MINNESOTA PIPE LINE COMPANY, LLC

IN THE MATTER OF THE APPLICATION
FOR A CERTIFICATE OF NEED
FOR THE MINNESOTA PIPE LINE
RELIABILITY PROJECT

BEFORE THE

MINNESOTA PUBLIC UTILITIES COMMISSION

MPUC DOCKET NO. PL-5/CN-14-320

JULY 25, 2014

TABLE OF CONTENTS

Pages

7853.0230 GENERAL INFORMATION SECTION. 1

7853.0240 NEED SUMMARY. 6

7853.0250 SUMMARY OF ADDITIONAL CONSIDERATIONS. 11

7853.0260 CONSERVATION PROGRAMS. 12

7853.0270 OTHER DATA FILED WITH APPLICATION. 14

7853.0510 HISTORICAL ENERGY DATA. 19

7853.0520 FORECAST DATA. 23

7853.0530 DESCRIPTION OF PROPOSED FACILITY. 26

7853.0540 ALTERNATIVES. 32

7853.0600 INFORMATION REQUIRED [ENVIRONMENTAL DATA]. 43

7853.0610 LOCATION. 50

7853.0620 WASTEWATER, AIR EMISSIONS, AND NOISE SOURCES. 60

7853.0630 POLLUTION CONTROL AND SAFEGUARDS EQUIPMENT. 62

7853.0640 INDUCED DEVELOPMENTS. 66

CONCLUSION 68

7853.0230 GENERAL INFORMATION SECTION.

Subpart 1: Contents of Section. Each application shall contain a General Information Section that shall include the following information.

A. Applicant's complete name, address, telephone number, and Standard Industrial Classification Codes.

This application is sponsored by:

Minnesota Pipe Line Company, LLC
P.O. Box 3696
St. Paul, Minnesota 55101
Telephone Number: (855) 510-3647

Standard Industrial Classification Code: 4612

B. The complete name, title, address, and telephone number of the Official or Agent to contact concerning the applicant's filing.

Questions regarding the filing may be directed to the following individuals:

MPL Contact Person

Mr. Jake Reint
P.O. Box 3696
St. Paul, Minnesota 55101
Telephone Number: (855) 510-3647

Attorneys for Applicant

Mr. Eric F. Swanson
Winthrop & Weinstine, P.A.
225 South Sixth Street, Suite 3500
Minneapolis, Minnesota 55402
Telephone Number: (612) 604-6400

C. A brief description of the nature of the applicant's business and products that are manufactured, produced or processed, or of the services rendered.

Minnesota Pipe Line Company, LLC ("MPL") owns a pipeline system that transports crude oil to Minnesota Refineries producing most of the transportation fuels used in Minnesota and contributes to fuel supplies used throughout the Upper Midwest. The crude oil comes from North American sources including Canada and the North Dakota Region and is delivered to the refineries in St. Paul Park and Rosemount, Minnesota.

The MPL System receives crude oil for transport from Canadian and North Dakota sources through connections in Clearbrook, Minnesota. MPL offers transportation services from Clearbrook to shippers of crude oil who request such service and comply with the terms in the applicable tariffs filed with the Federal Energy Regulatory Commission ("FERC") (see Exhibit 1). Currently, JP Morgan Commodities Canada Corporation, as shipper for Northern Tier Energy, LLC's ("NTE") Refinery, and Flint Hills Resources, LP ("FHR") are the only shippers on the MPL System.

MPL is currently the only pipeline system supplying crude oil to the only two refineries in Minnesota; FHR's 339,000 barrels per day refinery in Rosemount, Minnesota and NTE's 96,500 barrels per day refinery in St. Paul Park, Minnesota (collectively, "Minnesota Refineries").

MPL assets are operated by Koch Pipeline Company, L.P. ("KPL"), with its regional northern operations headquartered in Rosemount, Minnesota. KPL operates more than 4,000 miles of pipelines in Texas, Wisconsin, Minnesota, Missouri, Iowa and Illinois transporting crude oil, refined products, ethanol, natural gas liquids, and chemicals.

D. A brief description of the proposed facility, its complete address (if known) or general location, a brief description of its planned use, estimated cost, planned in-service date, and design capacity in gallons (LPG storage), or its maximum design throughput in barrels per day and its size in mbpd-miles (petroleum pipeline).

