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Analysis
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- **Minnesota Department of
Commerce**

**Citizen Advisory Committee
Nashwauk – Blackberry
Natural Gas Pipeline**

PUC Docket No. PLE 280/GP-06-1481

October 26, 2007

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Introduction

In August 2007, the Public Utilities Commission (Commission) took under review Nashwauk Public Utilities' application for a Pipeline Routing Permit. The proposed Nashwauk-Blackberry pipeline will transport the natural gas required to operate the Minnesota Steel Nashwauk Taconite Reduction Plant and other related customers near the City of Nashwauk in northeast Minnesota. The application identified five alternative routes for the pipeline (see Appendix A for a map of the alternative routes):

- 2005 Itasca County/MSI Alternative 1
- 2005 Itasca County/MSI Alternative 2
- 2005 Itasca County/MSI Alternative 3 (applicant preferred route)
- 2007 NPUC/MNPUC Citizen's Route – Alternative P1
- 2007 NPUC/MNPUC Citizen's Route – Alternative P2

The Commissioner of the Minnesota Department of Commerce (Department) appointed a Citizen Advisory Committee (CAC) under Minn. Rules part 4415.0055 to advise the Public Utility Commission on Nashwauk Public Utilities' pending Pipeline Routing Application for the Nashwauk – Blackberry Natural Gas Pipeline. The CAC members assisted the Public Utility Commission in determining (1) what routes should be evaluated and (2) what impacts and issues should be considered in the comparative environmental analysis of all pipeline routes accepted for consideration by the Commission. (See Appendix B for CAC Charge)

The Citizen Advisory Committee (CAC) for the Nashwauk – Blackberry Natural Gas Pipeline included the following members:

- Karen Burthwick – Itasca County; Mark Mandich – alternate
- Karen Calaguire – Nashwauk Township
- John Chell – Arrowhead Regional Development Commission
- Keith Griese – Goodland Township
- William Hanson – City of Taconite
- William Hendricks – City of Nashwauk
- Allen Jackson – Blackberry Township
- William Litchke – City of Cohasset
- Bob Norgord – Trout Lake Township
- Carter Pettersen – Arbo Township
- Dwight Randall – Lone Pine Township
- Steve Raukar – St. Louis County
- Bob Staydohar – Greenway Township

Methodology

The Citizens Advisory Committee met three times from August 2007 to October 2007. The meetings were open to the public, and frequently additional people attended to listen to the discussion. The committee, through a facilitated process, discussed and made recommendations to the Commissioner of Commerce following the charge given to the task force. It was determined that prior to addressing the first task, “what routes should be evaluated,” in the CAC’s charge, it would serve the committee well to first flesh out those issues associated with the CAC’s second task of determining impact and issues.

At the second meeting of the CAC, the five alternatives identified in the application were presented to the Citizens Advisory Committee (CAC) for review and to address any questions of clarity. After a brief discussion, the CAC members were asked to identify the critical route issues with each of the five alternative routes.

The members of the CAC identified issues individually then paired up to select issues to bring to the whole group. In their discussions the CAC members found Table E-11: Summary Comparison of 5 Major Routes (page E-27 of the application) very useful (see Appendix C).

The third meeting focused primarily on the identification of new routes. In addition, the CAC further reviewed modifications of proposed alternative routes and clarified some of the issues for each of these routes.

Impacts and Issues to Consider

The CAC identified the issues and impacts by responding to the following question: “What impacts and issues should be considered in the comparative environmental analysis of all pipeline routes accepted for consideration by the Commission?”

The CAC members’ responses were identified and categorized into six areas:

A. Balance between economic needs and the environment

- Least impact to communities and wetlands; balance between communities and wetlands; impact on houses affected; least amount of concern to those near the pipeline
- Whole environmental impact
- Wildlife impact
- Least damaging to environment

B. Open minds – weigh thoughts and data leading to developing consensus

- Fairness in decision process – balance; not one special interest driving decision
- Consensus of route – at end we all agree

- C. Site as far away from population as possible and still accomplish route, considering risk assessment**
 - Safety
 - Safety – decision “will not come back on task force later on” (as a poor decision); impacts on pipeline during construction and operation; safety during construction and operation; safe for people in the area

- D. Find most economic route that is agreeable to the most people**
 - Most feasible route; cost effective, accessible, least disruptive, fair to all
 - Feasibility and cost
 - Cost and profitability: to put the pipeline in; option for future profits with additional connections

- E. Flexibility for least impact to citizens directly affected by the route**
 - Landowner issues: safety, loss of control of land, loss of usability of land
 - Least impact to citizens near pipeline
 - Human impact

- F. Impact on potential economic development and use of existing corridors**
 - Follow right-of-way where possible – pipelines already there
 - Future development; use of existing right-of-way (all uses) to minimize impact for future development
 - Multi-use corridor: multi-industrial, multi-utility, multi-modal

One of the issues (B) focused on the process for the CAC while the others focused on issues to consider in the analysis of selecting the appropriate route for the pipeline.

Identification of Critical Route Issues for Each Alternative

The CAC reviewed each alternative and identified the critical issues for each one. The issues included:

2005 Itasca County/MSI Alternative 1

Comments

- Item – route uses 100 percent on an existing high voltage line corridor
- Advantage identified – may be accessible to western ore reserves
- It was clarified that the map in the application is not correct. This route should begin east of Highway 2, not cross Highway 2 as shown in the application.
- This alternative goes north and west of large iron ore deposits (therefore not having to cross) running from Grand Rapids to Hibbing along Highway 169.

Issues identified

- Highest amount of wetlands crossed (total of 5.44 miles of wetland crossed)
- Number of homes impacted (33 homes)
- Length of pipeline (27.25 miles)
- Too remote from other potential users along Highway 169 corridor
- Some CAC members noted they could not identify any critical issues for the route

2005 Itasca County/MSI Alternative 2**Comments**

- This alternative crosses the iron ore deposits between Grand Rapids and Hibbing at the one available area known as the Minnesota Power 115 corridor to the east of Taconite.
- Crosses potential mining areas – may be a cost to move the pipeline to allow for mining. Also, there is potential for an additional cost because of mining company charging to cross their property. (See Alternative 3 below for more detail.)

