



315 1/2 South Minnesota Avenue
Suite 201
St. Peter, Minnesota 56082
Office (507) 934-3411
Fax (507) 934-6675



October 5, 2006

Re: Greater Minnesota Transmission, LLC: Cannon Falls Gas Pipeline Routing Permit Application; PUC Docket No. PL-6580/GP-06-931

Dear Landowner/ Interested Party:

In July 2006, Greater Minnesota Transmission, LLC (GMT) applied to the Minnesota Public Utilities Commission (PUC) for a Gas Pipeline Routing Permit and Partial Exemption from Pipeline Route Selection Procedures. This letter is to inform you that GMT is making several corrections to the application. We believe the corrections are minor. However, we are mailing these corrections to all government agencies, landowners and other interested parties who received the original application, as required by the state pipeline routing rules (Minn. Chapters, Section 4415.0105, Subp. 3). You are receiving these revisions because our records indicate that you received a copy of the original application.

As shown in the attached revised pages, we have clarified that directional drilling will be used under hard-surfaced roads but not gravel roads. The enclosed maps have been revised accordingly. We have also corrected an error regarding the pipeline wall thickness, and made other clarifications. Finally, we have modified the cross-section diagram of the typical open-trench pipeline installation (Figure 2-1) to better reflect how we intend to normally complete this type of installation.

Questions and comments can be directed to GMT President Mychael Swan at (507) 934-3411. Thank you for your consideration of this gas pipeline routing permit application.

Sincerely,

Mychael L. Swan
President
Greater Minnesota Transmission, LLC

1 Introduction

1.1 Overview

Greater Minnesota Transmission, LLC (GMT) is proposing to install a 13.0 mile, ~~16-inch diameter~~ high-pressure natural gas pipeline with a maximum 16-inch diameter in central Dakota County. The proposed pipeline route originates at a new Northern Natural Gas (NNG) town border station (TBS) south of Coates and terminates at the proposed Invenergy Power Plant on the northwest edge of Cannon Falls in Goodhue County. As shown in Figure 1-1, the proposed pipeline route generally parallels U.S. Highway 52 through Vermillion, Hampton, and Randolph Townships in Dakota County and Cannon Falls in Goodhue County. The project title is the Cannon Falls Natural Gas Pipeline Project.

Pipeline Design

The pipeline will be capable of delivering 91,200 dekatherms of ~~odorized~~ natural gas per day (91,200 mcf/d, at 1,026 Btu per cubic foot). The proposed operating pressure will be no less than 650 pounds per square inch (psig) and the pipeline will be designed to a maximum allowable operating pressure (MAOP) of 800 psig. The design criteria for the pipeline also include ~~.325~~.250" pipe wall thickness, less than 50% of specified minimum yield strength (SMYS) operation, Class 3 location design, 16-mil cathodic protection coating with rectifier protection and a single 16-inch mid-line valve for isolation. The primary purpose of the proposed pipeline is to supply natural gas to the proposed Invenergy peaking electric generation plant in Cannon Falls. The pipeline will also include three taps for possible future town border station locations. The permanent easement width will be a maximum of 60 feet, reduced to ~~30~~35 feet where the proposed pipeline parallels Highway 52 and proximity to public rights-of-way allows for such reduction. Finally, the pipeline has a target in service of December 15, 2007 at an estimated cost of \$7.2 million.

Construction Methods

The pipeline would be installed using both open trenching and directional drilling. Directional drilling will be used to cross under the Vermillion River, U.S. Route 52, several hard-surfaced county and township roads, and a tributary to Pine Creek, all with either a minimum of 54" of natural cover or concrete cover. These directionally-drilled sections will account for approximately 0.4 miles (2,200 feet) of the total pipeline length. The remaining 12.6 miles will be open-trench, double ditch excavation with all excavated rock removed and no trees removed.



2 Description of Proposed Pipeline and Associated Facilities

This section provides details of the design of the Project as they are known as of the date this application was prepared. To the extent that there are subsequent design changes, GMT will submit subsequent information filings as required under Minn. Rules 4415.0105, Subp. 3.

2.1 Pipeline Design Specifications

In accordance with Minn. Rules pt. 4415.0120 subp. 1, the following pipeline design specifications are provided for public information purposes.

