

From: Fedorchak, Julie L.
Sent: Thursday, April 13, 2017 4:39 PM
To: Hamre, John G. <jghamre@nd.gov>
Subject: FW: Follow up to Commissioner Fedorchak

Hi John – This is additional information I received from MDU prior to them filing case number 17-123. It should be added to the docket. THANKS!
Julie

From: Senger, Garret [<mailto:garret.senger@mdu.com>]
Sent: Thursday, March 30, 2017 12:27 PM
To: Fedorchak, Julie L.
Cc: Fong, Cory
Subject: Follow up to Commissioner Fedorchak

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Good afternoon Julie, I am following up on the questions you had when we met last week regarding the Bobcat pipeline project. See below for the responses to those questions. As you read through the [responses](#) please let me know if you would like to discuss in more detail. We are planning on filing the PCN tomorrow.

In addition, and after some further internal and external conversations following our meeting with you, we've decided against a group briefing with interested legislators tomorrow in exchange for one-on-one visits with them. Cory is going to touch base individually with them beginning tomorrow morning.

Thanks and have a good day.

Match Program Guidelines per the B of ND:

The Match program has been primarily utilized for companies that create new wealth for the state and provide new, or retain existing primary sector jobs that are outside of the retail sector. These companies must have an established long-term credit rating or be able to provide a letter of credit from a financial institution.

The MATCH program at BND has funded utility projects, refineries, expansions for multi-national corporations tied to real estate and equipment, as well as various large agricultural related businesses.

As it relates to BND's approval levels, the loan being contemplated is less than \$15,000,000 which is the internal investment committee threshold, and the loan has an independent repayment source provided by the lease agreement that will be executed and fully supporting debt repayment (US Bank). Based on these facts, this loan would require only investment committee approval.

Overview of Pipe connections:

See the first attachment for a description of the pipe to be used for the project as well as the pipe joining and installation during the construction process.

Map of route options connecting from Alliance:

See the second attachment for route options for the project (red line on map), localized to the area of the pipeline. You will also see the location of the Hutterite colony.

Hutterite usage and use of natural gas:

Based on information received the Hutterite colony's primary usage would be for heating of the chicken barns and grain/corn drying. Their estimated usage is around 25,000 to 30,000 annually. This would make up almost ½ of the additional load to get project volumes to 250,000 dk annually.

Explanation as to why the Alliance tap is so expensive:

We know there is a 30% contingency baked into the \$4.4M Alliance tap cost. Alliance is not the only pipeline that charges these high tap prices. Northern Border is at or above \$3 million, while most bullet pipelines are designed to run at 1440 maximum pressure Alliance's pipeline runs at a higher pressure, somewhere around 1900 psig, so we can expect an additional cost to tap the line and associated higher pressure fittings, pipe, valves, etc. If you added contingency onto Northern Border's \$3 million the cost of Alliance would be about \$500,000 more.

The cost of a WBI tap including MDU owned regulation would be about \$500,000- \$700,000 for a tap this size. The reason that Alliance is so much more expensive is the pressure. WBI operates at much lower pressures, which removes the need for multiple pressure cuts, multiple line heaters, and higher rated equipment.

Historical BTU level of Alliance pipeline:

For the past 12 to 18 months the BTU has been running in the 1120-1150 BTU range and has seemed to stabilize around 1140 in the most recent months.

Garret Senger

Executive V.P. Regulatory Affairs, Customer Service & Gas Supply

MDU Utilities Group

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Bobcat Project

HDPE Pipe

We will be using SDR-11 bimodal HDPE 4710 which has better resistance to slow crack growth and rapid crack propagation than the pipe that you typically find install in North Dakota gathering systems. PHMSA only allows a maximum operation pressure of 102 psi for this pipe and wall thickness, but they have issued a notice of proposed rulemaking that would allow operator to increase the pressure to 125 psi. This pipeline would be pressure tested to run at 125 psi, but operated at 102 psi until the new rule were to go into effect. We also currently have several miles of HDPE distribution systems operating in our service territory.



