Lipschultz, esq., Moss and Barnett, 4800 Wells Fargo Center, 90 South Seventh Street, Minneapolis, MN 55402, appeared on behalf of the Applicant Great River Energy; Dale Aukee, Dave Kempf, Carole Schmidt, Jim McGuire, and Jerry Ellsworth, each at 17845 East Highway 10, P.O. Box 800, Elk River, Minnesota 55330, appeared on behalf of the Applicant Great River Energy; Adam M. Sokolski, appeared on behalf of the staff of the Minnesota Department of Commerce (DOC) Energy Facility Permitting staff; Bret Eknes, appeared on behalf of the Minnesota Public Utilities Commission (PUC).

STATEMENT OF ISSUE

Should Great River Energy be issued a Route Permit to construct a 12 mile, 115 kV high voltage transmission line (HVTL) from the Mud Lake Substation to the Wilson Lake Substation and expand the Wilson Lake Substation approximately 4.55 acres in Crow Wing County, Minnesota?

If so, which route should be selected for the transmission line and what conditions should be imposed?

Based upon all of the proceedings herein, the Commission makes the following:

FINDINGS OF FACT

The Applicant

1. The Applicant is Great River Energy (GRE), a generation and transmission cooperative serving distribution cooperative customers in Minnesota.

The Project

2. The proposed project consists of the following components, which collectively are referred to as the "Project."

(a) A new 12 mile, single circuit 115 kV transmission line and associated facilities connecting the Mud Lake Substation to the Wilson Lake Substation.

(b) A 4.55 acre expansion of the Wilson Lake Substation to accommodate facilities associated with the new transmission line, and;

(c) Associated facilities required at the Mud Lake Substation to accommodate the new transmission line.

3. The Project will use wood transmission structures (poles) with horizontal post insulators. GRE indicates that its distribution cooperative customers Mille Lacs Energy Cooperative (MLEC) and Crow Wing Power (CWP) intend to place existing, new, or rebuilt distribution lines onto the 115 kV structures along all or a portion of the Highway 18 route, a practice called an "underbuild". Specialty transmission line structures including, but not limited to, steel or laminated wood post structures on concrete foundations may be used for long spans, road or waterway crossings, and when circumstances require them.

4. The Project will utilize 795 aluminum conductor steel supported (ACSS) conductors.

5. The Project is located in Crow Wing County, Minnesota.

Procedural History

6. On June 16, 2006, GRE notified the PUC that it intended to apply for a Route Permit under the Alternative Permitting Procedures set forth in Minnesota Rules parts 4400.2000 to 4400.2950. Exhibit 1.

7. On July 28, 2006, GRE filed an Application for a Route Permit for the Mud Lake to Wilson Lake transmission project with the PUC. Exhibit 2.

8. The Application identified GRE 's preferred route for the line and the associated facilities:

- A. Construct approximately 12 miles of new 115 kV transmission line between Minnesota Power's Mud Lake Substation in Oak Lawn Township and the Wilson Lake Substation in Bay Lake Township.
- B. Remove, upgrade, and attach most of the existing MLEC and CWP overhead distribution lines along Highway 18 to the new transmission line. The centerline of the new line will be within 10 feet outside the Highway 18 right-of-way (ROW).
- C. Modify the Mud Lake Substation to accommodate the termination of the new line.
- D. Rebuild and expand the Wilson Lake Substation to include a new 115/69 kV substation.

9. The DOC Staff recommended that the PUC accept the Application as complete, appoint a public advisor, and combine the environmental review and public hearings in this docket with the related Certificate of Need for the Project (ET-2/CN-06-367) in comments and recommendations dated August 9, 2006. Exhibit 4.

10. On August 9, 2006, GRE mailed its first Notice of Filing the Route Permit Application to those persons whose name appeared on the PUC's general notification list, local officials and property owners in compliance with Minnesota Rule part 4400.1350, subpart 2. Exhibit 5 and Exhibit 8.

11. On August 31, 2006, the DOC mailed a Notice of Public Information and Environmental Assessment (EA) Scoping meeting to those persons on the project mailing list and to those persons on the PUC's service list in the related Certificate of Need (ET-2/CN-06-367). Exhibit 7.

12. GRE mailed and published Notice of Application filing in the *Brainerd Daily Dispatch*, the *Mille Lacs Messenger* and *Crosby Ironton Courier* on August 9, 2006, in compliance with Minnesota Rule 4400.1350. Exhibit 8.

13. On August 31, 2006, a Notice of Public Information and EA Scoping Meeting was published in the *EQB Monitor*.

14. GRE published Notice of a Public Information and EA Scoping Meeting in the *Brainerd Daily Dispatch*, the *Mille Lacs Messenger* and *Crosby Ironton Courier* on September 6, 2006, in compliance with Minnesota Rule 4400.1550, subpart 2. Exhibits 35, 36, and 37.

15. The PUC accepted the Application as complete, and combined the environmental review and Public Hearings in this docket with the related Certificate of Need docket (ET-2/CN-06-367) in its Order dated September 7, 2006. Exhibit 9.

16. A Public Information and EA Scoping meeting was held on September 19, 2006, at the Garrison Township Hall near Garrison, Minnesota in accordance with Minnesota Rule 4400.2500. During the meeting, several landowners voiced concerns related to the proximity of the proposed transmission line to homes and businesses along GRE's Highway 18 proposed route. Issues were raised about final alignment or routing of the proposed line along Highway 18 with respect to safety and visual issues. Several members of the public requested that the existing Oak Lawn to Wilson Lake 69 kV transmission ROW should be considered in the EA as an alternative route for the Project. These issues, along with the typical line routing impacts, were incorporated into the EA Scoping Decision.

17. The DOC accepted public comments on the Scope of the EA until October 6, 2006. Two comment letters and one petition were received. One of the comment letters was signed by six landowners adjacent to the route. The petition was signed by 52 people owning land, businesses or residing near the proposed route. The comment letters and petition request that the DOC consider an alternative route in the EA using an existing 69 kV transmission right-of-way between the Oak Lawn Substation and the Wilson Lake Substation. Exhibits 10 and 11.

18. On October 19, 2006, the Commissioner of the DOC issued a Scoping Decision establishing the content of and alternatives considered in the EA. Exhibit 12.

19. On October 20, 2006, the DOC mailed the Scoping Decision to persons on the PUC Mud Lake to Wilson Lake service and project mailing lists. Exhibit 12.

20. On November 27, 2006, the DOC filed the EA with the PUC. The EA contained the information and analysis for the Route Permit Application and the Environmental Report required for the related Certificate of Need (ET-2/CN-06-367) docket. Exhibit 14.

21. On November 27, 2006, the PUC mailed a Notice of Prehearing Conference to those persons on the PUC Mud Lake to Wilson Lake service and project mailing lists. Exhibit 15.