- A. Nominal pipe size in inches – maximum 16 inches
- B. Pipe type – Steel with welded joints.
- C. Nominal wall thickness in inches – ~~0.325~~250 inches.
- D. Pipe design factor – the entire project is being designed to a Class 3 location design factor of less than 50% of SMYS.
- E. Longitudinal or seam joint factor – 1.00
- F. Class location and requirements – the entire length of the pipeline will be considered Class 3 for design and operation purposes.
- G. Specified minimum yield strength (SMYS) in pounds per square inch – 52,000 psig.
- H. Tensile strength in pounds per square inch – 77,000 psig.

2.2 Operating Pressure

The normal and maximum allowable operating pressures for the pipeline are:

- A. Operating pressure – 650 psig.
- B. Maximum allowable operating pressure – 800 psig



2.3 Associated Facilities

GMT plans to install an above-ground mid-line shut-off valve that will allow future full instrumented internal evaluation of the entire length of the pipeline. A distributed shallow-well rectifier will be installed on a 300 square-foot bed below ground, located near the above-ground midline valve. Above-ground instrument launch and receive stations will be installed at a later date but planned as part of the original pipeline design.

In addition, GMT plans to install three taps for future town border stations along the route. These taps would be installed to allow future distribution of natural gas to a natural gas distribution company purchasing gas from the pipeline. While no specific customers or service areas have been identified at the time of this application filing, GMT is proposing to install the taps as part of the current pipeline project in order to avoid potential additional construction and related impacts in the future.

2.4 Product Description and Capacity Information

The proposed pipeline project will be used to ship natural gas only. Material safety data sheets (MSDS) for natural gas and odorant additive are included in Appendix B.

The planned minimum and maximum design capacities of the pipeline are as follows:

- A. Planned minimum design capacity – At minimum capacity, the pipeline would ship no natural gas. Thus, the minimum planned design capacity is zero (0) thousand cubic feet of natural gas per day (0 Mcfd)
- B. Maximum design capacity – 91,200 thousand cubic feet of natural gas per day (91,200 Mcfd)

2.5 Land Requirements

Estimates of land use requirements are provided as follows:

- A. Permanent right-of-way length, average width, and estimated acreage:
 - a. The total right-of-way length is approximately 13.0 miles. The majority of the pipeline route will be in agricultural land in townships in Dakota County. The permanent easement width will be a maximum of 60 feet, reduced to 30-35 feet where the proposed pipeline parallels Highway 52 and proximity to the public right-of-way allows for such reduction. Estimated acreage within the permanent right-of-way is



78.8 acres. This total does not include the approximately 500-foot portions of the route that will be directionally drilled under the Vermillion River and under Jurisdictional Ditch No.1 (Pine Creek tributary).

- b. Additional right-of-way in the form of road crossing permits will be needed from Mn/DOT for the Highway 52 crossing (250 feet), and for other roadway crossings (60 to 100 feet each).
- B. Temporary right-of-way (workspace) length, estimated width, and estimated acreage:

Permission to use temporary workspace will be obtained from landowners adjacent to the permanent easement rights-of-way. GMT plans to obtain a general right of access to the easement right-of-way, which would include temporary workspace. This area will vary as needed but will average approximately 100 feet. The estimated acreage of temporary workspace is 157.6 acres.

- C. Estimated range of minimum trench or ditch dimensions including bottom width, top width, depth, and cubic yards of dirt excavated:
- a. Estimated trench bottom width – 24 inches
 - b. Estimated trench depth - 80 inches
 - c. Estimated trench top width - 42 inches
 - d. Estimated excavation – 63,555 cubic yards
- D. Minimum depth of cover for state and federal requirements: 54 inches

A typical cross-section for the open trench section of the proposed gas pipeline is shown in Figure 2-1.

- E. The only right-of-way sharing opportunity on the proposed route is along U.S. Highway 52, where the normal 60-foot wide right-of-way could be reduced to ~~30~~35-feet where feasible, as determined in consultation with Mn/DOT during permitting and final design.