The proposed MPL Reliability Project ("Project") will increase the pumping capacity of the 305 mile-long MPL Line 4, the newest pipeline on the MPL System, from its current throughput capability of approximately 165,000 barrels per day to its original design capacity of approximately 350,000 barrels per day. The proposed Project would not change the pipeline itself but would change the potential throughput capability to 106,750 barrels per day-miles (350,000 barrels per day x 305 miles). The Project will upgrade two existing pump stations on MPL Line 4 (in Clearbrook and Albany, Minnesota) and install six new pump stations along the current MPL Line 4 route. The new pump stations will be located in rural areas in the counties of Hubbard, Wadena, Morrison, Meeker, McLeod and Scott. No new pipeline will be installed and no new pipeline right-of-way will be acquired for this Project. Please see Section 7853.0530, Subpart 1 and Exhibits 2-9 for more precise details on pump station locations. MPL Line 4 is already capable of handling the additional pumping capacity, so work on these pump stations is the only construction necessary to complete the Project.

The existing MPL System that supplies the Minnesota Refineries operates close to its capacity of 465,000 barrels per day. As such, any temporary planned or unplanned outage on any part of the MPL System threatens the supply of crude oil to the Minnesota Refineries, in turn threatening the supply of transportation fuels and other refined products to businesses and citizens of Minnesota and the region. The Project will benefit Minnesota and the region by helping the refineries producing the majority of Minnesota's transportation fuels and refined products continue to have access to sufficient and reliable crude oil supplies via pipeline, the safest and most efficient oil transportation method. The Project achieves this by giving the MPL System the flexibility to shift volumes to its newest pipeline, MPL Line 4, in the event of an outage on

the pipeline system and allowing MPL to conduct maintenance on other segments of the pipeline without disrupting crude oil supplies to the Minnesota Refineries.

The new pump stations, which will be located on parcels already owned by MPL, will be located in rural areas along the route in Hubbard, Wadena, Morrison, Meeker, McLeod and Scott counties, contributing to the local tax base and economy.

The Project is an estimated $125 million investment in Minnesota and will bring increased property tax benefits to the counties where construction will occur and create about 40 to 50 new construction jobs. MPL also anticipates some permanent jobs will be created.

E. The total fee for the application as prescribed by Section 7853.0210, and the amount of the fee submitted with the application.

The total fee for the application as prescribed by Minnesota Public Utilities Commission ("MPUC") Rules is $14,250.00. Half of this fee ($7,125.00) is submitted with this application.

F. The signatures and titles of the applicant's Officers or Executives authorized to sign the application, and the signature of the preparer of the application if prepared by an outside agent.

This application is submitted for Minnesota Pipe Line Company, LLC by:

Bob O'Hair

Bob O'Hair, President
Minnesota Pipe Line Company, LLC

Eric F. Swanson
Winthrop & Weinstine, P.A.
Attorneys for Applicant

Subpart 2: List of Government Authorities. Each application shall contain a schedule in the General Information Section that shall list all known federal, state, and local agencies or authorities with which the applicant must file for the proposed facility. The following information shall be included on the schedule.

A. The names of all known federal, state, or local agencies or authorities with which the applicant must file.

B. The title of each required permit or certificate issued by the authorities named in response to item A and needed by the applicant.

C. For each permit or certificate listed in response to item B, the date an application was filed or the projected date of future application.

D. For each permit or certificate listed in response to item B, the actual date a decision was made on the application, or the anticipated decision date.

E. For each permit or certificate listed in response to item B for which an application was filed, the disposition or status of the permit or certificate.

Table 7853.0230-A – List of Government Authorities

Table 7853.0230 List of Expected Government Authorities and Titles of Permits/Approvals				
Name of Agency or Authority	**Title of Permit/Approval**	**Projected Date of Application**	**Anticipated Date of Decision**	**Status**
Minnesota Public Utilities Commission	Certificate of Need	July 2014	June 2015	Pending Approval
Minnesota Department of Natural Resources	Water Appropriation Permit General Permit No. 1997-0005 (dewatering and hydrostatic testing)	April 2015	June 2015	Pending Submittal
	State Endangered Species Consultation	TBD	TBD	Pending Consultation
Minnesota Pollution Control Agency	NPDES Construction Stormwater General Permit	April 2015	June 2015	Pending Submittal
	NPDES/SDS Permit (dewatering and hydrostatic test discharge)	February 2015 (renewal and amendment of existing permit – MN0056472)	July 2015	Pending Renewal/Amendment

Table 7853.0230 List of Expected Government Authorities and Titles of Permits/Approvals				
Name of Agency or Authority	**Title of Permit/Approval**	**Projected Date of Application**	**Anticipated Date of Decision**	**Status**
Counties of Clearwater, Hubbard, Wadena, Morrison, Stearns, Meeker, McLeod, and Scott	Conditional Use, Zoning or Building Permits (as required)	1st Quarter 2015	2nd Quarter 2015	Pending Submittal
Townships of Leon, Lake, Alice, Red Eye, Scandia Valley, Krain, Forest City, Helen, and Helena	Township Permits/Approvals (as required)	1st Quarter 2015	2nd Quarter 2015	Pending Submittal
Watershed Districts of Red Lake, Sauk River, and Buffalo Creek	Watershed District Permits/Approvals (as required)	1st Quarter 2015	2nd Quarter 2015	Pending Submittal

7853.0240 NEED SUMMARY.

Each application shall contain a section that summarizes the major factors that justify the need for the proposed facility. The summary shall not exceed, without the approval of the commission, 15 pages in length, including text, tables, schedules, graphs, and figures.