22. On November 28, 2006, the DOC mailed a Notice of EA Availability to those persons on the PUC Mud Lake to Wilson Lake service and project mailing lists. Exhibit 13. The notice was placed on the PUC Energy Facilities Permitting web page on the same day.

23. On November 30, 2006, Administrative Law Judge Eric Lipman convened a prehearing conference at the PUC Small Hearing Room in St. Paul, Minnesota to schedule the joint Public Hearing and discuss procedural issues.

24. Pursuant to Minnesota Rule 4400.2850, GRE published Notice of Public Hearing in the *Brainerd Daily Dispatch* on December 1, 2006 and in the *Crosby-Ironton Courier* on December 6, 2006. Exhibit 21 and 22.

25. On December 1, 2006, the PUC mailed a Notice of Public Hearing to those persons on the PUC Mud Lake to Wilson Lake service and project mailing lists in accordance with Minnesota Statute 216E.03. Exhibit 18. The notice was posted on the PUC energy facilities web page on the same day.

26. On December 1, 2006, the DOC mailed a Notice of Public Hearing to local governmental officials via certified mail pursuant to Minnesota Statutes 216E.03. Exhibit 16.

27. On December 4, 2006, the DOC mailed Notices of EA Availability and Public Hearing to the Environmental Quality Board's (EQB) state agency technical representatives. Exhibit 17.

28. On December 4, 2006, the Notice of Public Hearing and availability of Environmental Assessment was published in the *EQB Monitor*. Exhibit 19.

29. A joint Public Hearing was held on December 13, 2006, at the Garrison Township Hall near Garrison, Minnesota. Administrative Law Judge Eric Lipman presided over the joint Public Hearing. The hearing considered comments and testimony on the Route Permit Application, and the related Certificate of Need docket (ET-2/CN-06-367).

30. Adam Sokolski appeared at the joint Public Hearing on behalf of the DOC Energy Facilities Permitting staff and pursuant to Minnesota Rule 4400.2850, subpart 3, provided a presentation describing the Certificate of Need and Route Permit process, the proposed Project, the EA and introduced documents into the record.

31. GRE employees Dale Aukee, David Kempf, Jim McGuire, Carole Schmidt, and Jerry Ellsworth appeared at the joint Public Hearing on behalf of GRE and testified about the Project, proposed route, reliability issues, environmental impacts, and other matters related to the project. Dan Lipschultz, esq., Moss and Barnett, also appeared on behalf of GRE.

32. Approximately 29 members of the public attended the joint Public Hearing. All persons who desired to speak were afforded a full opportunity to make a statement on the record. Exhibits 23, 27, 31, 32, 33.

33. The ALJ Lipman provided a comment period open for receipt of written comments until December 26, 2006.

34. On January 16, 2007, ALJ Lipman filed a summary of testimony, verbal comments at the joint Public Hearing, and three written comments received during the comment period. Exhibits 28 – 31.

35. Transcripts of the hearing were filed with the PUC on December 26, 2006. Exhibits 32, 33.

36. The DOC filed an errata page to the EA on December 26, 2006. The errata page clarified a statement made in the EA regarding the projected transmission capacity created by the Project and its ability to meet forecasted capacity needs through 2023. Exhibit 34.

Environmental Assessment Analysis of Proposed Route and Alternative Route

37. The EA was prepared in accordance with Minnesota Rules Part 4400.2750 and contained an environmental report required in for the related Certificate of Need (ET-2/CN-06-367) as authorized by the Commission and pursuant to Minnesota Rules 4410.7035. The EA evaluated GRE's proposed route and an alternative route proposed by the public during the EA scoping period. Exhibit 12.

38. The route for which GRE is requesting a permit from the Commission exits MP's Mud Lake Substation to the east side of GRE's existing 230 kV transmission line, proceeds north paralleling the 230 kV line for approximately 1.5 miles to the intersection of Minnesota Trunk Highway 18, then runs east along Highway 18 for approximately 10.5 miles to the MLEC Wilson Lake Substation.

39. The public proposed and the EA analyzed an alternative route utilizing a portion of the existing 69 kV Oak Lawn to Wilson Lake transmission line ROW, and three route segments between the Mud Lake Substation and the existing 69 kV transmission ROW. The segments are:

- A route segment paralleling Butternut Road, Townline Road, and approximately 1 mile cross country from the Mud Lake Substation east approximately 3 miles to the existing Oak Lawn to Wilson Lake 69 kV transmission right-of-way.
- A route segment paralleling County Highway 23 from Townline Road north to Highway 18 or Timber Lane then east to the existing right-of-way.
- A route segment paralleling Burgwald Road from Townline Road north approximately .5 miles to the existing right-of-way.

Potential Impacts and Mitigation

40. The total amount of agricultural land that will be impacted by the Project is dependent on the final route approved. Permanent impacts will occur due to the placement of the transmission line poles and construction of the substation. Temporary impacts may include soil compaction and crop damages within the transmission line right-of-way (ROW). Landowners will be compensated for the use of their land through easement payments. Additionally, to minimize loss of farmland and to ensure reasonable access to the land near the poles, GRE intends to place the poles within ten feet outside of the Highway 18 ROW or along county and township roads if the alternative route is permitted. When possible, GRE will attempt to construct the transmission line before crops are planted or following harvest. GRE will compensate landowners for crop damage and soil compaction that occur as a result of the Project.

41. The proposed transmission lines will be designed to meet or exceed all requirements of the National Electric Safety Code, which is the utility safety standard that applies to all transmission lines. In addition, the substation facilities will be fenced, and access will be limited to authorized personnel.

42. The Project will create only nominal corona or noise impacts and mitigative measures are not necessary.

43. There are several areas of concentrated residential and commercial development immediately adjacent or close to the proposed Highway 18 route and the alternative route. Approximately 88 homes and businesses are located within 250 feet of the Highway 18 centerline, of which 9 are within 100 feet. The alternative route avoids much of the development along Highway 18; however the alternative passes within 250 feet of an estimated 14 - 17 homes and farmsteads, of which 4 are estimated within 100 feet, depending on which segments are chosen. Neither route will displace homes or businesses.

44. The transmission line and structures may contrast with surrounding land uses, the proposed route and alternative route utilize existing transmission and transportation corridors, and will avoid homes to the greatest extent practicable. GRE will work with landowners to identify concerns related to the transmission line, including tree clearing, replanting cleared areas and aesthetics. The final alignment of the transmission line, if routed along Highway 18, could cross the highway several times in order to avoid homes and businesses.

45. Socioeconomic impacts will be primarily positive. The Project will create short-term construction expenditures in the area and increased electric service reliability in the Lake Mille Lacs region.

46. The Project is near several recreational opportunities, including a Hesitation Wildlife Management Area (WMA). The Highway 18 route will not impact these resources, however, the alternative route would cross the Hesitation WMA and may have an incremental impact to this area.