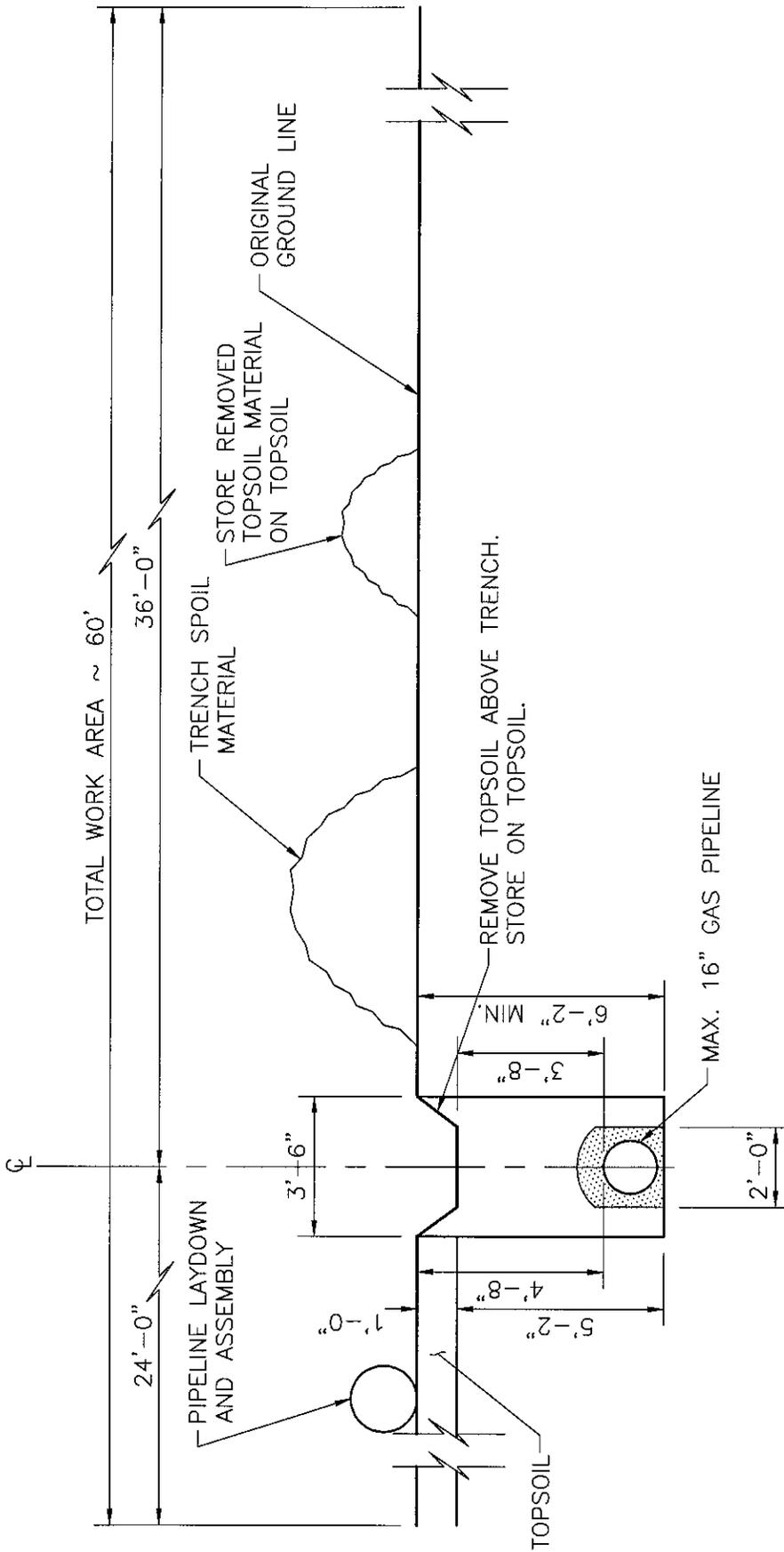


Figure 2-1
 TYPICAL PIPELINE CROSS SECTION—OPEN TRENCH
 Greater Minnesota Transmission, LLC
 Gas Pipeline Routing Permit Application
REVISED October 2006

4 Environment Information

In accordance with the requirements of Minn. Rules 4415.0145 and 4415.0040, this section also presents an analysis of the potential for human and environmental impacts from the Project. The proposed pipeline route requires placement of approximately 13 miles of a maximum 16-inch diameter gas pipeline. Construction of the pipeline will require temporary disturbance to land, crops, and vegetation. GMT will comply fully with the pipeline routing rules (Minnesota Rule 4415.0195) that will apply with right-of-way preparation, construction, cleanup and restoration.

No future pipeline construction is currently planned, although future pipelines may be constructed from one or more of the three taps included as part of this pipeline. If such pipelines are to be constructed in the future, they would be done under separate state or local approvals, as needed. Otherwise, only minimal impacts would be expected due to ongoing pipeline maintenance.

Section 1.5 of this application includes a list of known governmental permits and approvals required for the pipeline project.