Issues identified

- Crosses wetland area and forested wetlands (total of 3.37 miles of wetland crossed)
- One-third of the route does not follow an existing corridor, but the remainder follows various corridors including a natural gas pipeline.
- Several of the CAC members noted they could not identify any critical issues for the route.

2005 Itasca County/MSI Alternative 3 (applicant preferred route)**Comments**

- This alternative crosses the iron ore deposits between Grand Rapids and Hibbing at the one available area known as the Minnesota Power 115 corridor to the east of Taconite.

Issues identified

- Does not follow an existing corridor – it was noted that about 50 percent of the route does follow an existing corridor, and 50 percent of the route creates a new corridor.
- Crosses several major arteries including Highway 2, Highway 169, and the railroad line that parallels Highway 2
- Crosses potential mining areas – it was noted that RGGGS Holding Company does own land that has iron ore deposits under it. (However, it was discussed that the deposits may not be mined because the quality and location of the deposit was in question.) If this route is selected, there may be a cost to move the pipeline to allow for mining. Also, there is potential for an additional cost because of RGGGS charging to cross their property.
- Homes in close proximity to pipeline (five homes were identified with an average distance to the pipeline of 233 feet (fewest number of homes and furthest distance of any alternative)
- Close to a special needs home located on North Road close to County Road 10

- Close to planned home for Ojibwa elders ¼ mile east of where route crosses Highway 169 (at Checkered Road)
- Several of the CAC members noted they could not identify any critical issues for the route

2007 NPUC/MNPUC Citizen's Route – Alternative P1

Comments

- It was noted by a CAC member that Route P1, the citizen's route along the railroad grade and the snowmobile trail (as developed in the application) is not what citizens recommended, therefore does not properly reflect the impact. This alternative was discussed during the third meeting of the CAC and is reviewed under new alternatives.

Issues identified

- Trout stream impacted by the route
- 79 homes impacted by the route (second largest number of homes impacted)
- Longest of five alternative routes (35.44 miles)
- Needs to cross railroad grade close to route's start at Highway 2
- Largest number of water crossings (17)
- Closeness to homes (average of 103 feet)
- Unable to construct a pipeline within 2000 feet of a mine blasting zone impacting where route crosses just west of Nashwauk
- Unable or difficult to purchase land from active mines
- Needs to cross through the city of Nashwauk (along Highway 65); the disruption of digging up and redoing existing facilities along the route in town
- Crosses over iron ore deposits north and east of the city of Nashwauk (limits route of crossing iron ore field to the one identified above through Nashwauk or going about 7 ½ miles to the west to cross deposits just east of Taconite.)

2007 NPUC/MNPUC Citizen's Route – Alternative P2 – Issues identified

- 156 homes impacted by the route (largest number of homes impacted of all routes)
- Second closest average distance to homes (90 feet)
- Trout stream impacted by the route
- Needs to cross through the city of Nashwauk (along Highway 65) and the disruption of digging up and redoing existing facilities along the route in town
- Crosses over iron ore deposits north and east of the city of Nashwauk (limits route of crossing iron ore field to the one identified above through Nashwauk or going about 7 ½ miles to the west to cross deposits just east of Taconite.)

Modifications to Five Route Alternatives

The CAC members discussed various ideas for modifying the existing alternative routes. A number of ideas were discussed, but there was sufficient concern for each new idea, or the applicant had reviewed the idea and provided enough evidence to the contrary, that the CAC did not find it a viable option.

The CAC discussed a recommendation to remove Alternative P1 and Alternative P2 from going forward to the Commission. The concern was the routing through the city of Nashwauk (along Highway 65) and the disruption of digging up and redoing existing facilities along the route in town. The CAC failed to reach consensus on the recommendation with a vote of 6 members supporting removal and 3 members opposing the removal.

The CAC reached consensus on only one route modification to the record.

2005 Itasca County/MSI Alternative 2– Gather additional data

The CAC wanted more information on a route that would follow an existing eight-inch pipeline from LaPrairie to Nashwauk. This route travels a narrow route between Trout Lake and Bass Lake along County Road 21. The concern or question raised was whether the corridor was adequate to include this pipeline or whether there would be an impact on the bodies of water and homes in the area. The adequacy of the corridor also included the ability of the pipeline to “weave” inside the corridor or route so it would have the least impact to homes and water.

Additional Information

As the CAC discussed the five alternative routes, a series of questions or concerns were raised. These were either responded to at the time or tabled for discussion until additional data was gathered. The key questions or statements are identified below:

- A new corridor (where none has existed before) does become a utility corridor that other utilities can use for future pipelines, powerlines, etc.
- Corridors can be overlapped for inclusion of additional utilities but many factors need to be considered for the safe installation and operation of the utilities in these corridors.
- The width of the corridors identified in the five alternatives is ¼ mile. This is to allow for some flexibility in the exact location of the pipeline. The pipeline may “weave” within this corridor subject to engineering and physical requirements. The application is for a corridor in which to place the pipeline.
- Landowners along the routes proposed in the routing application have not all been notified. Pipeline routing rules require that the Commission publish notice of

proposed route locations in each county where a route is proposed for consideration at the public hearing. Department staff will request that the PUC require notification of individual landowners along all routes considered at the public hearing.

- A request for additional data on the number of private landowners impacted by the five alternative routes and the length of the pipeline over both public and private lands was made and responded to during the meetings. (See Appendix C for this information.)
- A request for a response to the question whether abandoned rail corridors would revert back to private ownership and a time frame for this to happen was raised, but because of time and the complexity of the issue, a response was not available for inclusion in this document.

New Alternatives Considered

Redefined Citizens Route

As noted earlier, the alternative P-1 outlined in the application was identified by a CAC member as different from what was proposed. The CAC discussed a new alternative route following the snowmobile route from Swan River North, paralleling Highway 65 – then Highway 16 to somewhere near the Tank Lake area (similar to P-1), continuing straight north following the St. Louis/Itasca county line. It would then cross Highway 169 between Nashwauk/Keewatin, continuing north and turn west following the northern border of the City of Nashwauk to the west and into the Minnesota Steel plant.