47. Traffic levels may be slightly impacted during construction of the Project, with no impacts anticipated during facility operation, and no mitigation will be necessary. The operation of the transmission line will have no impact on traffic patterns or usage.

48. The proposed transmission line will not impact active mining operations.

49. The proposed route and alternative route do not contain prohibited sites, including National Parks; national historic sites and landmarks, national historic districts; national wildlife refuges; national monuments; national wild, scenic and recreational river ways; state wild, scenic, and recreational rivers and their land use districts; state parks; nature conservancy preserves; state scientific and natural areas; and state and national wilderness areas.

50. Construction of the transmission line will result in no disturbances to the bedrock geology beneath the Project route. Soils exposed during construction may be vulnerable to erosion until stabilized. Some compaction of surface soils will result from the use of heavy construction equipment. GRE will implement best management practices (BMP) during construction activities to reduce and minimize soil erosion and compaction.

51. Ten previously recorded archeological sites were identified within 2 miles of the Highway 18 corridor, four of which contain burial mounds. In addition, based on an archeological study, the general area encompassing the northwest side of Lake Mille Lacs

contains some of the highest densities of archeological sites in Minnesota. The Minnesota State Historic Preservation Office (SHPO) indicates that the general area has a high degree of archeological site probability. GRE will conduct detailed archeological surveys, including soil sampling, along the permitted route prior to construction. GRE will implement mitigation and documentation measures consistent with Minnesota and federal laws governing archeological and historic resources. If human remains should be inadvertently encountered during excavation and construction, such a discovery would be handled in a manner compliant with Minnesota's Private Cemeteries Act. No impacts are anticipated to these resources.

52. Impacts to trees will occur due to the routing of the transmission line. Trees and tall vegetation will be cleared from up to 40 feet on either side of the 115 kV transmission line along the Highway 18 route. If the alternative route is permitted, up to 40 feet will be cleared on either side of the line where it is along road ROW, and 55 – 70 feet will be cleared where the new line and existing line run in a common corridor. To minimize impacts to trees, GRE will only remove trees located in the ROW for the transmission lines, or that would impact the safe operation of the facility.

53. There is potential for displacement of wildlife during construction of the Project and the loss of small amounts of habitat from the transmission line route. Displacement of fauna is anticipated to be temporary in nature. Because no long-term population-level effects are anticipated no mitigation will be required.

54. Transmission lines can pose an electrocution danger to large birds such as raptors. GRE's transmission line design standards provide adequate spacing to eliminate the risk of raptor electrocution, so there are no concerns about avian electrocution as a result of the transmission line. Additionally, GRE will address avian issues for the Project working with the Minnesota Department of Natural Resources (MDNR) to identify any areas that may require marking transmission line shield wires and/or using alternate structures to reduce collisions, and attempting to avoid areas such as known nesting areas, major flyways or migratory resting spots.

55. Electric and magnetic field (EMF) exposure was discussed in the EA. There are no state or federal health-based exposure standards. The Minnesota Department of Health recommends avoiding exposures about which there are questions of safety or health, at least to the extent that an activity can be avoided easily or cheaply. The Department of Health has stated that it is prudent to continue to monitor research in this area. The electric field generated by the Project will not exceed the limits on exposure to magnetic fields previously permitted by the Commission.

56. Impacts to air quality will be minimal, temporary, and associated only with ROW clearing and line construction.

57. Construction of the Project will not directly affect surface water resources. During construction, there is a possibility of sediment reaching surface waters as the ground is disturbed by excavation, grading and construction traffic. Though no permanent impacts to water bodies or wetlands are anticipated, GRE will minimize impacts to wetlands and other water resources by using standard erosion control measures and BMPs. A National Pollution Discharge Elimination System permit and Storm Water Pollution Prevention Plan will be

prepared for the Project. Once the Project is complete it will have no impact on surface water quality. No additional mitigation is necessary.

58. The MDNR searched the Minnesota Natural Heritage Database and thirty-two known occurrences of rare or endangered species and natural communities have been identified in the project area. The MDNR and the United States Fish and Wildlife Service indicate that the Project will not affect these species. GRE will not place transmission structures on or clear ROW where threatened or endangered species have been identified. To the extent practicable, GRE will avoid placing transmission line structures near known nests of threatened or endangered species and will consult with wildlife management agencies if such nests are discovered.

59. Both routes analyzed in the EA have similar human and environmental impacts, some of which are unavoidable if the Project is permitted and built. Neither route is expected to cause an irreversible or irretrievable commitment of resources.

60. The Project is proposed to resolve existing and emerging transmission reliability and service problems in the Lake Mille Lacs area. Peak demand for electricity currently exceeds the capacity of GRE's existing 69 kV transmission system in the project area and is growing at a rapid rate. The Project will add a fourth transmission source to the existing system, thus improving reliability and providing adequate transmission capacity to serve customers through 2023 and beyond.

61. The proposed transmission line along the Highway 18 route and the alternative route meet the National Electric Reliability Council's (NERC) reliability standards.

62. The existing 69 kV Oak Lawn – Wilson Lake line and the proposed Mud Lake – Wilson Lake lines are redundant; they provide transmission service to the Wilson Lake Substation and surrounding customers. Currently, the Oak Lawn – Wilson Lake line is considered a “critical element” meaning that if it is lost at times when electric demand exceeds transmission capacity, controlled rotating blackouts in the Lake Mille Lacs area may be required to avoid damaging the transmission system or customer equipment.

63. During the joint Public Hearing, Mr. Dave Kempf, GRE's transmission engineer, indicated that if the Project is built and both the existing 69 kV Oak Lawn – Wilson Lake line and the proposed 151 kV Mud Lake – Wilson Lake line are out of service simultaneously, electric customers served by GRE's 69 kV transmission system north of Isle and north of Vineland could be impacted with service interruptions, blackouts, or low voltage conditions until the line or lines are repaired and returned to service. See Exhibit 33, pages 85 – 91 and Exhibit 2, Figure 2-1.

64. Routing the Project along the Highway 18 route may reduce or eliminate the risk that a single emergency causes outages on both lines simultaneously. The Highway 18 route provides enhanced reliability in a natural disaster or severe weather caused outage because utility maintenance vehicles will have faster access to the proposed transmission line directly from Highway 18, even in the most severe winter conditions. If both lines were lost, the Highway 18 route allows faster restoration of the 115 kV line – and electric service to area customers.

65. Routing the proposed line along the 69 kV Oak Lawn – Wilson Lake common corridor alternative route may increase the risk that a single emergency creates an outage on both lines simultaneously resulting in a loss of service to customers in the area. Approximately 9 to 10 miles of the alternative route is cross county, common corridor. Portions of the alternative route are more than one mile away from roads. The alternative route is significantly more difficult to access due to difficult cross country and wet terrain increasing the risk of longer repair times and outages. GRE indicates that portions of the route alternative may only be accessible by specialized, limited availability track-based equipment under certain conditions.