4.1 Human Settlement

4.1.1 Existing Environment

The pipeline will be located primarily within private utility easements in Dakota County, crossing roads, the Vermillion River and an extension of a small creek (Pine Creek). This extension is described in this application as Judicial Ditch No. 1. From the north terminus of the project at the NNG town border station, the pipeline will be installed using open-trench construction heading roughly eastward to U.S. Route 52, then turning southeast to parallel the highway for approximately one mile. The pipeline will then be directionally-drilled under U.S. Route 52. From the exit pit of the directional drill, the pipeline will be trenched parallel to the highway for approximately 0.7 mile. It will then be directionally drilled under the Vermillion River at a point just east of the confluence of the river's north and south branches. After crossing the river, the pipeline will be installed using open-trenching along a route that parallels U.S. Route 52 for approximately 1.5 miles, then further away from the highway across open agricultural fields and pasturelands southeasterly toward the southern terminus at the northwest edge of Cannon Falls. Approximately 1.6 miles northwest of the southern terminus, the pipeline will be directionally drilled under Pine Creek.

For most of the route, the pipeline passes through areas that are primarily zoned agricultural, with commercial and industrial zoned areas at the southern terminus (Figure 4-1, Zoning).



There are approximately 40 residences located within the requested ~~500-~~1500-foot pipeline route width.

The major traffic route in the area is US Route 52. The proposed route requires crossing this 4-lane highway only once. Other important area traffic routes include State Highway 50 southeast of the City of Hampton. No railroads or airports will be impacted by the pipeline.

4.1.2 Potential Impacts and Planned Mitigation Measures

There will be minimal impacts to human settlement from the pipeline. All adjacent and intersected streets and highways along the pipeline route will be kept open or will be minimally impacted during construction. In all cases, road crossing permit requirements will be followed. Gravel or other soft-cover roadways crossed using trenching will be restored to preconstruction conditions. Barricades, warning signs and other safety measures will be used to ensure the safety of the public during construction. Around road and driveway crossings, fencing or other types of barricading will be employed to protect public safety. Directional drilling will be used at waterway crossings to avoid wetland impacts.

GMT will consult with and work with affected landowners during permitting, final design, and easement negotiation to avoid and minimize any temporary or permanent impacts to residences, farms, or other business.

As described previously, most of the route crosses cultivated agricultural land. For cultivated agricultural land, a detailed agricultural mitigation plan will be developed as part of the route permit process. A draft agricultural mitigation plan is provided in Appendix C. This draft will be revised in consultation with affected landowners, the Minnesota Department of Agriculture, and other regulatory agencies. See Minnesota Statutes 116C.61, Subd. 3(b).

4.2 Natural Environment

4.2.1 Existing Environment

4.2.1.1 Vegetation and Wildlife

The land use in the area near the proposed pipeline route was originally transition between the eastern hardwood forests and the central prairies (Barbour and Billings 2000). Within the proposed pipeline route, pre-settlement vegetation was determined by local topography and the influence of the Vermillion River.



ditches, the trench will be excavated deep enough to assure a minimum of 54 inches of cover over the pipe. All hard-surfaced road crossings will be bored so that traffic flow will not be disturbed.

In all areas where there is a need to separate topsoil and subsoil, a two-pass trenching method will be used. The first pass will remove topsoil and the second pass would remove subsoil. Soils from each of the excavations would be placed in separate areas. Spoil banks would contain gaps to allow storm water to flow away from the construction area to prevent it from backing up or flooding. Any rocks discovered in the excavation soils over the size of 6 inches will be removed and disposed of in a manner agreed upon between the landowner and the contractor.

5.1.3 Stringing and Bending

To facilitate construction in an efficient manner, pipe will be placed along the right-of-way from a storage area or from the pipe mill, depending on delivery coordination. The pipe will be unloaded from trucks with side booms or cranes either prior to or after ditching.

After the joints of pipe are strung along the trench and before the sections of pipe are joined together, individual sections of the pipe may be bent to allow for a uniform fit of the pipeline with the varying contours of the bottom of the trench and to accommodate changes in alignment. A track mounted hydraulic pipe-bending machine is normally used when installing 16-inch pipe as is being used in this project. The number of degrees of deflection is limited to 1-½ degrees per foot per diameter inch. Greater bends will either be completed in a pipe manufacturing facility or be completed using standard weld fittings.