The CAC discussed various modifications to the proposed new route especially where it would pass between Nashwauk and Keewatin crossing Highway 169. The best modification identified was having the route proceed as identified above but after moving partway up the St. Louis/Itasca county line to veer west south of the catchment area, circling around the catchment area and then going northwest between Keewatin and the City of Nashwauk sewage basin, crossing over Highway 169 where “old 169” veers off, then connecting to the bike trail skirting north of Nashwauk.

Issues to proposed alternative

The CAC reviewed the proposed new alternative and identified the critical issues. The issues included:

- The route does not serve the best economic and environmental interests of the area.
- Creates a problem if there is future development along Highway 169 in this area.
- This route is one of the longer routes identified.
- Unable to construct a pipeline within 2000 feet of a mine blasting zone, impacting where route crosses just west of Nashwauk.
- Need to cross through the city of Nashwauk (along Highway 65) – the disruption of digging up and redoing existing facilities along the route in town.
- Crossing over iron ore deposits north and east of the city of Nashwauk.

The CAC failed to reach consensus on the recommendation with a vote of 2 members supporting the proposed new alternative and 9 members opposing the proposed new alternative.

New route presented by citizen

Another new alternative route was reviewed by the CAC. This route was presented in a letter to the Minnesota Department of Commerce. The route follows an existing high voltage power line and starts east of Rice Lake in Blackberry Township, goes just west of Little Sand Lake, east of Panasa Lake, then crosses Highway 169 and into Nashwauk Township. (See Appendix D for the letter presenting the route to the department.)

The CAC discussed the proposed route and rejected it as a viable alternative because of the number of acres of seasonally flooded basin and/or bogs it would have to cross. In these areas the water could be five or more feet deep, and the stability of the ground is in question.

Modification to Alternative 3

The same citizen who presented the above alternative to the Department of Commerce also submitted in writing a modification to Alternative 3. The modification was to allow for the building of a home in Blackberry Township. It was noted that the modification could be addressed in the corridor identified in Alternative 3. No further action was taken with this alteration. (See Appendix E for a copy of this letter.)

Recommendations

1. Gather additional data for 2005 Itasca County/MSI Alternative 2

The CAC wanted more information on this route following an existing eight-inch pipeline from LaPrairie to Nashwauk. The route travels a narrow route between Trout Lake and Bass Lake along County Road 21. The concern or question raised was whether the corridor was adequate to include this pipeline or would there be an impact on the bodies of water and homes in the area. The sufficiency of the corridor also included the ability of the pipeline to “weave” inside the corridor or route so it would have the least impact to homes and water.

2. Coordinate the new corridors for the natural gas pipeline, new roadway, and new railroad that are being created to cross the iron ore deposit at the Minnesota Power 115 Corridor and connect to the Minnesota Steel Plant in Nashwauk.

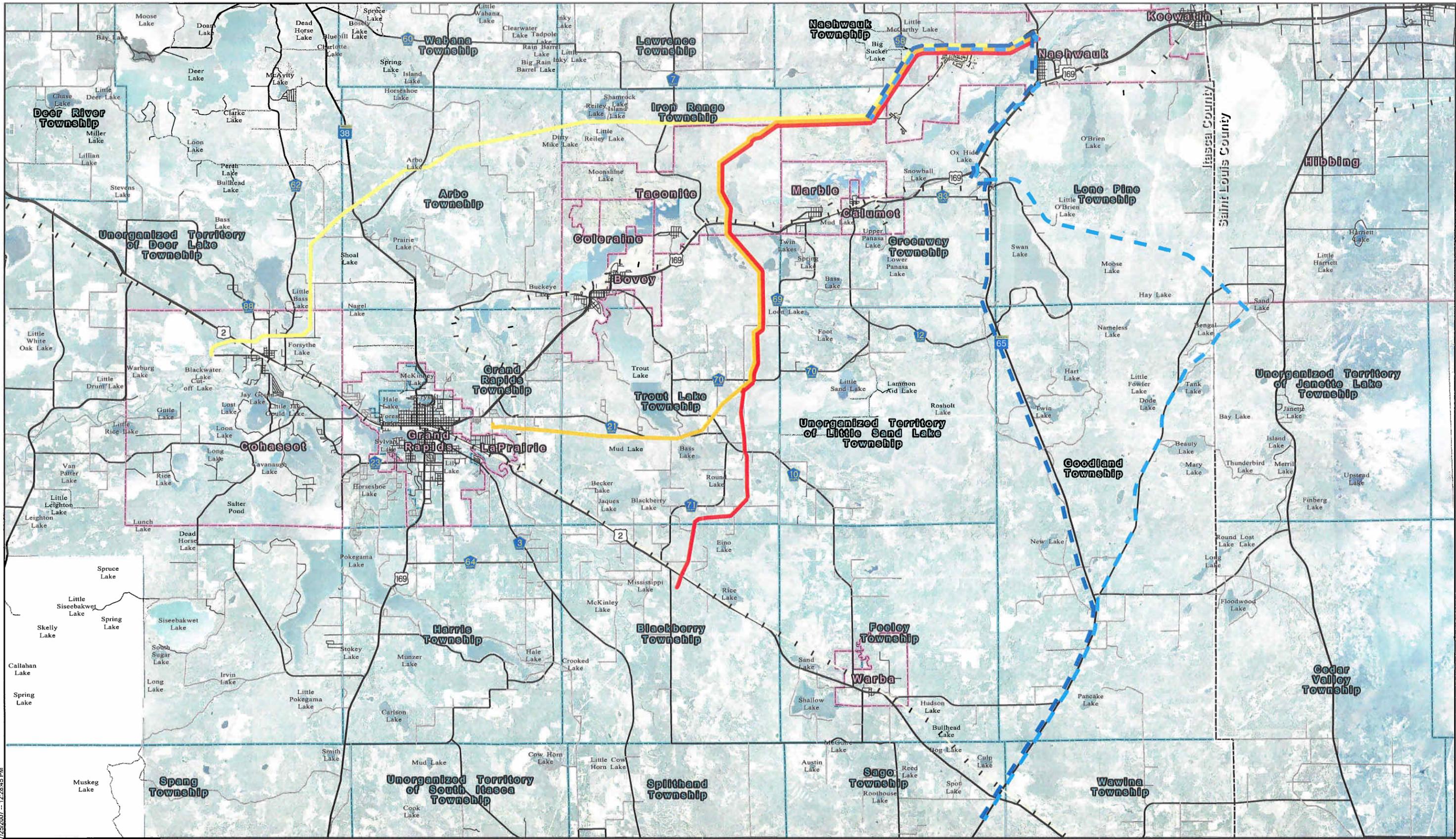
The CAC noted the need for all the corridors to cross the iron ore deposits between Grand Rapids and Hibbing at the one available area known as the Minnesota Power 115 corridor to the east of Taconite. It was recommended by the CAC to overlay these proposed routes and coordinate the planning and installation of the infrastructure.