66. During the joint Public Hearing, Mr. John Pierson, engineering technology manager for the Mille Lacs Energy Cooperative, testified that the cooperative and an adjacent distribution cooperative Crow Wing Power (CWP) intend to upgrade and rebuild existing distribution lines along Highway 18 regardless of the outcome of this proceeding. If the Highway 18 route is permitted, MLEC and CWP plan to place the rebuilt distribution lines on GRE's 115 kV transmission line structures, called an "underbuild". If the alternative route is approved, distribution cooperatives intend to rebuild existing distribution lines on private land easements outside the Highway 18 ROW on new 40 foot tall structures within the next several years. The distribution system improvements will require clearing ROW along Highway 18. Exhibits 32 and 33.

67. ALJ Lipman's Summary of Testimony at Public Hearings is incorporated by reference with the following clarifications to the ALJ's background on the applications. Exhibit 31. The Project is a total of 12 miles in length along GRE's proposed Highway 18 route, 10.5 miles of which are parallel to and along Highway 18, Exhibit 31 at page 1. The Highway 18 centerline, the centerline of the proposed route, passes within 250 feet of 88 residential or business buildings, not 88 persons. Exhibit 31 at page 2.

Applicable Statutory Conditions

68. The project qualifies as a Large Energy Facility under Minnesota Statute 216B.2421, and requires a Certificate of Need from the Commission. The GRE Certificate of Need for this Project is found in PUC docket number ET-2/CN-06-367. Minnesota Rule 4400.2950, Subpart 3, requires a Certificate of Need to be issued prior to making a final decision a Route Permit application.

69. The Project is eligible for the Alternative Routing Process of the Power Plant Siting Act, Minnesota Statute 216E.04 and Minnesota Rule 4400.2000.

70. Minnesota Statute 216E.03, subdivision 7 provides considerations in designating sites and routes as follows:

The Commission's site and route permit determinations must be guided by the state'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 electric transmission infrastructure. To facilitate the study, research,

evaluation and designation of sites and routes, the Commission shall be guided by, but not limited to, the following considerations:

(i) Evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high voltage transmission lines and the effects of water and air discharges and electric and magnetic fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including baseline studies, predictive modeling, and evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;

(ii) Environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;

(iii) Evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

(iv) Evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

(v) Analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;

(vi) Evaluation of adverse direct and indirect environmental effects that cannot be avoided should the proposed site and route be accepted;

(vii) Evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;

(viii) Evaluation of potential routes that would use or parallel existing railroad and highway rights-of-way;

(ix) Evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

(x) 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 expansion in transmission capacity through multiple circuiting or design modifications;

(xi) Evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and

(xii) When appropriate, consideration of problems raised by other state and federal agencies and local entities.

If the Commission's rules are substantially similar to existing regulations of a federal agency to which the utility in the state is subject, the federal regulations must be applied by the Commission.

No site or route shall be designated which violates state agency rules.

Applicable Rule Considerations

71. Minnesota Rules part 4400.3150 provides as follows:

In determining whether to issue a permit for a large electric power generating plant or a high voltage transmission line, the Commission shall consider the following:

- (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;
- (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 resources and 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 which 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.

Costs

72. GRE estimates that the transmission line, Wilson Lake Substation expansion and upgrades at the Mud Lake Substation will cost \$15,872,000 million for GRE's preferred Highway 18 route. GRE estimates that the alternative route would cost the same or slightly more than the Highway 18 route.

Environmental Assessment

73. The EA addressed the issues and alternatives identified in the Commissioner's Scoping Decision.

Based on the foregoing Findings of Fact, the PUC makes the following:

CONCLUSIONS

1. Any of the foregoing Findings more properly designated as Conclusions are hereby adopted as such.

2. The PUC has jurisdiction over the subject matter of this proceeding pursuant to Minnesota Statute 216E.03, subdivision 2 (recodified from 116C.57, subdivision 2).

3. The Project is a Large Energy Facility under Minnesota Statute 216B.2421, and requires a Certificate of Need from the Commission.

4. The Project qualifies for review under the Alternative Review Process of Minnesota Statute 216E.04 (recodified from 116C.575) and Minnesota Rules parts 4400.2000 to 4000.2950.

5. The Applicant, the DOC and the PUC have complied with all procedural requirements required by law.

6. The DOC has completed an Environmental Assessment on this Project as required by Minnesota Statute 216E.04, subdivision 5 (recodified from 116C.575), Minnesota Rule 4400.2750, and considered all the pertinent factors in determining whether the Certificate of Need and Route Permit should be approved.

7. The conditions included in the Route Permit are reasonable and appropriate.

Based on the Findings of Fact and Conclusions contained herein and the entire record of this proceeding, the PUC hereby makes the following:

ORDER

A Route Permit is hereby issued to GRE to construct a new 115 kV transmission from the Mud Lake Substation to the Wilson Lake Substation and to expand the existing Wilson Lake Substation in Crow Wing County, Minnesota. The route shall follow GRE's proposed Highway 18 route, subject to conditions in the attached Route Permit. The route begins at the Mud Lake Substation, runs on the east side of GRE's existing 230 kV transmission line, proceeds north paralleling the 230 kV line for approximately 1.5 miles to the intersection of Minnesota Trunk Highway 18, then runs east along Highway 18 for approximately 10.5 miles to the Wilson Lake Substation. The Route Permit shall be issued in the form attached hereto, with a map showing the approved route.

Approved and adopted this 12th day of February, 2007.

BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

(SEAL)

This document can be made available in alternative formats (i.e., large print or audio tape) by calling 651-201-2202 (voice) or 1-800-627-3529 (MN relay service)

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH
VOLTAGE TRANSMISSION LINE**

IN

CROW WING COUNTY, MINNESOTA

ISSUED TO

GREAT RIVER ENERGY

PUC DOCKET No. ET-2/TL-06-980

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 4400, this Route Permit is hereby issued to:

Great River Energy

Great River Energy is authorized by this route permit to construct a 12 mile, single circuit, 115 kV transmission line, expand its Wilson Lake Substation approximately 4.55 acres, and add associated facilities at the Mud Lake Substation to accommodate the new transmission line as proposed in the Company's Route Permit Application, dated July 28, 2006.

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

Approved and adopted this 12th day of February, 2007

BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary

(SEAL)

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I. ROUTE PERMIT

The Minnesota Public Utilities Commission (PUC) hereby issues this route permit to Great River Energy pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 4400. This permit authorizes the Great River Energy (GRE) to construct a 12 mile, 115 kV high voltage transmission line (HVTL), expand the Wilson Lake Substation approximately 4.55 acres, and add associated electrical equipment necessary for connection of the permitted line at the Mud Lake and Wilson Lake substations.