A. General Summary

The Minnesota Pipe Line ("MPL") Reliability Project will increase the pumping capacity on the MPL System's newest pipeline – MPL Line 4 – in order to maintain reliable crude oil supplies to Minnesota Refineries.

MPL is currently the only pipeline system supplying crude oil directly to Minnesota's two refineries: the Northern Tier Energy, LLC's ("NTE") Refinery in St. Paul Park, Minnesota and the Flint Hills Resources, LP's ("FHR") Refinery in Rosemount, Minnesota. These refineries are responsible for producing the vast majority of transportation fuels on which Minnesotans rely, and other essential products such as asphalt and home heating fuels. The refineries also help meet regional demand for these products, supplying significant percentages of the fuels used in surrounding states.

The MPL System is comprised of four pipelines that originate at a crude oil station in Clearbrook, Minnesota. The first pipeline in the system was installed in 1954. A second pipeline was built in the 1970s, and the third in the 1980s. The system was most recently expanded in 2008 with the addition of MPL Line 4 – formerly known as the MinnCan Project.

Today the MPL System has insufficient pumping capacity to maintain reliable crude oil supplies to the Minnesota Refineries.

Since MPL Line 4 ("MinnCan") was built in 2008, both refineries have improved their utilizations and increased their operating capacity which, in turn, has increased demand on the MPL System. Wood River Pipeline, which had been capable of supplying Minnesota Refineries with 90,000 barrels per day of crude oil, also has since been idled, shifting additional demand from the two Minnesota Refineries to the MPL System.

As pipelines age, they also require more frequent inspections and maintenance, and occasionally must be taken out of service for extended periods of time in order to remain in good working condition. The MPL System currently lacks the pumping capacity needed to perform preventative maintenance on segments of the pipeline without disrupting crude oil supplies to Minnesota Refineries. The MPL System also currently has insufficient sprint capacity,[1] which is the ability to transport surplus barrels to refineries when needed to satisfy a sudden increase in demand or to make up for prior production or pipeline outages.

[1] From time to time, refineries will request additional supply of crude oil to make up for temporary shortages in supply or due to increased demand of refined products. This additional requested supply is often referenced as "sprint capacity." The demand of "sprint capacity" on a pipeline system is analogous to "peak demand" in the electrical transmission field.

Supply disruptions caused by system outages, production constraints, or a lack of adequate pipeline capacity can have serious implications for local economies and people's daily lives. For example, in early 2014 a failure of a primary pipeline that supplies natural gas to Minnesota resulted in a sharp increase in prices, product rationing, and a prolonged shortage of home heating fuels. Similarly, in the summer of 2013, a series of regional refinery outages and system constraints caused record high gasoline prices in Minnesota and much of the Upper Midwest.

The continued reliability of the MPL System is critical to maintaining adequate supplies of the fuels Minnesotans and other Midwesterners depend on for transportation, home heating, powering motorized equipment, and numerous other applications.

MPL Line 4 was originally designed with a capacity of approximately 350,000 barrels of crude oil per day, but it currently transports approximately 165,000 barrels per day. The MPL Reliability Project will add six pump stations to MPL Line 4 and upgrade two existing stations to allow the pipeline to operate at its original design capacity. The total volume of crude oil reaching the market isn't expected to change significantly as a result of this Project, but it will give MPL the flexibility to shift volumes to MPL Line 4 as needed to maintain reliable crude oil supplies and meet demand.

The expected maximum operating pressure of MPL Line 4 will not change from its current 1,470 psig as a result of the Project. Rather the pump stations will allow the pipeline to maintain a more consistent pressure across the entire 305 mile pipeline expanse.

The new pump stations will be located in rural areas along the MPL Line 4 route in Hubbard, Wadena, Morrison, Meeker, McLeod and Scott counties. No new pipeline will be constructed and no new right-of-way will be acquired during this Project.

The MPL System is operated and maintained by Koch Pipeline Company, L.P. ("KPL"), which has a best-in-class program to inspect and repair pipelines through proactive reliability strategies. This includes an in-line integrity program and pumping station equipment maintenance reliability programs.