It was noted by a representative from the department that this recommendation was out-of-scope for the CAC. The CAC members discussed this but determined the recommendation had value to the process and agreed by consensus to keep it in the report.

Appendix A

Map of Five Alternative Routes

Map Document: (S:\KOWIN\Nashua\07100\GIS\MN\NUPUC Permit Supplement Alternatives Analysis - 5 Alignments OVERALL 11x17 L.mxd)
7/25/2007 -- 12:28:45 PM




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**City of Nashwaik
Public Utilities
Commission**

July 2007

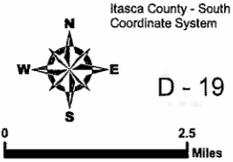
Legend

- 2005 Itasca County/MSI - Alternative 1 (05-ICMSI-1)
- 2005 Itasca County/MSI - Alternative 2 (05-ICMSI-2)
- 2005 Itasca County/MSI - Alternative 3 (05-ICMSI-3)
- 2007 NPUC/MNPUIC Citizen's Route - Alternative P1 (07-MNPUIC-P1)
- 2007 NPUC/MNPUIC Citizen's Route - Alternative P2 (07-MNPUIC-P2)
- MN Steel Plant Layout
- Existing Roads
- Existing Rail Lines
- Municipal Boundaries
- Civil Township Boundaries
- County Boundaries

**Nashwaik-Blackberry
Pipeline Project**

**Itasca County/MSI &
Citizen's Alignment
Alternatives**

Itasca County - South
Coordinate System



D - 19

0 2.5
Miles

Appendix B

Citizen Advisory Committee Decision and Charge



August 14, 2007

TO: Glen Wilson, Commissioner
Edward Garvey, Deputy Commissioner
THROUGH: Marya White, Manager *MW*
FROM: William Cole Storm, Staff
DOC Routing & Siting Unit (Tel: 651-296-9535)
RE: Structure and Charge Citizen Advisory Committee
NPUC Blackberry to Nashwauk Pipeline Routing Permit Application
PUC Docket # PL E280/GP-06-1481

ACTION REQUIRED: Signature of the Commissioner on the attached determination for the structure and charge of the Citizen Advisory Committee (CAC). Once signed, the Department of Commerce (DOC) staff will appoint members to the CAC per the proposed structure and begin work on the proposed charge.

BACKGROUND: On March 6, 2007, the Nashwauk Public Utilities Commission (NPUC) filed an application for a pipeline routing permit and partial exemption from pipeline route selection procedures for the Nashwauk to Blackberry natural gas pipeline project. The Docket number for this project is PL,E-280/GP-06-1481.

On April 3, 2007, the Commission released an order that accepted the NPUC application under the partial exemption rules as complete.

On Wednesday, April 18, 2007, a public information meeting was held at the Taconite Community Center concerning the proposed Nashwauk to Blackberry pipeline route permit application. The public had until May 18, 2007, to submit comments on the project and application. Due to some procedural issues associated with the notice for the initial public meeting, a second public information meeting was held on May 24, 2007, at the Nashwauk City Hall. The public comment period was extended to June 8, 2007.

Approximately 50 people attended the second information meeting; a variety of questions were asked and comments made by the attendees. While concerns raised included safety of the pipeline, impact on property values, limitations on the use of pipeline easements, and compensation to land owners, the major issues seemed to be the lack of discussion on alternative routes contained within the application and a desire to have a citizen advisory committee established.

On July 12, 2007, the NPUC submitted a request to the Commission to convert its original application for a partial exemption into a full proceeding pursuant to Minn. Rule 4415.045. On July 27, 2007, NPUC submitted a revised pipeline routing permit application incorporating the requirements of the full Pipeline Route Selection Procedures.

On August 9, 2007, the Commission granted NPUC's request to convert to the full pipeline route selection procedures. This decision included:

1. Accept the revised Nashwauk Public Utilities Commission pipeline route permit Application under the full pipeline route selection procedures and grant NPUC's request to convert the current docket (PL, E280/GP-06-1481) to the full review process.
2. Authorize the Department to establish a citizen advisory committee with the charge and structure recommended in the provided attachment.

Project Description

The proposed pipeline route originates at a take-off point on the existing Great Lakes Gas (GLG) 36-inch pipeline in Blackberry Township. The 24-inch pipeline will run north for approximately 13-miles to an area near the city of Taconite. The proposed pipeline will then turn northeast for approximately 9-miles until it reaches the city of Nashwauk. The pipeline will terminate in the northeast ¼ of the northeast ¼ of Section 36 in Township 57 North Range 23 West, Itasca County. Attachment 1 provides project location maps for the proposed pipeline.

The proposed pipeline will be a 24-inch outside diameter, welded steel, fusion bond epoxy-coated pipe. The pipeline will provide the natural gas fuel required to operate the proposed Minnesota Steel Nashwauk Taconite Reduction Plant and other potential industrial customers near the city of Nashwauk. The proposed pipeline will provide natural gas service to Minnesota Steel's proposed plant for use in the processing of taconite and other plant operations. The pipeline is designed to deliver natural gas at a maximum rate of 206 million cubic feet per day and is planned to operate at a pressure of 599 pounds per square inch gauge (psig). The Maximum Allowable Operating Pressure of the pipe will be 1016 psig.