II. PROJECT DESCRIPTION

GRE is authorized to build a 12 mile, 115 kV transmission line, expand its Wilson Lake Substation approximately 4.55 acres, and add associated electrical equipment necessary for connection of the permitted line at the Mud Lake and Wilson Lake substations.

The transmission line authorized by this permit will utilize 795 aluminum conductor steel supported (ACSS) conductors. The line will be constructed on wood transmission structures (poles) with horizontal post insulators. GRE is authorized to place existing, new, or rebuilt distribution lines onto the 115 kV structures along the route, a practice called an “underbuild”. Specialty transmission line structures including, but not limited to, steel or laminated wood post structures on concrete foundations are authorized for long spans, road or waterway crossings, and when circumstances require.

III. DESIGNATED ROUTE

The route designated by the Commission in this permit comprises the segments as described in detail below, as analyzed in the EA, and shown on the Official Route Map attached to this permit. In an effort to maximize Great River Energy’s ability to accommodate individual landowners’ needs, a route width of 250 feet on either side of the stated route centerline is approved. The approved right-of-way (ROW) widths for the selected segments are up to 45-feet where the route is adjacent to existing roadway ROW or clear zones, and up to 70-feet wide where the route travels “cross-country”.

Segment 1: The route begins at the Mud Lake Substation in Oak Lawn Township. The route will exit the substation and to the east side of GRE’s existing 230 kV transmission line and will travel cross-country north parallel the 230 kV line for approximately 1.5 miles to the intersection of Minnesota Trunk Highway 18 (Highway 18). The centerline of the route in this segment will be 70 feet east of GRE’s existing “MR” 230 kV transmission line.

Segment 2: Upon intersecting Highway 18, the route will turn eastward and generally parallel to Highway 18 for approximately 10.5 miles until terminating at the Wilson Lake Substation in Bay Lake Township. The centerline of this segment is the Highway 18 roadway centerline.

Wilson Lake Substation Expansion and Mud Lake Associated Facilities: The Wilson Lake Substation will be rebuilt and expanded approximately 4.55 acres immediately west of the existing Wilson Lake Substation on property owned by Great River Energy and/or the Mille Lacs Electrical Cooperative (MLEC). Equipment to accommodate the interconnection of the new transmission line at the Mud Lake and Wilson Lake substations is permitted.

IV. PERMIT CONDITIONS

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

A. Plan and Profile. At least 14 calendar days before right-of-way preparation for construction begins, the Permittee shall provide the PUC with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line. The Permittee may not commence construction until the 14 days has expired or until the PUC 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 intend to make any significant changes in its plan and profile or the specifications and drawings after submission to the PUC, the Permittee shall notify the PUC 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.

B. Construction Practices.

1. Application. The Permittee shall follow those specific construction practices and material specifications described in the Great River Energy application to the PUC for a route permit, dated July 28, 2006, and as described in the EA unless this permit establishes a different requirement in which case this permit shall prevail.

2. Field Representative. At least 10 days prior to commencing construction, the Permittee shall advise the PUC 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's address, phone number, and emergency phone number shall be provided to the PUC, which may make the information available to local residents and public officials and other interested persons. The Permittee may change its field representative at any time upon written notice to the PUC.

3. Cleanup. All waste and scrap that is the product of construction shall be removed from the area 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. Vegetation Removal. The Permittee shall minimize the number of trees to be removed in selecting the right-of-way. As part of construction, low growing brush or tree species are allowable at the outer limits of the easement area. Taller tree species that

endanger the safe and reliable operation of the transmission facility need to be removed. To the extent practical, low growing vegetation that will not pose a threat to the transmission facility or impede construction should remain in the easement area.

5. Erosion Control. The Permittee shall implement reasonable measures to minimize runoff during construction and shall plant or seed non-agricultural areas that were disturbed where structures are installed.

6. 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 ROW.

7. Restoration. The Permittee shall restore all temporary work spaces, access roads, abandoned ROW, and other private lands affected by construction of the transmission line. Restoration 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 PUC in writing of the completion of such activities.

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

C. Periodic Status Reports. Upon request, the Permittee shall report to the PUC on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittee need not report more frequently than quarterly.

D. Complaint Procedure. Prior to the start of construction, the Permittee shall submit to the PUC the company's procedures to be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

E. Notification to Landowners. The Permittee shall provide all affected landowners with a copy of this permit at the time of the first contact with the landowners after issuance of this permit.

F. Completion of Construction.

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

2. As-Builts. Upon request of the PUC, the Permittee shall submit copies of all the final as-built plans and specifications developed during the project.

3. GPS Data. Within 60 days after completion of construction, the Permittee shall submit to the PUC, in the format requested by the PUC, geo-spatial information (GIS

compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines, each switch, and each substation connected.

G. Electrical Performance Standards.

1. Grounding. The Permittee shall design, construct, and operate the transmission line in such a manner that the maximum steady-state short-circuit current shall be limited to five milliamperes rms alternating current between the ground and any non-stationary object within the ROW including but not limited to, large motor vehicles and agricultural equipment. All fixed metallic objects on or off the ROW, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the 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 National Electric Safety Code.

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.

3. Interference with Communication Devices. If interference with radio or television, satellite or other communication devices is caused by the presence or operation of the transmission line, the Permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

H. Other Requirements.

1. Applicable Codes. The Permittee shall comply with applicable Rural Utilities Service (RUS), North American Electric Reliability Council (NERC) construction standards and requirements of the National Electric Safety Code (NESC) including clearances to ground, clearance to crossing utilities, clearance to buildings, ROW widths, erecting power poles, and stringing of transmission line conductors.

2. Other Permits. 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 required permits is included in the permit application and the environmental assessment. The Permittee shall submit a copy of such permits to the PUC upon request.

3. Pre-emption. Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the Permittee 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.

I. 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 PUC shall consider suspension of the permit in accordance with Minnesota Rule 4400.3750.

V. PERMIT AMENDMENT

The permit conditions in Section IV. may be amended at any time by the PUC. Any person may request an amendment of the conditions of this permit by submitting a request to the PUC in writing describing the amendment sought and the reasons for the amendment. The PUC will mail notice of receipt of the request to the Permittee. The PUC may amend the conditions after affording the Permittee and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The Permittee may request at any time that the PUC 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 PUC with such information as the PUC shall require to determine whether the new permittee can comply with the conditions of the permit. The PUC may authorize transfer of the permit after affording the Permittee, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The PUC may initiate action to revoke or suspend this permit at any time. The PUC shall act in accordance with the requirements of Minnesota Rules part 4400.3950 to revoke or suspend the permit.

**PUBLIC UTILITIES COMMISSION
COMPLAINT REPORT PROCEDURES FOR
HIGH VOLTAGE TRANSMISSION LINES**

1. Purpose

To establish a uniform and timely method of reporting complaints received by the Permittees concerning the permit conditions for right-of-way preparation, construction, cleanup and restoration, and resolution of such complaints.