The MPL Reliability Project is an estimated $125 million private investment that will bring increased property tax benefits to the counties where construction will occur. Additionally, 40 to 50 new construction jobs will be created as a result of this Project. MPL anticipates using local contractors, as it does with most projects.

Gasoline, diesel, jet fuel, and other petroleum-based products remain essential to the economy. The MPL Reliability Project is critical to maintaining adequate supplies of these products while maintaining the long-term safety and reliability of the MPL System.

B. Adequacy of Supply to Minnesota Refineries

Currently the two Minnesota Refineries have capacity to run at a production rate of 435,500 barrels per day. At this rate, there is insufficient pumping capacity on the MPL System to maintain reliable supplies in the event of an outage or maintenance on the MPL System or to accommodate an increase in shipper demand.

The MPL System is currently the only pipeline system supplying crude oil to the Minnesota Refineries, which produce most of the transportation fuels and refined products used in Minnesota and contribute to fuel supplies throughout the Upper Midwest. Adequate supply to these refineries is critical to maintaining the stability of Minnesota and the region's fuel supply.

The MPL Reliability Project will increase the pumping capacity on MPL Line 4 by adding six pump stations and upgrading two existing stations. This will allow the pipeline to operate at its design capacity of approximately 350,000 barrels of crude oil per day when needed. This will give MPL the flexibility to shift volumes in the event of an outage on other segments of the pipeline system and allow MPL to conduct maintenance on its other pipelines without disrupting crude oil supplies to Minnesota Refineries.

The actual annual volume reaching the two Minnesota Refineries on the MPL System is not expected to increase significantly as a result of this Project.

C. Reliability of Supply to Minnesota Refineries

Gasoline, diesel, jet fuel, and other petroleum-based products such as asphalt remain essential to the Minnesota economy and the regional economy. Both Minnesota Refineries have improved their utilization and increased their crude oil rates to meet market demand, which has increased demand on the MPL System. With the increase in demand, the MPL System now lacks the pumping capacity needed to perform preventative maintenance without potentially disrupting crude oil supplies to Minnesota Refineries. The MPL System also currently has insufficient pumping capacity to send surplus volumes to refineries when needed to respond to sudden increases in demand or to make up for supply disruptions.

This Project is intended to support the reliability of the MPL System. MPL Line 4 is a newer pipeline that works as part of the MPL System to provide reliable deliveries of crude oil to the market. It also works in conjunction with MPL's Clearbrook Station, which is supplied by a number of other pipelines that contribute to the system's overall reliability.

As pipelines age, they require more frequent inspections and maintenance. The first pipeline in the MPL System was constructed in 1954, the second pipeline was built in the 1970s, the third pipeline was built in the 1980s, and MPL Line 4 was built in 2008. The MPL Reliability Project will allow MPL to shift crude oil to MPL Line 4 so that the other lines can be taken off line for routine maintenance while maintaining reliable crude oil supplies to Minnesota Refineries.

When MPL Line 4 was built in 2008, it was designed to accommodate higher volumes. The pipeline was designed so its pumping capacity could increase to meet future demand without needing to build a new pipeline. Increasing the pumping capacity of MPL Line 4 to its designed capacity will enhance the efficiency of the pipeline and improve the MPL System's ability to reliably and predictably supply the Minnesota Refineries.

Without the Project, it will become increasingly difficult to maintain reliable crude oil supplies to Minnesota's Refineries.

D. Stability of Supply to Minnesota Refineries

Gasoline, diesel, jet fuel, and other petroleum-based products play a vital role in contributing to Minnesota's economic health and social vitality. The state has historically enjoyed a stable supply of these products due to the reliability of the MPL System and the two Minnesota Refineries that produce the majority of the transportation fuels used in the state as well as other essential products such as asphalt and home heating fuels.

Having a reliable fuel supply is also critical to future economic investments in the state. As businesses look to grow or establish a presence in Minnesota, stable and reliable fuel supplies can play an important role in these decisions. Conversely, fuel outages and insufficient supplies that lead to higher prices of essential products like gasoline and diesel can harm a community's marketability.

The MPL Reliability Project will help maintain a stable supply of crude oil in Minnesota, which will allow the Minnesota Refineries to continue meeting demand for transportation fuels and other products. Adequate and reliable crude oil supplies also play an important role in putting downward pressure on gasoline prices.

E. Efficiency of Supply by Use of Existing Pipeline Assets

The MPL Reliability Project will use available capacity on its newest pipeline – MPL Line 4 – to maintain the overall reliability of the pipeline system. MPL Line 4 was originally designed with a capacity of approximately 350,000 barrels of crude oil per day, but is currently transports approximately 165,000 barrels per day. Increasing the pumping capacity of the existing pipeline will provide flexibility to shift volumes as necessary to maintain reliable crude oil supplies to Minnesota Refineries. By adding six new pump stations and upgrading two current stations, MPL will be able to provide a reliable supply of crude oil to Minnesota Refineries.