CC: Deb Pile, Supervisor



In the Matter of the Application of
Nashwauk Public Utilities for A Route
Permit for the Nashwauk-Blackberry
Natural Gas Pipeline

CITIZEN ADVISORY COMMITTEE
DECISION AND CHARGE
PUC DOCKET NO. PLE 280/GP-06-
1481

The above-entitled matter came before the Commissioner of the Department of Commerce (Department) for a decision on the appointment of a Citizen Advisory Commission (CAC) to advise the Public Utility Commission (Commission) on Nashwauk Public Utilities' (Nashwauk) pending Pipeline Routing Application for the Nashwauk – Blackberry Natural Gas Pipeline.

WHEREAS, the PUC accepted Nashwauk's application for a Pipeline Routing Permit and partial exemption from Pipeline Route Selection Procedures on April 3, 2007; and

WHEREAS, on August 9, 2007, the Commission approved Nashwauk's request to convert Nashwauk's original filing to the full pipeline routing process and accepted Nashwauk's revised Application for a Pipeline Routing Permit; and

WHEREAS, Minn. Rule 4415.0055 provide for the establishment of a CAC to aid and advise the Commission in evaluating routes for pipelines. Under these rules, the Commission shall provide guidance to the CAC in the form of a charge to the CAC and through specific requests to it; and

WHEREAS, Minn. Rule 4415.0060 establishes that a CAC be comprised of at least one representative from each of the following: a regional development commission, the county, a municipal corporation, and a town board from each county in which a route is proposed to be located. This rule further stipulates that no officer, agent, or employee of the applicant shall serve on the citizen's advisory committee; and

WHEREAS, on August 9, 2007, the Commission authorized the Department to establish a CAC for the project, and

THEREFORE, having reviewed this information, the Department makes the following determination with regard to the need for and charge to a CAC relating to this matter.

Citizen Advisory Committee Authorization

As directed by the Commission, the Department establishes a CAC to advise the Commission in evaluating route alternatives for the proposed Nashwauk – Blackberry Pipeline. CAC members will be solicited, as required by Minn. Rules part 4415.0060, from the following governmental units:

- Arrowhead Regional Development Commission
- Itasca County
- St. Louis County
- City of Taconite
- City of Cohasset
- City of Nashwauk
- City of Hibbing
- Blackberry Township
- Trout Lake Township
- Iron Range Township
- Grand Rapids Township
- Nashwauk Township
- Greenway Township
- Lone Pine Township
- Goodland Township
- Arbo Township
- Wawina Township

The CAC will comprise no more than 17 members.

In accordance with Minnesota Rules 4415.0055 and 4415.0060, the Department charges the citizen advisory committee as follows:

The CAC members will assist the Commission in determining (1) what routes should be evaluated and (2) what impacts and issues should be considered in the comparative environmental analysis of all pipeline routes accepted for consideration by the Commission. CAC members are expected to participate with Department of Commerce Energy Facilities Permitting staff in up to three working meetings and develop a summary report for the Commission containing their recommendations. The CAC will expire upon the Commission's decision of what routes shall be accepted for consideration at the public hearing.

The Department's EFP staff is directed to compile a list of names for possible appointment to the CAC.

Signed this 21 day of August, 2007



Glenn Wilson
Commissioner
Minnesota Department of Commerce

Appendix C

Table Showing Summary Comparison of Five Major Route Alternatives

2.3 Comparison of Major Route Alternatives

Of the 11 route alternatives considered, there emerged 5 major route alternatives. This section will compare the environmental and human impacts along each major route alternative. This analysis is based upon the same sources of publicly available environmental data described in above, supplemented by field data where available. The analysis considered homes, land use issues, wetland and waterbody crossings. A variety of factors were identified and compared for each major route alternative, including total length, intermitted waterbodies, perennial waterbodies, railroads, roads, interstates and highways, NWI-mapped wetlands, NWI-mapped forested wetlands, center pivot irrigation systems, forest land, agricultural land, developed land, open land, state/federal lands, number of individual land parcels, and residential development areas. The results of this comparative analysis are summarized in Table E-11.

Table E-11: Summary Comparison of 5 Major Route Alternatives.

	Units	Route #1 Preferred Route	Alternative Route #2 West Grand Rapids	Alternative Route #3 East Grand Rapids	Alternative Route #10 Railroad	Alternative Route #11 Highway 65
Total Length	Miles	23.49	27.25	24.59	35.44	29.92
Perennial Waterbodies crossed	Number	7	7	7	12	6
Intermittent Waterbodies Crossed	Number	1	2	1	2	1
Total NWI-mapped Wetlands Crossed	Number (miles)	3.34	5.44	3.37	4.47	1.18
NWI-mapped Forested Wetlands Crossed (Type 6 and 7)	Number (fcet)	12,743	17,704	16,110	15,545	4449
Center Pivot Irrigation Systems Crossed	Number (miles)	0	0	0	0	0
House Count	Number	5	33	10	79	156
Average Distance to Home	Feet	233	86	196	103	90
Std Dev Distance to Home	Feet	101	277	159	232	223
Total Length of Wetlands Crossed	Miles	3.34	5.44	3.37	4.47	1.18
Unique Wetlands Crossed	Number	25	34	22	32	17
Individual Wetlands Crossed	Number	31	48	31	44	21
Total Water Crossings	Number	8	10	9	17	10
Total Designated Trout Stream Crossings	Number	0	0	0	2	1
Total (PWI) Protected Watercourse Crossing by Route	Number	8	10	9	17	10

A brief description of each of the major alternatives follows. A map of each major route alternative is included in Appendix D.

Route 1: Original Code 1, Final Code 1, Internal Code 07-Nashwauk-P, Date 2007.

Appendix D

Letter Identifying New Route Submitted by Citizen

Bill Storm

September 8, 2007

Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198



Attn: Sharon Ferguson/Bill Storm/Deborah Pile

Re: PUC Docket No.PL E280/GP-06-1481

ROUTE PROPOSAL

This route would splice off Great Lakes Gas in Section 13 in Blackberry Township to the East of Rice Lake. Proceeding North through Section 12 and intercept an existing HVTL right-of-way in Section 1 and would then follow the HVTL to the East and in Section 5-Feeley Township would turn in a basically Northeasterly direction up to Nashwauk. When this route reaches the Nashwauk area in Section 32, the Nashwauk Public Utilities Commission would have to "fine tune" it to be compatible with the present and future requirements.