2. Scope

This reporting plan encompasses complaint report procedures and frequency.

3. Applicability

The procedures shall be used for all complaints received by the Permittees.

4. Definitions

Complaint - A statement presented by a person expressing dissatisfaction, resentment, or discontent as a direct result of right-of-way preparation, construction, cleanup and restoration. Complaints do not include requests, inquiries, questions, or general comments.

Substantial Complaint - Any complaints submitted to the Permittees in writing that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

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.

5. Responsibilities

Everyone involved with right-of-way preparation, construction, cleanup and restoration is responsible to ensure expeditious and equitable resolution of all complaints. It is therefore, necessary to establish a uniform method for documenting and handling complaints directed to this project. The following procedures will satisfy this requirement:

- A. The Permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:
1. Name of the permittee and project.
 2. Name of complainant, address and phone number.
 3. Precise property description or tract number (where applicable).
 4. Nature of complaint.
 5. Response given.
 6. Name of person receiving complaint and date of receipt.
 7. Name of person reporting complaint to the DOC and phone number.
 8. Final disposition and date.
- B. The Permittee shall assign an individual to summarize complaints for transmittal to the PUC.

6. Requirements

The Permittee shall report all complaints to the DOC according to the following schedule:

Immediate Reports - All substantial complaints shall be reported to the DOC by phone the same day received (or on the following working day for complaints received after working hours) at 651-296-2096.

Monthly Reports

By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the proceeding month, and a copy of each complaint shall be sent to Minnesota Department of Commerce, 85 East 7th Place, Suite 500, Saint Paul, MN 55101.

7. Complaints Received by the DOC

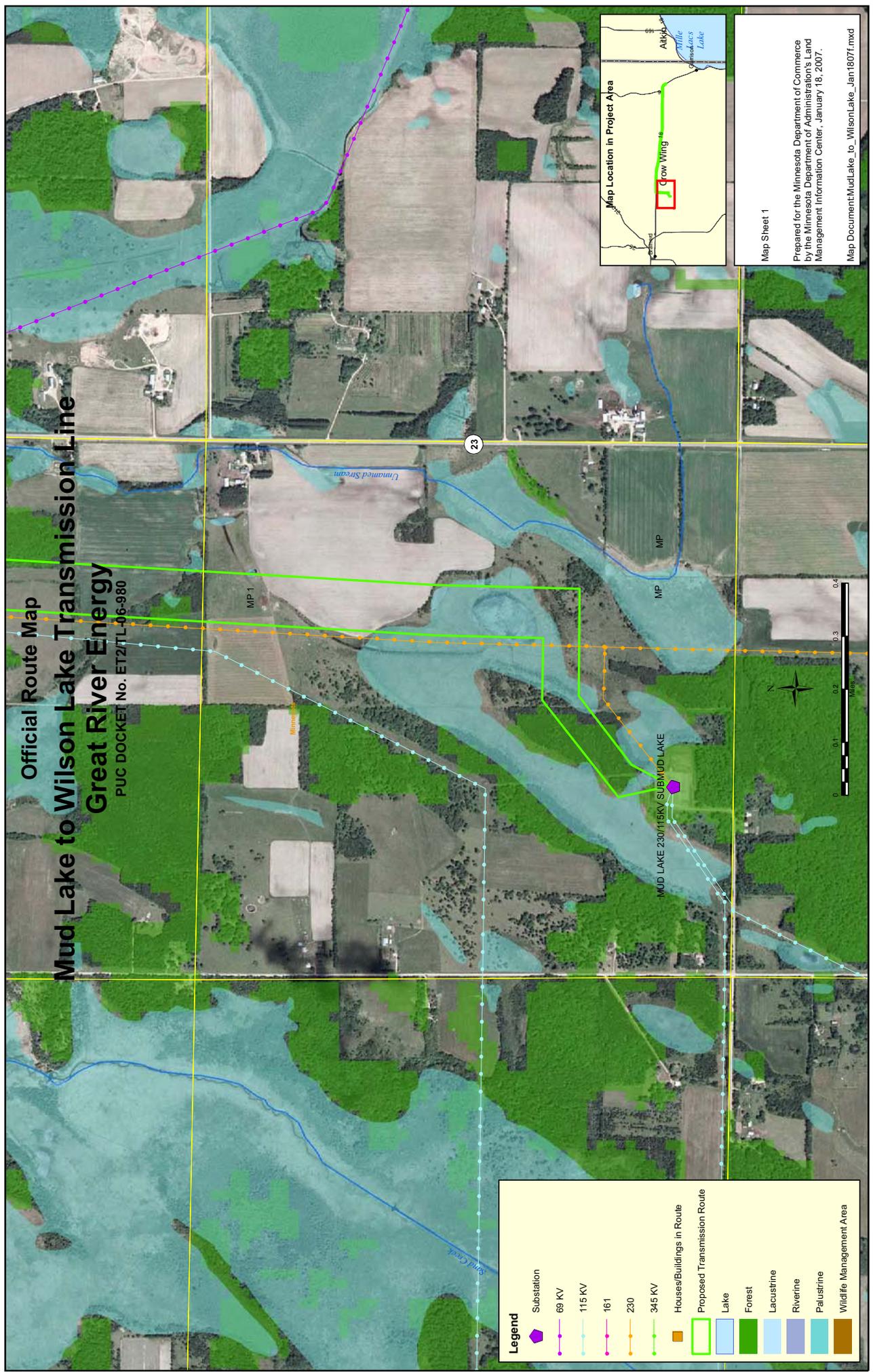
Copies of complaints received directly by the DOC from aggrieved persons regarding right-of-way preparation, construction, cleanup and restoration shall be promptly sent to the Permittees.

Mud Lake to Wilson Lake Transmission Line

Official Route Map

Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

| | |
|--|-----------------------------|
| | Substation |
| | 69 KV |
| | 115 KV |
| | 161 |
| | 230 |
| | 345 KV |
| | Houses/Buildings in Route |
| | Proposed Transmission Route |
| | Lake |
| | Forest |
| | Lacustrine |
| | Riverine |
| | Palustrine |
| | Wildlife Management Area |