The Project will also improve the overall efficiency of the MPL System, making better use of an existing pipeline asset rather than building a new pipeline, and providing a shorter, more direct and less costly route to refineries than the alternatives. Shifting volume to MPL Line 4, which is designed to operate more efficiently than the rest of the system, also has the potential to reduce power consumption on a per barrel basis by approximately 37 percent.

F. Benefits to Consumers, Businesses and Communities

The MPL Reliability Project will benefit consumers, businesses and communities by maintaining the continued reliable operation of the MPL System, which is currently the only pipeline system that supplies crude oil to Minnesota Refineries. These refineries produce the vast majority of the transportation fuels and other refined products used in Minnesota and contribute to fuel supplies used throughout the Upper Midwest.

Adequate and reliable crude oil supplies play an important role in putting downward pressure on gasoline prices and contribute to maintaining an attractive business climate and other quality of life measures.

In addition, the MPL Reliability Project is an estimated $125 million private investment that will bring increased property tax benefits to the counties where construction of pump stations will occur. Additionally, 40 to 50 new construction jobs will be created as a result of this Project. The construction work is also expected to contribute to commerce in the host communities such as hotel stays and dining.

The refineries that depend on the MPL System are also responsible for thousands of jobs and are a major source of community investment. The fuels and other products these refineries produce are vital to the economy.

G. Safety, Environmental, and Economic Advantages

Pipelines transport crude oil more safely, effectively and economically and with less impact on communities and the environment than any other transportation method. Unlike transportation by rail or truck, there are virtually no emissions associated with transporting crude oil by pipeline.

Maintaining the safety, integrity and reliability of the pipeline system is a top priority for MPL and Koch Pipeline Company, L.P. ("KPL"), which operates the system. KPL monitors pipelines 24-hours-a-day, seven-days-a-week at its Pipeline Control Center and through regularly scheduled aerial and walking patrols. KPL also performs in-line inspections and pressure testing on a regular basis to maintain the safety and reliability of the systems it operates. The MPL Reliability Project will allow for KPL to conduct maintenance on other segments of the MPL System as needed without disrupting crude oil supplies to the Minnesota market.

KPL has consistently performed in the top tier of pipeline companies with regard to safety and environmental performance. KPL received the highest recognition in its industry when it was awarded the American Petroleum Institute's ("API") Distinguished Award for Outstanding Safety and Environmental Performance in 2010 and 2011 and API's Large Operator Environmental Award in 2010, 2011 and 2012. In addition, KPL has won the Minnesota Governor's Safety Award for exceptional workplace safety performance in 2010, 2011, 2012 and 2013. KPL has also been awarded by the National Safety Council the Occupational Excellence Award in 2011 and the Superior Safety Performance Award in 2012.

The MPL Reliability Project is an estimated $125 million private investment and will bring increased property tax benefits to the counties where construction will occur. Additionally, 40 to 50 new construction jobs will be created as a result of this Project. MPL anticipates using local contractors, as it does with most projects.

7853.0250 SUMMARY OF ADDITIONAL CONSIDERATIONS.

Each application shall contain a section that discusses the socioeconomic considerations listed below. The applicant shall explain the relationship of the proposed facility to each of the following.

A. Socially beneficial uses of the output of the facility, including its uses to protect or enhance environmental quality.

The MPL System supplies virtually all of the crude oil to the Minnesota Refineries, which in turn produce gasoline, diesel, jet fuel, asphalt, and other petroleum products for use in Minnesota and the surrounding region. The Project will provide continued stable, reliable and efficient delivery of crude oil to these refineries, which helps put downward pressure on fuel prices and maintains the availability of numerous products that are essential to society, including gasoline, diesel, jet fuel, propane, home heating fuels, and asphalt.

KPL, the operator of the MPL System, has an Integrity Management Program to help maintain the mechanical integrity of the pipeline systems it operates, comply with applicable laws and regulations, and protect people and the environment while meeting the needs of pipeline shippers and the general public. KPL monitors pipelines 24-hours-a-day, seven-days-a-week at the company's Pipeline Control Center and through regularly scheduled aerial and walking patrols. KPL also performs in-line inspections and pressure testing on a regular basis to maintain the reliability of its systems. These programs assist KPL in protecting the environment by preventing releases, educating the public about pipeline safety, and identifying and implementing improvements to its operations.

B. Promotional activities that may have given rise to the demand for the facility.

No promotional activities by MPL have given rise to the need for the additional pump stations. The Project is supported by MPL's shippers given their need to have continued access to stable, reliable supplies of crude oil.