HDPE Fusion

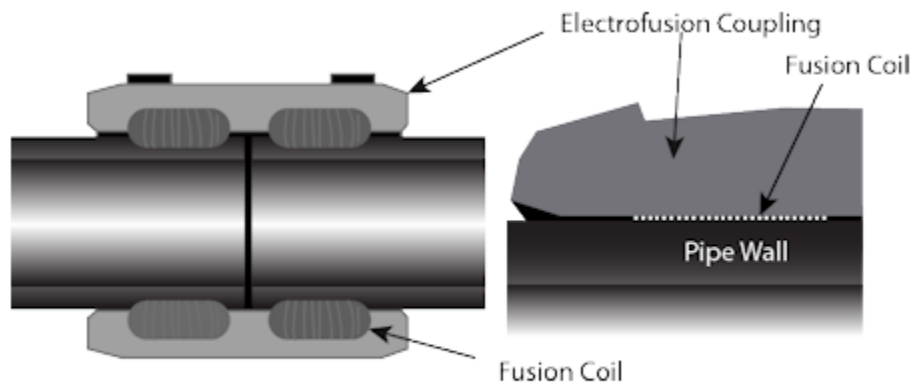
Butt Fusion

Butt Fusion is the process of melting the ends of two pieces of pipe and pressing them together. This will be the most common joining method for the project. The long stretches will be done by an enclosed track mounted unit, while some above ground connections of shorter sections may be made by a smaller machine. This is the same process that we use to install plastic pipe in our in town distribution system. We also currently have several miles of HDPE distribution systems operating in our service territory.



Electrofusion

Electrofusion melts both the pipe and fitting, causing them to fuse together, using an internal electrical heating coil. This method is commonly used for in -ditch tie-ins. This is the same process that we use to do tie-ins in our town distribution systems.



Typical Electrofusion Joint

Typical install from polypipe.org



Install Methods

Spider Plow

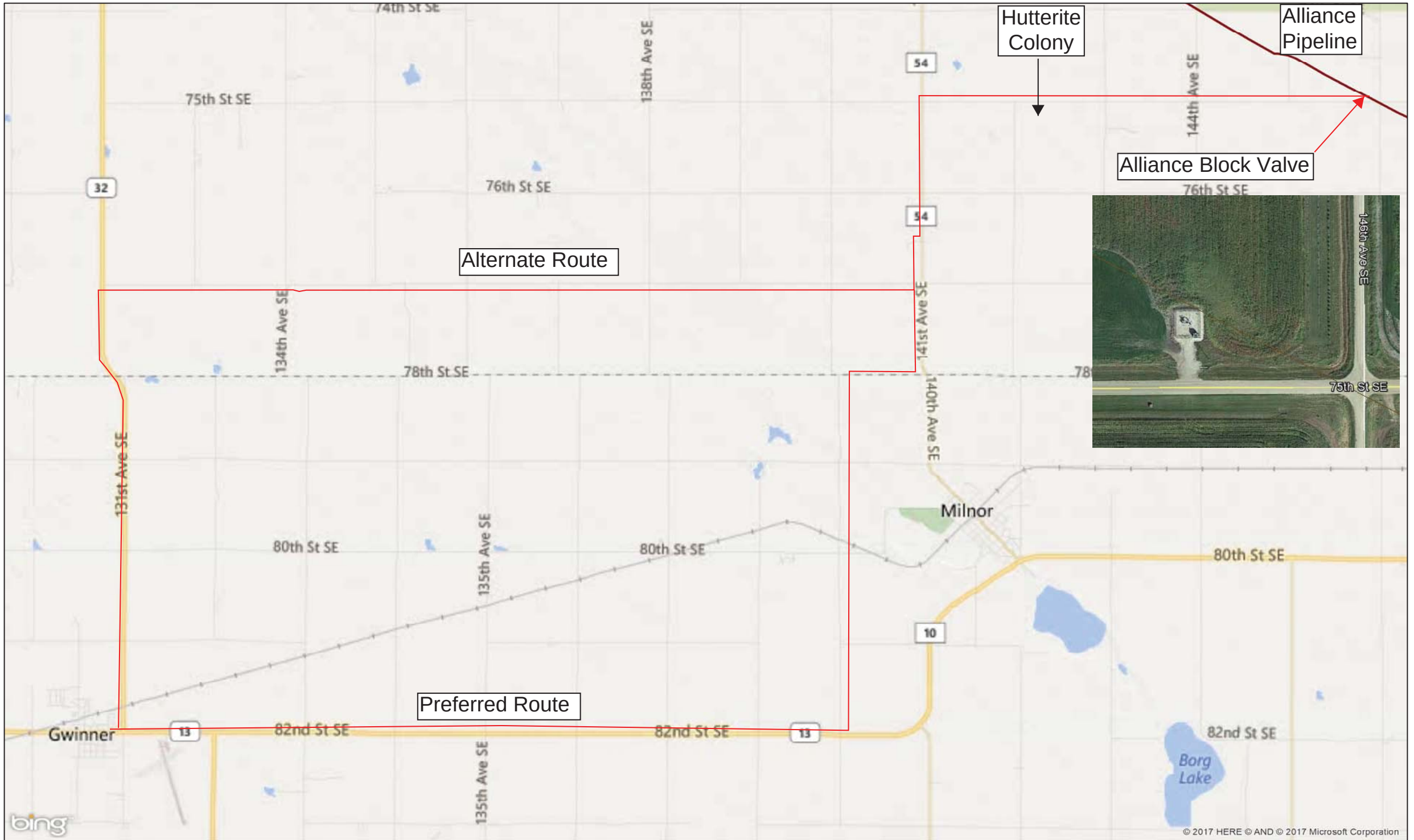
We are planning on using a spider plow for most of the project. This type of installation method reduces the impact of soils and vegetation. This process also greatly reduces the need for cleanup and ROW restoration.