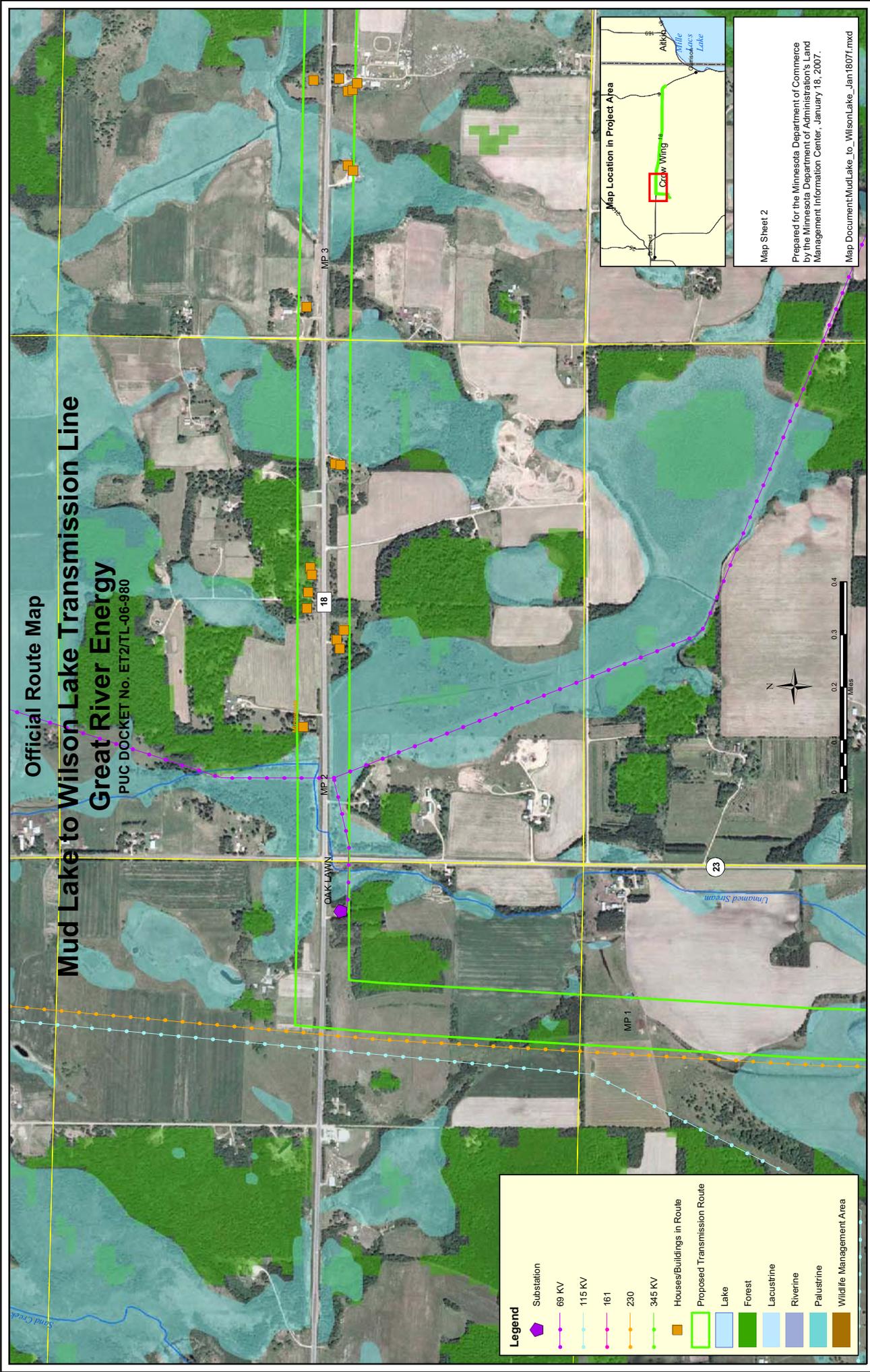
Map Sheet 1

Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

Map Document\MudLake_to_WilsonLake_Jan18071.mxd

Official Route Map Mud Lake to Wilson Lake Transmission Line Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

- Substation
- 69 KV
- 115 KV
- 161
- 230
- 345 KV
- Houses/Buildings in Route
- Proposed Transmission Route
- Lake
- Forest
- Lacustrine
- Riverine
- Palustrine
- Wildlife Management Area

Map Location in Project Area

Map Sheet 2

Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

Map Document\MudLake_to_WilsonLake_Jan1807f.mxd



Official Route Map Mud Lake to Wilson Lake Transmission Line Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

- Substation
- 69 KV
- 115 KV
- 161
- 230
- 345 KV
- Houses/Buildings in Route
- Proposed Transmission Route
- Lake
- Forest
- Lacustrine
- Riverine
- Palustrine
- Wildlife Management Area

Map Location in Project Area

Map Sheet 3

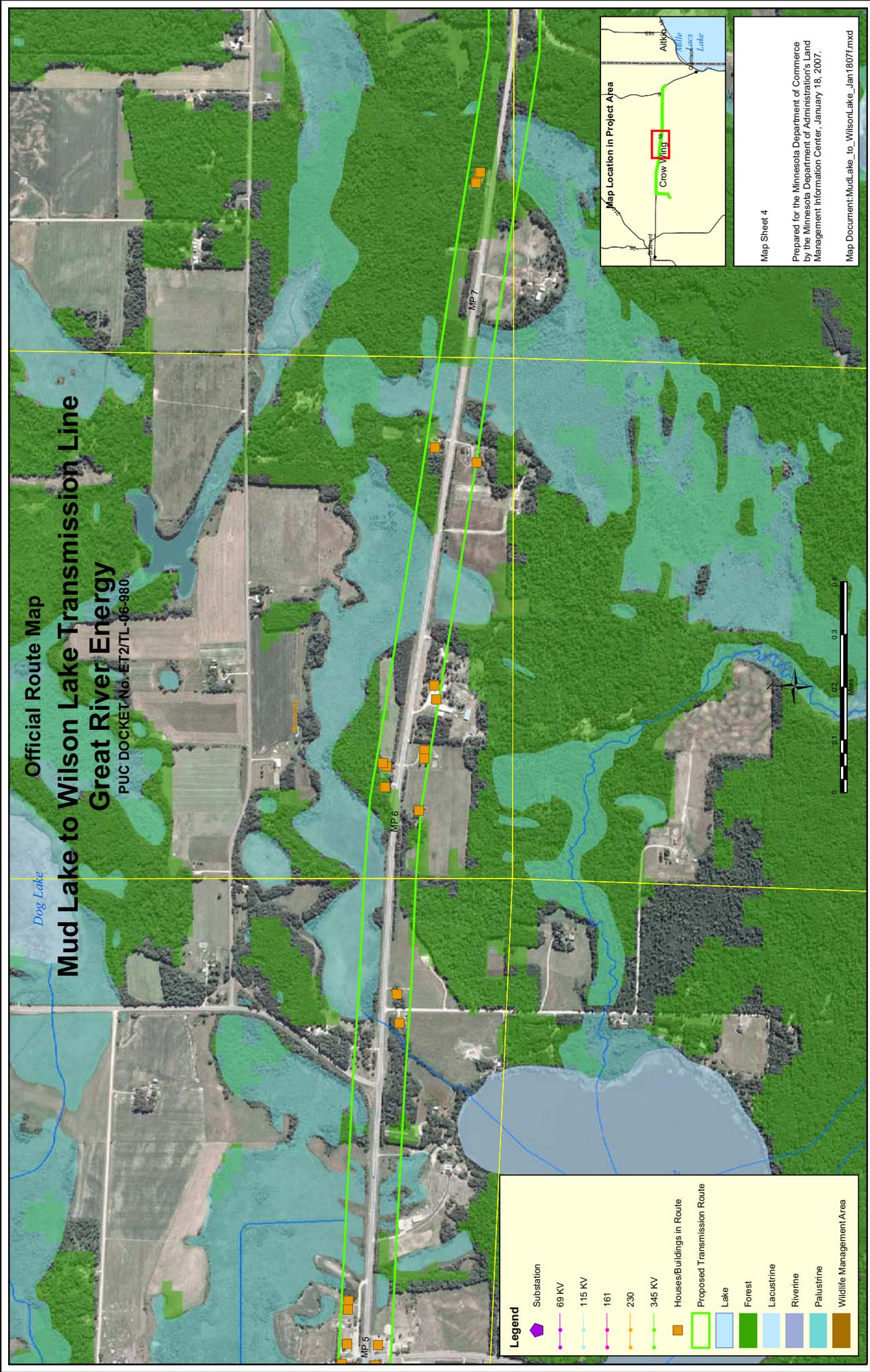
Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