5.1.4 Line Up and Welding

Installation of the pipe continues with aligning the end bevels of the pipe with a line-up clamp to the proper spacing and alignment. The line-up clamps are held until enough of the weld is completed to assure weld integrity.

Welding is the joining of the individual sections of pipe to form the pipeline. A qualified welder, in accordance with welding procedures qualified to meet applicable code requirements, must perform welding. They must be periodically tested to maintain the formidable qualifications for certification of pipeline welding.

Every weld will be inspected by radiographic examination to determine the quality of the weld. Radiographic examination is a nondestructive method of inspecting the inner structure of the welds to determine if any defects are present. Defects shall be repaired or removed as outlined in



API 1104, the standard for “Welding of Pipelines and Related Facilities” which is incorporated by reference by 49 CFR 192. A certified inspection contractor unrelated to the pipeline construction contractor will perform the weld inspection.

5.1.5 Coating and Lowering-In

After welding is complete, the weld and the area around the weld will be wrapped to protect the pipe from corrosion. Side boom tractors lift the pipe and move it over the open trench. An electronic holiday detector is then used over the pipe to assure that the protective pipe coating is not damaged and will protect the pipe while underground. Any chips, gaps or other areas of inadequate coating are repaired before the pipe is lowered into the trench. When the detector determines the pipe is adequately coated, the pipe is lowered into the trench.

5.1.6 Backfilling and Testing

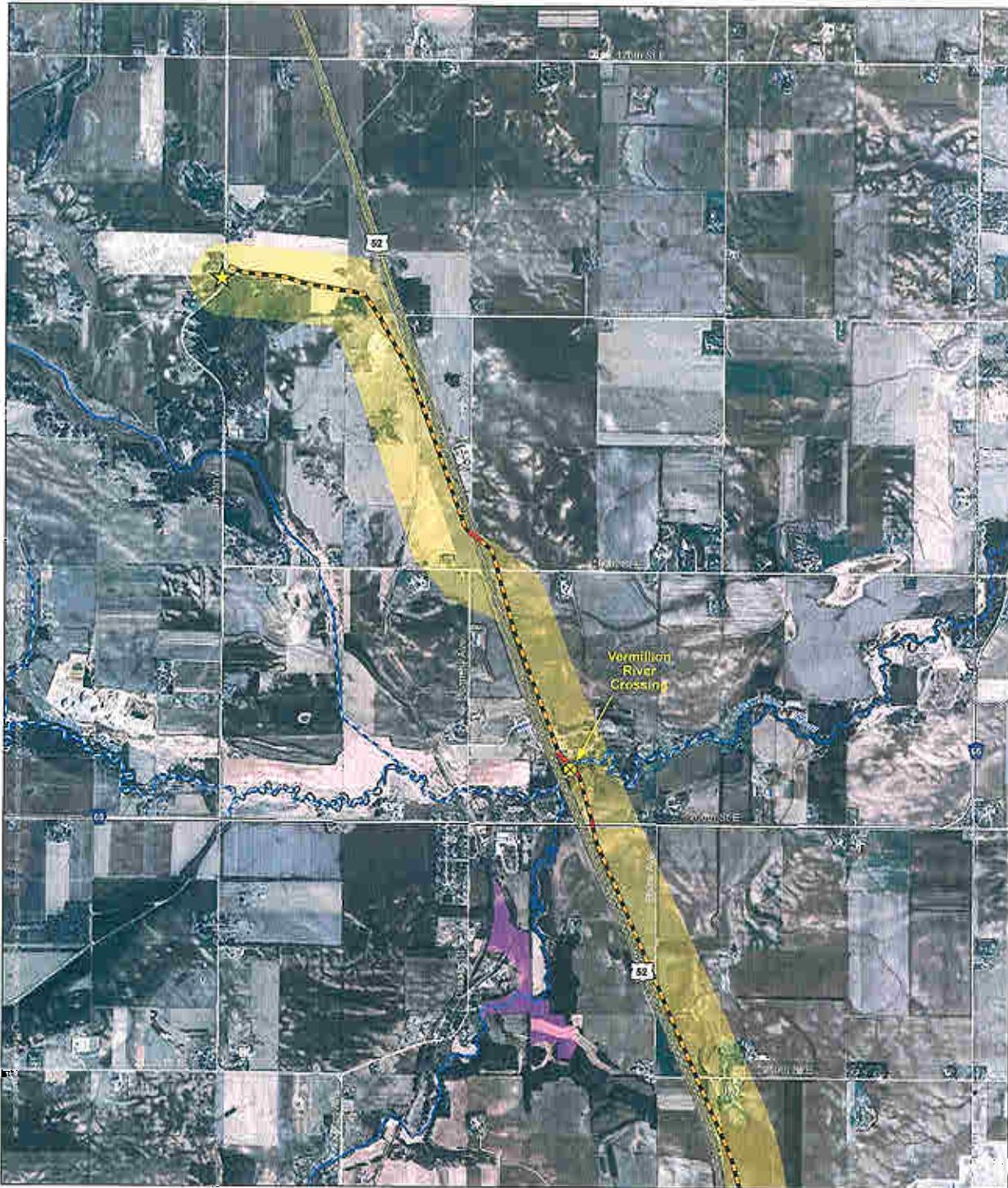
~~After~~Once the pipe has been lowered into the trench, the excavated soil will be filled back into the trench. ~~The operation~~Backfilling methods will be ~~performed in a manner used~~ that will prevent damage to the pipe and coating from either the backfill material or the lowering equipment. ~~Where the ditching process was used to separate~~separated topsoil and subsoil, ~~the backfill is also be installed~~backfilling will proceed by placing the subsoil into the trench prior to placement of the topsoil to maintain the soil segregation. ~~The subsoil~~Subsoil will be compacted to as near as possible to the original density, and the topsoil will be replaced in a manner ~~so as~~ that will not to overly compact the soil. ~~Excess backfill material will be bermed over the ditch centerline to permit natural settling, with the intent so~~ that the final ground elevations will be similar to pre-construction contours.