I have attempted to find a route that avoids human settlement per Subp. 3-A and use of existing right-of-ways Subp. 3-F under MN Rules Part 4415.0100. This route also utilizes large tracts of Itasca County Tax Forfeited land which should greatly decrease the land acquisition costs. There are nine Sections of tax forfeit land through the route would pass.

In SEH No. A-NASHU0701.00 application page E-26 they outline the disadvantages of pipelines in close proximity to HVTL. This alleged problem can be easily overcome by adjusting my proposed routing away from HVTL in Sections 13,12,1,6 & 18 (see large drawing). These are entire Sections of land (640 acres each)! Any possible harmful effects can be offset by modern technology and costs will be offset by utilizing tax forfeit lands. Enbridge has a pumping station in Blackberry Township adjacent to 24293 US Hwy 2 that is practically under the HVTL and is not encountering any problems. In a phone conversation with Micah Harris (Enbridge Sr.Land&Right-of-Way Specialist) Tel 715-394-1420, Cell 218-591-3370, I asked him about electro-motive forces and he pointed out that they have hundreds of miles of pipeline in Wisconsin that run under HVTL with no problems. Expert information on this topic can be obtained by contacting John Bissell- Cathodic Expert phone 715-394-1417.

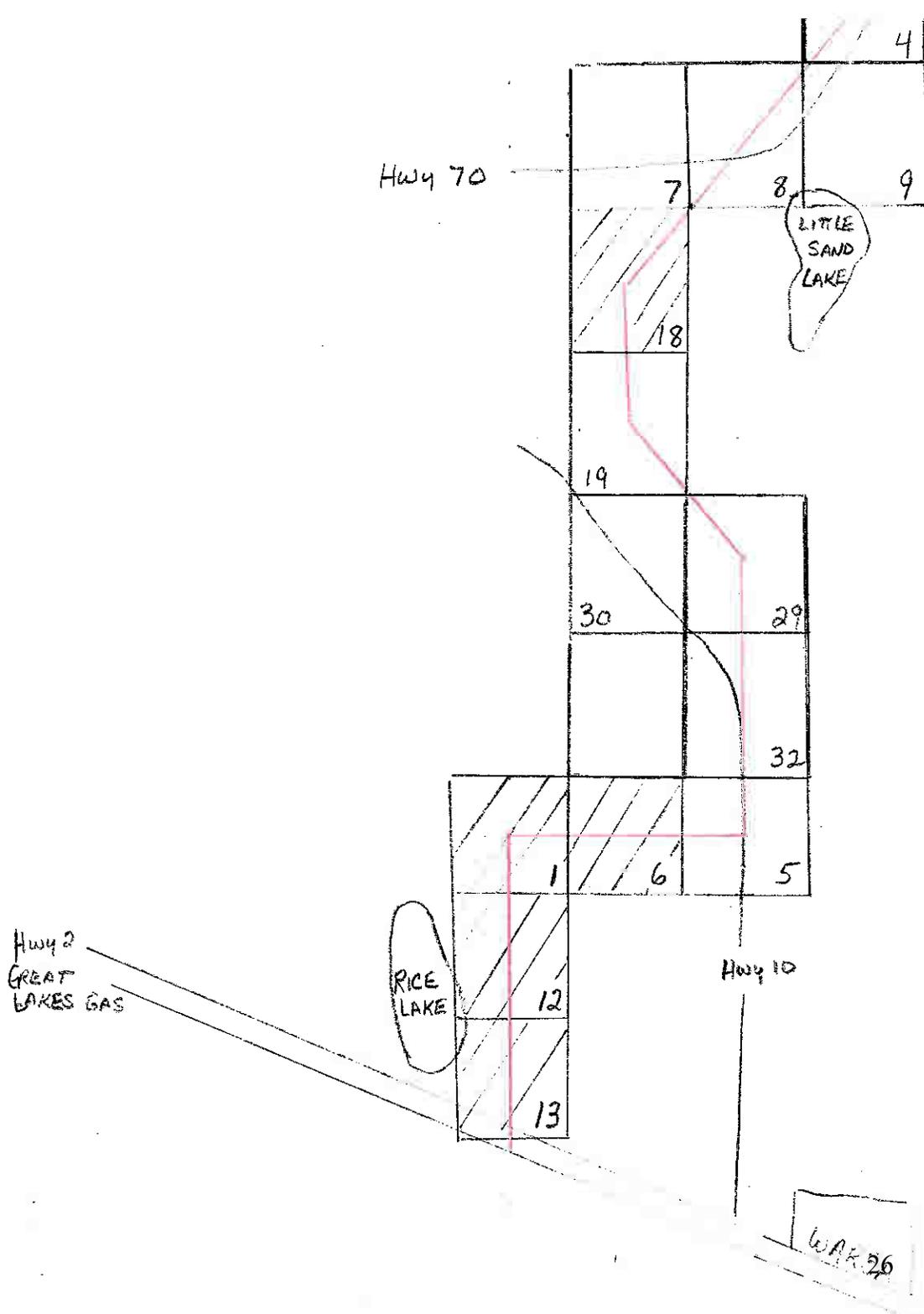
I have enclosed SEH map D-23 with my proposed route outlined in red with a red circle at the Great Lakes Gas splice. Also enclosed is a map I generated using Itasca County Plat maps. The map that I generated is not to scale and may contain some inconsistencies that can easily be corrected by SEH and was designed to generate general information about the route not precise technical data. I am not an engineer, just a concerned citizen attempting to propose the most viable route for the pipeline. Adjustments to this route will have to be made but I believe this general routing to be vastly superior to any of the other alternative (and preferred route) outlined by SEH.

If I understand the procedure-the next step in the process is to pass this proposal on to the Citizens Committee for discussion and hopefully, their approval. Thank you for your time invested in examining this proposal and hopefully your approval as well.

Sincerely.