Map Document: MudLake_to_WilsonLake_Jan1807.mxd



Official Route Map Mud Lake to Wilson Lake Transmission Line Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

- Substation
- 69 KV
- 115 KV
- 161
- 230
- 345 KV
- Houses/Buildings in Route
- Proposed Transmission Route
- Lake
- Forest
- Lacustrine
- Riverine
- Palustrine
- Wildlife Management Area

Map Location in Project Area

Map Sheet 4

Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

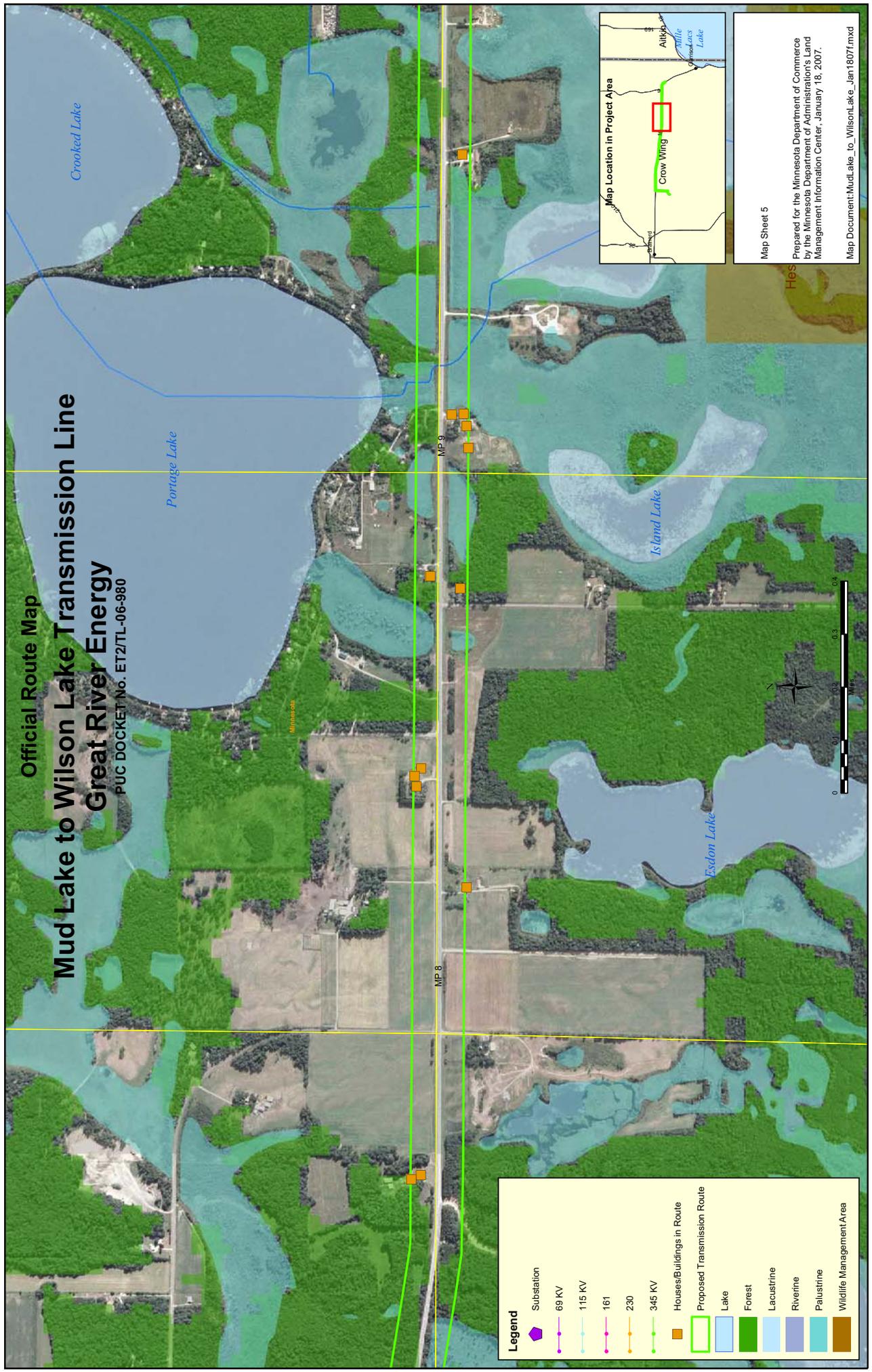
Map Document: MudLake_to_WilsonLake_Jan1807.mxd

Official Route Map

Mud Lake to Wilson Lake Transmission Line

Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

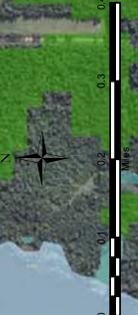
- Substation
- 69 KV
- 115 KV
- 161
- 230
- 345 KV
- Houses/Buildings in Route
- Proposed Transmission Route
- Lake
- Forest
- Lacustrine
- Riverine
- Palustrine
- Wildlife Management Area

Map Location in Project Area

Map Sheet 5

Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

Map Document: MudLake_to_WilsonLake_Jan1807.mxd



Official Route Map Mud Lake to Wilson Lake Transmission Line Great River Energy

PUC DOCKET No. ET2/TL-06-980



Legend

- Substation
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- Houses/Buildings in Route
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- Wildlife Management Area

Map Location in Project Area

Map Sheet 6

Prepared for the Minnesota Department of Commerce
by the Minnesota Department of Administration's Land
Management Information Center, January 18, 2007.

Map Document: MudLake_to_WilsonLake_Jan1807.mxd