C. The effects of the facility in inducing future development.

Refineries require access to reliable and economical supplies of crude oil to remain competitive. The continued viability of the Minnesota Refineries provides significant state and region-wide benefits to the general public and the business community.

The Minnesota Refineries invest significant resources into maintaining and improving their operations, which creates thousands of direct and indirect jobs and supports numerous ancillary industries ranging from manufacturers of construction equipment to engineering and design firms. In addition, stable, sufficient supplies of energy products, such as gasoline, diesel, jet fuel and heating oils, play a vital role in contributing to a region's economic health. Areas with reliable supplies of these products are attractive to manufacturing, transportation, and other businesses for whom fuel supply and costs are essential elements of their ability to operate and compete in the marketplace.

7853.0260 CONSERVATION PROGRAMS.

Each application shall contain a section that relates to the conservation of energy. Separate responses are required from each person submitting a joint application.

A. Does the applicant have an energy committee or an individual responsible for determination or coordination of its energy needs?

As part of the operations of the MPL System, there is an Energy Manager whose responsibilities include negotiating energy contracts and assuring efficient and economical use of power throughout the MPL System. The Energy Manager, pipeline and hydraulics engineers, and other operations personnel frequently research and review new projects that may improve energy efficiency on the MPL System.

B. Has the applicant defined energy or conservation goals or objectives?

Electric energy consumption is a significant cost to MPL. Therefore, MPL continually explores ways to improve the efficiency of its operations. One of the goals of this Project is energy optimization of the entire MPL System (for example minimizing electrical energy consumption by proper pump selection and better utilizing the newest and most efficient assets) relative to pipeline throughput requirements.

C. What major energy efficiency or conservation programs has the applicant considered?

MPL incorporates efficiencies and optimization into the design of its System, through proper selection of pipeline diameter, maximum operating pressures, pump station sizing and spacing, selection of high efficiency motors, and using high efficiency pumps. KPL, as the operator of the MPL System, has also recently included variable frequency drives to further enhance the energy efficiency of the systems it operates. In addition to this foundation, KPL operates these pumps along the pipeline in the most energy efficient manner possible. MPL and KPL select the best possible pumps to minimize the cost to shippers. In 2009, when MPL needed an incremental increase in capacity on the MPL System, MPL chose the most energy efficient option by choosing a larger diameter pipeline and variable speed controllers. MPL strives to use industry-leading, state-of-the-art technology when implementing new projects. MPL, where available, minimizes the cost to transport crude oil and optimizes the MPL System by using interruptible power, electrical curtailment programs, load shedding, and on/off peak electrical pricing structures.

D. What major accomplishments in energy efficiency or conservation have been made by the applicant within the past five years?

Since 2009, the first full year that MPL Line 4 was in service, KPL, as the operator of the MPL System, has seen a significant increase in system efficiency with volume transferred from MPL Lines 1, 2 and 3 to MPL Line 4. This is due to larger diameter pipe compared to others in the system and the installation of more efficient pumps and motors. Variable frequency drives have also been used to control station pressures as opposed to mechanical pressure control methods. With the proposed Project, it is anticipated that there will be an estimated 37 percent less energy

required to deliver a barrel of crude oil to MPL shippers on MPL Line 4 versus it being transported on MPL Lines 1, 2 or 3.

E. What major energy efficiency or conservation programs will be implemented within the next five years?

The Energy Manager and hydraulics team are continually optimizing the entire MPL System utilizing hydraulic modeling software and scheduling techniques for the various batches and types of crude oil transported. When implementing any new infrastructure, MPL researches and installs the best available and most efficient technology to optimize the MPL System to reduce the cost to ship on the MPL System and transport the most efficient barrel possible. MPL further drives for efficiencies by collaborating with power providers on projects to review designs and plans to gain their input to achieve optimal efficiencies from both perspectives. Additionally, MPL will optimize the MPL System and move volumes onto MPL Line 4 when possible, taking advantage of the efficiency created through this Project.

7853.0270 OTHER DATA FILED WITH APPLICATION.

In addition to the information required by the Commission, the applicant may desire to file other data. If, in the opinion of the applicant, additional relevant data should be submitted for consideration, such data should be filed in a separate section of the application.

The Commission should consider the following additional factors as it considers this application.