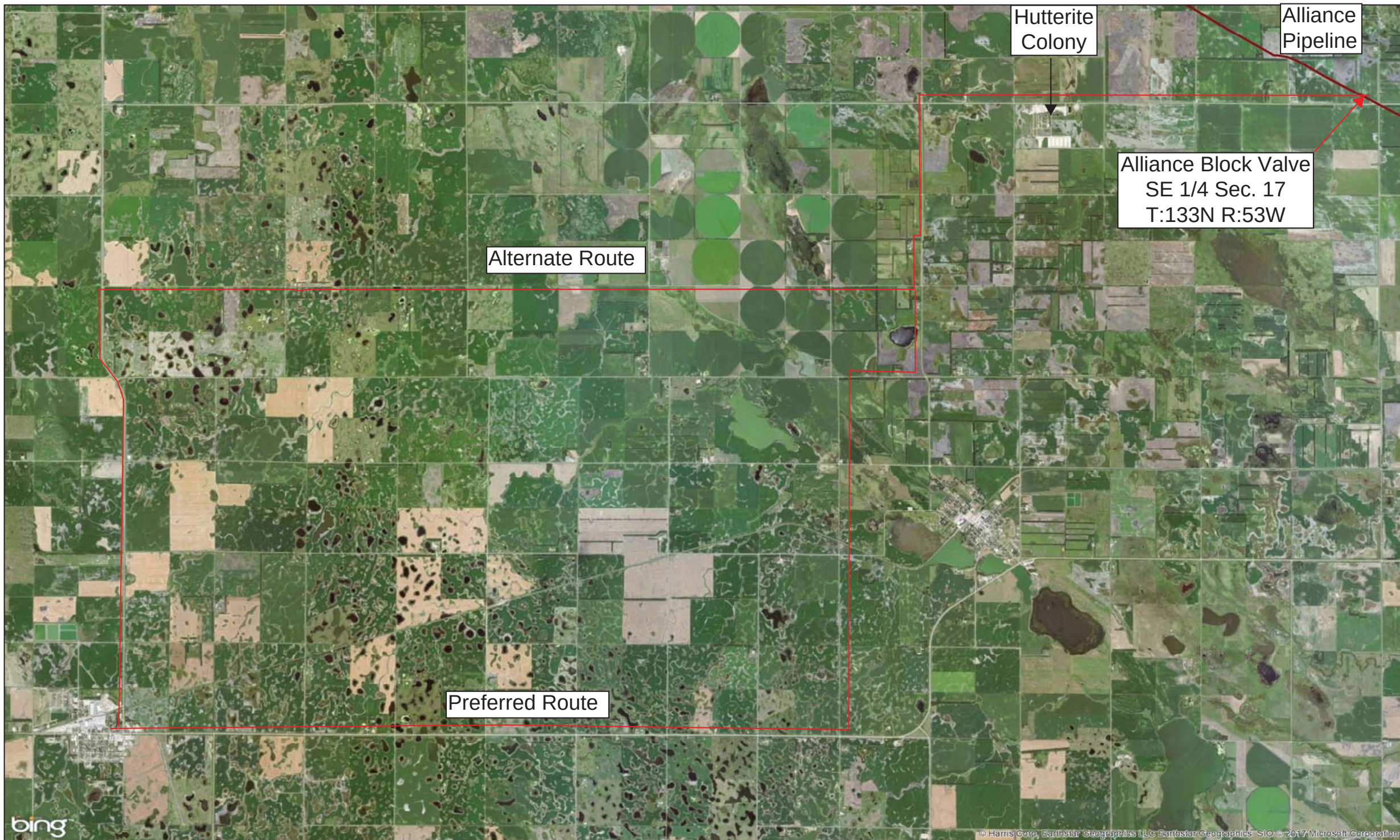


Conventional Trenching

We will have to use convention trenching methods for some portions of the project, such as tie-ins, and sections with utility conflicts. These areas will be restored and seeded at the completion of installation.







Hutterite
Colony

Alliance
Pipeline

Alliance Block Valve
SE 1/4 Sec. 17
T:133N R:53W

Alternate Route

Preferred Route