After backfilling, the pipeline will be tested to ensure the system is capable of withstanding the operating pressure for which it was designed. The pipeline will be filled with nitrogen gas or water and a pressure equal to 1.5 times the design pressure will be maintained for a minimum of eight (8) hours. Test nitrogen will be recaptured after testing is completed. Test water will be collected and disposed of following permitted procedures.

5.1.7 Clean Up and Restoration

The final phase of the pipeline construction is clean up and restoration of the right-of-way. Any surplus materials and construction debris will be removed and disposed of according to permits or local codes. Restoration of the easement rights-of-way surfaces would involve smoothing by chisel plow or disc harrow or other equipment, and stabilization where necessary. The right-of-way will be re-vegetated according to agreement with the landowner or appropriate government





Aerial Imagery: Markhurd April, 2005

- | | |
|-----------------------------------|----------------------------------|
| Preferred Pipeline Route | NWI - Circular 39 Classification |
| Directional Boring Segment | Type 1 - Seasonally Flooded |
| Preferred Route; +/- 500 yd Width | Type 2 - Wet Meadow |
| US Highway | Type 3 - Shallow Marsh |
| State Highway | Type 4 - Deep Marsh |
| County State Aid Highway | Type 5 - Open Water |
| Minor Road | Type 6 - Shrub Swamp |
| Perennial Stream | Type 7 - Wooded Swamp |
| Designated Trout Streams | Type 8 - Bog |
| County Boundary | |
| Municipal Boundary | |