A. KPL, as applicant's operator, has a proven track record and commitment to environmental stewardship and safety.

KPL's environmental and safety performance has consistently been in the top quartile as compared to industry. Since 2010, KPL has had zero lost time incidents and one recordable injury while operating the MPL System. In that same time period, there have been 10 reportable releases to land totaling 5.82 barrels of crude oil. KPL also has been widely recognized for its environmental and safety performance through receiving the following awards:

- American Petroleum Institute ("API") Distinguished Safety and Environmental Award in 2010 and 2011
- API Large Pipeline Operator Environmental Award in 2010, 2011 and 2012
- National Safety Council Occupational Excellence Achievement Award in 2011
- National Safety Council Superior Safety Performance Award in 2012
- Minnesota Governor's Award of Honor in Occupational Safety in 2010, 2011, 2012 and 2013

In addition to complying with the applicable laws and regulations, KPL also embraces safety and environmental excellence as part of its core operating principles. KPL continually seeks to achieve a level of safety and environmental performance on the MPL System that provides superior protection to the environment and the communities in which KPL operates.

B. KPL's experience in all aspects of designing, building, and operating such facilities.

Through operating the MPL System, KPL brings over six decades of pipeline industry experience to its customers and the communities it serves. In each of its communities, KPL strives for excellence in regulatory compliance and in safety and environmental stewardship.

KPL has coordinated and been responsible for the design, construction and operation of 16 pump station projects in the last four years, and currently oversees the maintenance and operation of more than 45 pump stations across the approximately 4,000 miles of pipelines KPL operates. KPL has developed programs and capabilities to maintain the highest standards, including a technologically advanced Pipeline Control Center for remote operations, the Integrity Management Program, and training and public outreach programs. These programs and capabilities are summarized below:

(1) Pipeline Control Center

KPL operates a Pipeline Control Center in Wichita, Kansas, controlling the MPL System along with many other assets. The control center houses the remote operating capabilities for monitoring and controlling pipeline operations. The control center provides a 24-hours-per-day, seven-days-per-week operation with the vision of moving product safely, efficiently and timely to meet the business's needs. The control center's primary responsibilities include:

- Receive, transport and deliver product by remotely operating the assets to meet the business's objectives while protecting the safety of the public and the environment;
- Identify and respond to abnormal and emergency events to avoid or minimize the negative impacts to the public, the environment, employees, and customers;
- Communicate with more than 45 trained KPL operations personnel located at various points along the MPL System whose primary responsibilities are to respond, operate, maintain, and monitor the system at a local level;
- Monitor pipeline operating data, optimize power usage, and respond to the leak detection system;
- Provide a communication "hub" that enables access to internal and external customers and responds to the toll-free "800" emergency calls; and
- Document daily operations and conditions that occur on the systems.

Key components of the remote operating capability include the supervisory control and data acquisition system ("SCADA") system, the leak detection capability, and the communication network. KPL maintains a 24-hours-per-day, seven-days-per-week team to support the components of the remote operating capability. These components are summarized below:

SCADA – This system gathers operating data from the remote locations and displays the data on computer screens that allow pipeline controllers to monitor and control the pipeline operations. This system utilizes third party software customized for KPL operations and MPL System pipelines. The system has multiple levels of redundancy for software and hardware systems.

Leak Detection Capability – The pipeline is monitored to maintain the integrity of the MPL System. The leak detection system utilizes a real time hydraulic model to continuously monitor the system for the possibility of a potential release. This system also includes multiple layers of redundancy. In addition to the technical systems put in place, MPL System operational procedure is industry leading and immediately shuts down the MPL System segment when a leak detection alarm sounds instead of waiting to verify a leak on the MPL System.

Communication Network – KPL owns and operates a primary earth station for satellite communication to transmit and receive operating data to and from the remote field

locations. The communication network has two levels of redundancy. The primary backup system utilizes a redundant earth station located at the satellite service provider's location. A secondary level of communication backup includes existing wide area network ("WAN") circuits, dial-up phone service and/or frame relay services, located at key facilities.

(2) Integrity Management Program

Safety is KPL's first priority. KPL will achieve its goal of protecting the safety of employees, customers, contractors, and the public and protecting the environment by maintaining the mechanical integrity of the pipelines it operates, including the MPL System. The Integrity Management Program defines the processes and procedures KPL utilizes to achieve this goal and comply with applicable laws and regulations. The program supports the integrity of the pipeline assets by addressing topics such as:

- Corrosion prevention;
- Integrity testing and inspection;
- Right-of-way monitoring and assessment;
- Excavation damage prevention; and
- Public and excavation contractor education.

KPL's Integrity Management Program was developed to meet the requirements of the Department of Transportation's Pipeline Integrity Management in High Consequence Areas ("HCA") rule (49 C.F.R. Part 195.452). KPL has identified pipeline sections that could affect a HCA, and has made special considerations in these areas when developing and implementing leak prevention and spill mitigation programs.