Michael Karna

Michael Karna
21205 Bluebird Drive
Grand Rapids, MN 55744
Phone 218-326-6061



NASHWALK (E) SECTION 32

LONE PINE TOWNSHIP SECTIONS 7, 6 & 5

GREENWAY TOWNSHIP SECTIONS 34, 26, 23, 14,
13 & 12

UNORGANIZED TWP T55N-R23W
SECTIONS 32, 29, 30, 19, 7, 8, 9 & 4

FEELEY TOWNSHIP SECTIONS 6 & 5

BLACKBERRY TOWNSHIP SECTIONS 13, 12 & 1

— PROPOSED ROUTE FOLLOWS MVTL
FROM CENTER OF SECTION 1 TO THE
EAST THEN NORTHERLY TO APPROX.
SECTION 32

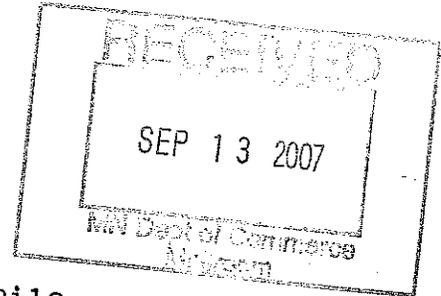
▨ ITASCA COUNTY TAX FORFEITED

Appendix E

Letter identifying Route Modification Submitted by Citizen

September 10, 2007

Department of Commerce
85 7th Place East, Suite 500
St. Paul, MN 55101-2198



Attn: Sharon Ferguson/ Bill Storm/ Deborah Pile

Re; PUC Docket No.PL E280/GP-06-1481

ROUTE MODIFICATION PROPOSAL

I do not agree that the SEH preferred route is best corridor but in the event that is chosen by the PUC-I am asking for a slight modification. I own parcel 08-010-3200. where the tie-in for the Nashwauk to Great Lakes Gas will occur in Blackberry Township. Recently I have sold on Contract for Deed 16 acres of the original 35 acres and 6 acres of the original 20 acres in parcel 08-010-2304 to Kathy Shuster. Kathy, her daughter and two sons plan on building homes on the two parcels that would be cut diagonally by the SEH preferred route. I ask that the route be changed to run straight North 200 feet from the East property line of parcel 08-010-3200 from the tie-in to Hwy 2. This will put the pipeline crossing Hwy 2 at the same point as the preferred route but will greatly reduce the impact on the developmental plans of Kathy Shuster and her family. I have proposed this change to Clarence Kdrmas and he verbally approved. I also proposed a possible road to be built to access the tie-in from the Happy Hollow Road which Clarence also agreed to. I have not seen any modification to the preferred route on maps generated by SEH since that first meeting in Taconite.

I am asking for a documented route change and also locked gates across the Happy Hollow access and Hwy 2 access to the Nashwauk pipeline to which only Nashwauk Public Utilities, Great Lakes Gas, and I would have keys. This documentation is needed ASAP so that Kathy and her family can proceed with placement of their homes.

Your assistance in this matter will be greatly appreciated and I will pass the documentation on to Kathy Shuster as soon as I get it. I made a verbal condition of sale of this property that I either get the route changed entirely or at least get it modified so the Shusters can use the property they are buying not just watch the pipeline carve it up. I have sent a Route Change Proposal separately so that it could be evaluated independently from the modification proposal.

Sincerely,
Michael Karna
Michael Karna
21205 Bluebird Drive
Grand Rapids, MN 55744
Phone 326-6061