- MN DNR Biodiversity Significance
- Outstanding
 - High
 - Moderate
 - Below



Feet
1,000 0 1,000 2,000 3,000 4,000 5,000 6,000

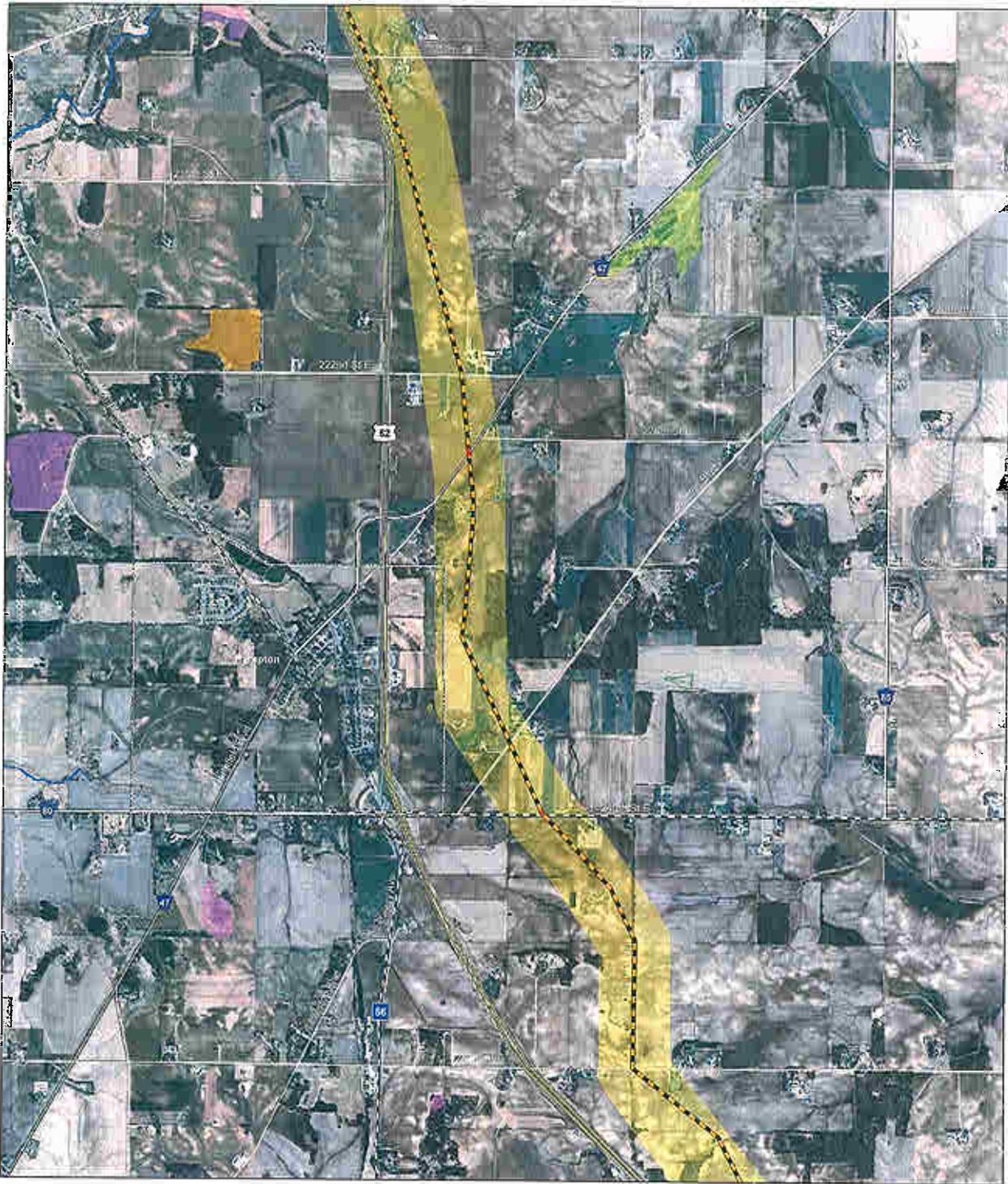
Meters
500 0 500 1,000 1,500



Figure A-1

PROPOSED PIPELINE ROUTE
NORTH TERMINUS TO 210th ST E

Greater Minnesota Transmission, LLC
Cannon Falls Gas Pipeline Routing
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Aerial Imagery: Markhurd April, 2005

- | | |
|-----------------------------------|----------------------------------|
| Preferred Pipeline Route | NWI - Circular 39 Classification |
| Directional Boring Segment | Type 1 - Seasonally Flooded |
| Preferred Route; +/- 500 yd Width | Type 2 - Wet Meadow |
| US Highway | Type 3 - Shallow Marsh |
| State Highway | Type 4 - Deep Marsh |
| County State Aid Highway | Type 5 - Open Water |
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| Perennial Stream | Type 7 - Wooded Swamp |
| Designated Trout Streams | Type 8 - Bog |
| County Boundary | |
| Municipal Boundary | |

- MN DNR Biodiversity Significance
- Outstanding
 - High
 - Moderate
 - Below

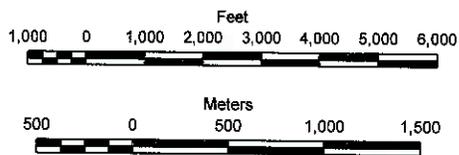
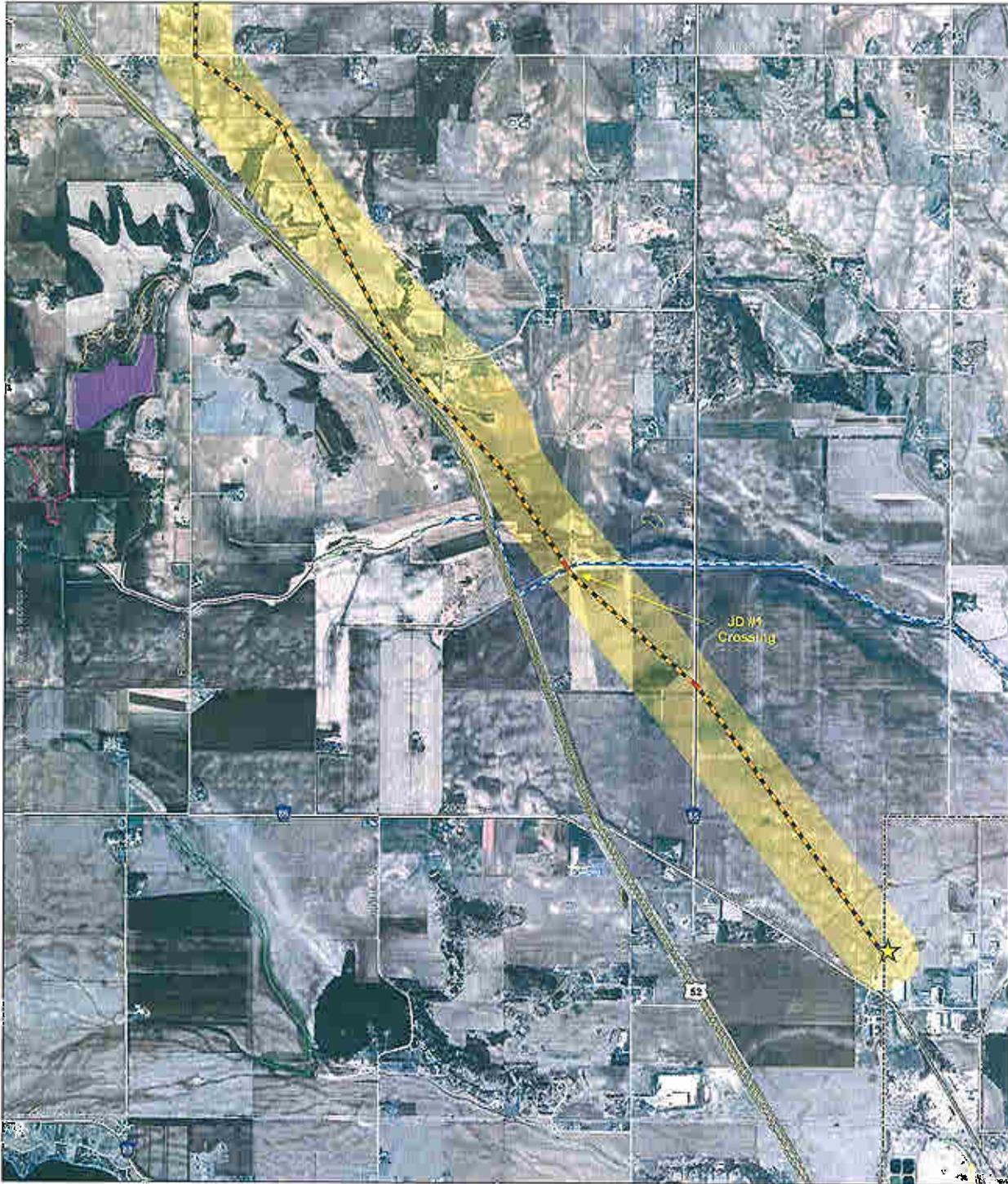


Figure A-2

**PROPOSED PIPELINE ROUTE
NORTH TERMINUS TO 210th ST E**

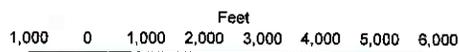
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Aerial Imagery: Markhurd April, 2005

- Preferred Pipeline Route
- Directional Boring Segment
- Preferred Route; +/- 500 yd Width
- US Highway
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- Perennial Stream
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- County Boundary
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- NWI - Circular 39 Classification
- Type 1 - Seasonally Flooded
 - Type 2 - Wet Meadow
 - Type 3 - Shallow Marsh
 - Type 4 - Deep Marsh
 - Type 5 - Open Water
 - Type 6 - Shrub Swamp
 - Type 7 - Wooded Swamp
 - Type 8 - Bog



- MN DNR Biodiversity Significance
- Outstanding
 - High
 - Moderate
 - Below



Figure A-3

**PROPOSED PIPELINE ROUTE
NORTH TERMINUS TO 210th ST E**

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