HAPPY HOLLOW ROAD

08-410-0120

08-010-2304

08-010-3200

08-010-3100

HWY 2

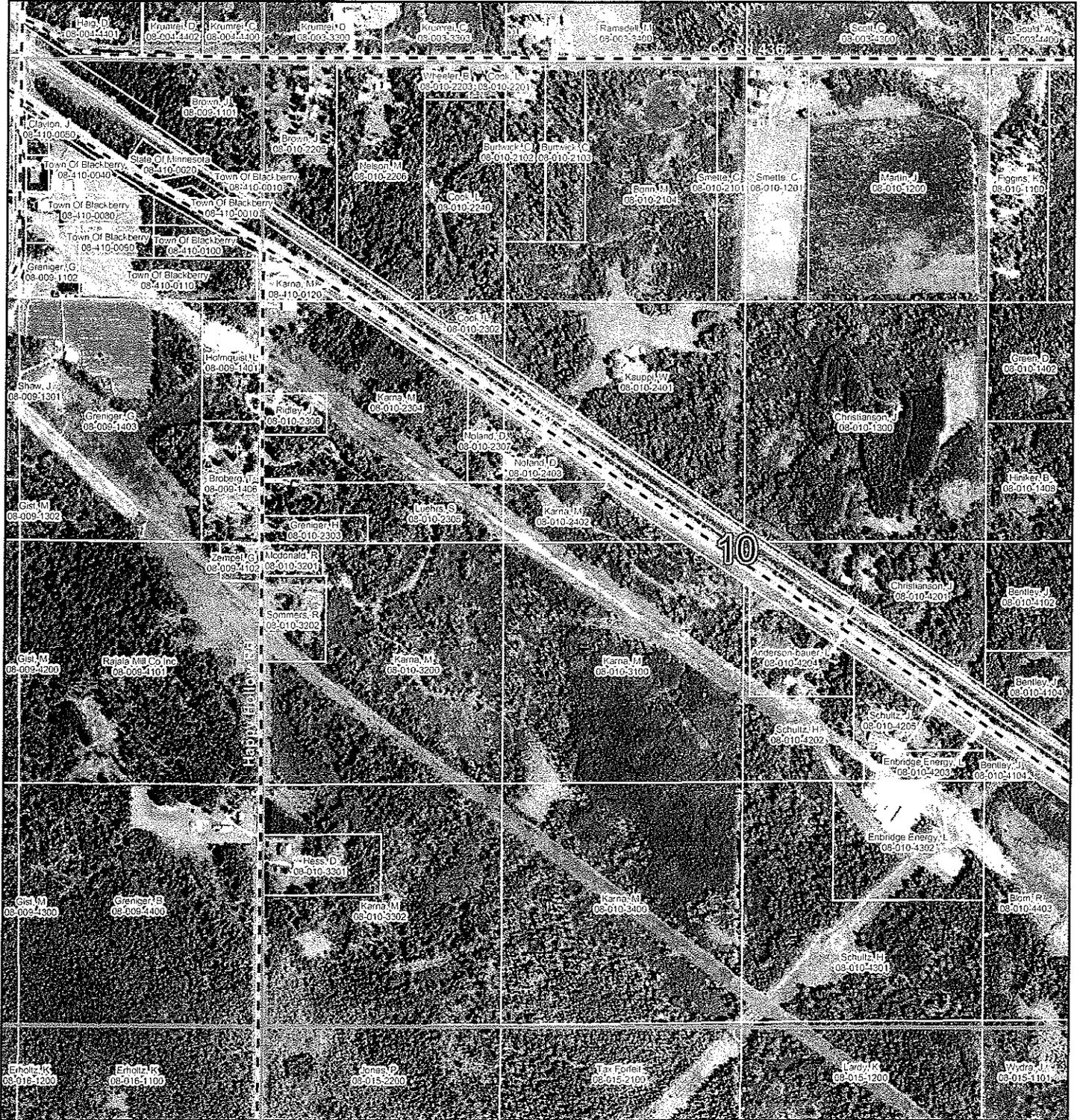
ENBRIDGE

GREAT LAKES GAS

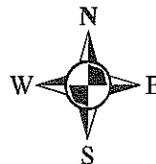
- — — — — PREFERRED ROUTE
- — — — — MODIFIED ROUTE
- — — — — KATHY SHUSTER PROPERTY

Blackberry

T54 - R24



Map Created by Larry Daigle



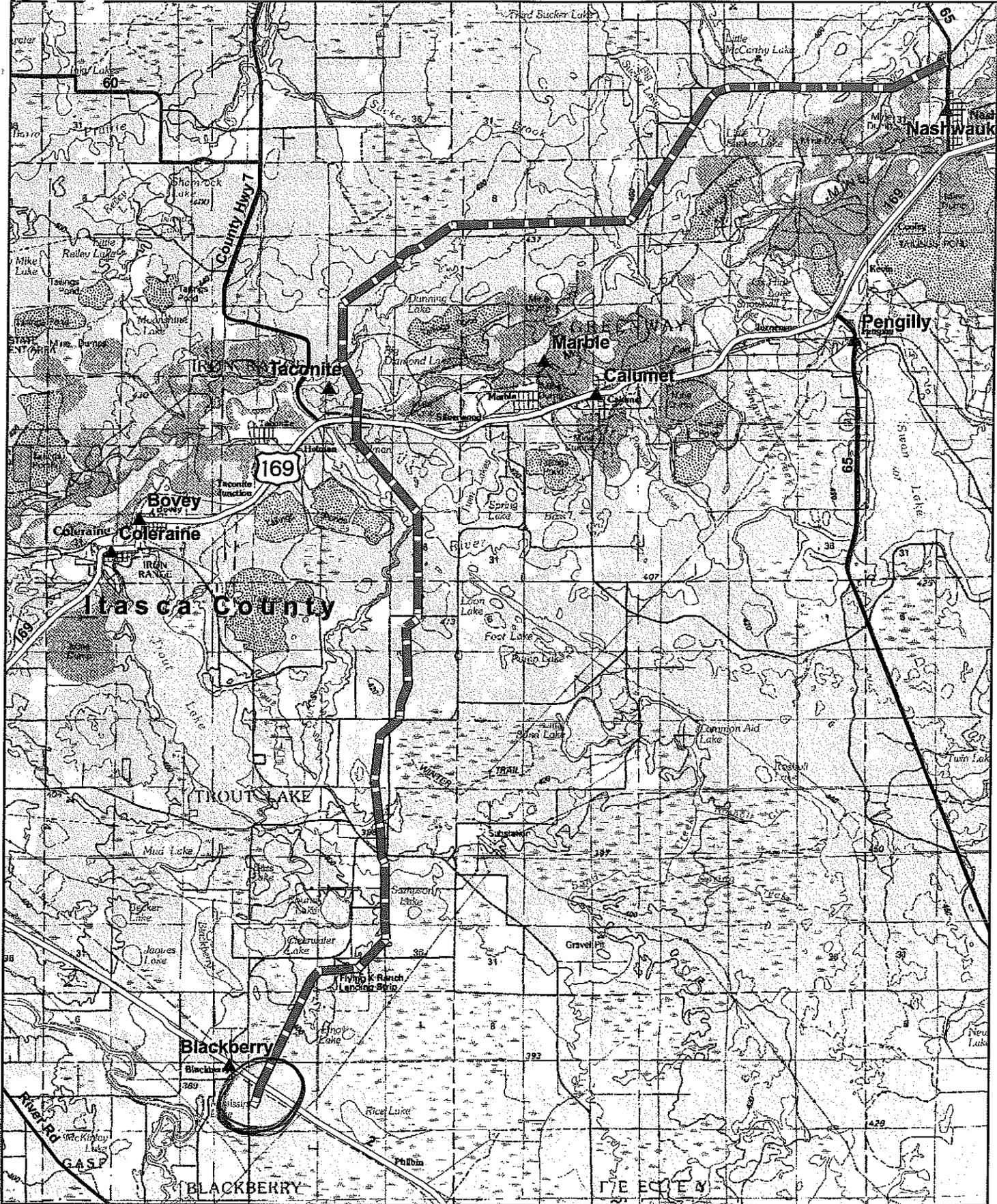
Itasca Geographic Information System
"decision support through automation"

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method or in any form without written permission.

This information is a compilation of
data from different sources with
varying degrees of accuracy and requires
a qualified field survey to verify.

Map Document: (S:\KOWINashua\07\00\GIS\IPUC PERMIT Figure 02 Project Vicinity Map 8-5x11 P.mxd)
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 <p>3535 VADNAIS CENTER DR. ST. PAUL, MN 55110 PHONE: (651) 450-2000 FAX: (651) 499-2150 WATTS: 800-325-2055 www.sehinc.com</p>	<p>City of Nashwauk Public Utilities Commission</p> <p>February 2007</p>	<p>Legend</p> <ul style="list-style-type: none"> ▲ Cities ▬ Nashwak-Blackberry Pipeline □ Counties == U.S. Highways 31 — Other Highways <p>Source: ESRI, USGS, Itasca County, and SEH. © 2007 SEH</p>	<p>Figure 2</p> <p>Project Vicinity Map</p>	 <p>Itasca County - South Coordinate System</p> 
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