The KPL Integrity Management Program includes specific practices and procedures to continually assess and monitor, regularly test and inspect, and prevent corrosion and excavation damage on the MPL System and other operated pipelines. KPL regularly tests and inspects the condition of the pipelines and the effectiveness of day-to-day leak prevention activities, using timely data evaluation, investigation, and corrective action procedures.

The following practices and procedures are among many that KPL has developed to maintain safe and reliable pipeline operations on the MPL System:

- **External corrosion prevention** – An external coating is applied to the outer pipe surface to prevent corrosion at the time of construction. This coating, combined with the application of cathodic protection, minimizes the potential for corrosion. The cathodic protection system is monitored on regular frequencies to safeguard it is functioning properly.
- **Internal corrosion prevention** – Products transported in the pipeline are evaluated to determine the potential for causing internal corrosion. Corrosion

inhibitor chemicals can be injected into the pipeline to prevent corrosion. Routine maintenance pigging is also used for internal cleaning to prevent corrosion.

- **Integrity testing** – KPL regularly performs internal in-line inspections of the MPL System and the pipelines it operates to evaluate the condition of the pipeline and effectiveness of corrosion prevention activities. High resolution in-line inspection equipment (smart pig), capable of detecting corrosion and dents, is used to inspect the pipelines. Inspection data is evaluated and indications of corrosion or dents that could affect the integrity of the pipeline are investigated.

- **Prevention of Damage by Excavation** – This process includes procedures for receiving notifications of potential excavation activity near MPL's pipeline systems, field evaluation, line marking, and inspection of excavation activity near the pipeline. KPL actively supports and participates with Gopher State One Call and other organizations to provide excavation damage prevention education.

- Right-of-way conditions are evaluated by routine aerial and walking patrols. Surveys are conducted to evaluate changing conditions on the pipeline right-of-way, which can include erosion, soil subsidence, and unauthorized excavation or construction activity.

- KPL regularly evaluates and assesses the implementation of its practices and procedures to support consistent application and identify improvement opportunities. KPL enlists its own auditors and subject matter experts, along with independent auditors to perform evaluations and audits. The MPL System is regularly inspected by state and federal agency inspectors.

- KPL actively supports and participates with Gopher State One Call and partners with other organizations to provide damage prevention education and pipeline awareness key messages. Over the last several years, KPL's Northern Operations Group, which supports the operation of the MPL System, has added seven additional Damage Prevention Coordinators in the field to further manage excavation damage risk, educate stakeholders, and positively influence excavator digging behaviors. A few other enhancements to KPL's Damage Prevention Program are:

    - An Agricultural Program to identify and manage agricultural-related risk of damage to the pipeline.

    - A New Neighbor Program to identify and educate new neighbors along the MPL System.

    - Increased pipeline surveillance during the excavation season through weekly aerial patrols and increased ground patrols.

    - Over 1,000 marker posts added to the MPL System in Minnesota.

- Collaboration with stakeholders in seeking, identifying and implementing "Call Before You Dig – Dial 811" educational opportunities.

(3) Public Outreach

KPL has a public awareness program that communicates pipeline safety information to individuals near the MPL System and other company pipelines and facilities. This program provides pipeline damage prevention and emergency response information to pipeline neighbors (those living, working or meeting near company assets), excavators (those in construction and other earth moving professions and activities), emergency response agencies (fire, law enforcement, regulators, etc.), and local public officials (those who govern areas where pipelines are located and who have government authority on land use). These ongoing communications, both written and oral, emphasize compliance with excavation laws (Call Before You Dig) and actions to take in the event of a pipeline or facility emergency (Recognize, React and Report). In 2014, KPL mailed 210,000 pipeline safety brochures to the four Minnesota audience groups. To date in 2014, the company has made over 1,500 face-to-face contacts with pipeline neighbors and excavators to protect people, the environment, and property. Additional targeted communications have been made to approximately 4,000 stakeholders in Minnesota to date in 2014. Additionally, company representatives annually contact emergency response agencies to provide detailed information on recognizing a pipeline emergency and suggested response actions. These activities are supplemented by the company website, www.kochpipeline.com, which provides the company's toll-free, 24-hour emergency telephone and online information on damage prevention and emergency response. In addition, MPL maintains a company website, www.minnesotapipeline.com, containing information concerning projects, damage prevention, emergency response, and contact information.

C. The economic benefits of the Project.

This Project will serve as an economic stimulus, and is expected to provide these benefits:

- Estimated $125 million investment and will bring increased property tax benefits to the counties where construction will occur.
- About 40 to 50 new construction jobs will be created.
- Utility investments for the construction of power infrastructure to serve the new pump stations are estimated to be over $35 million.
- Help the refineries producing the majority of Minnesota's transportation fuels and refined products continue to have access to sufficient and reliable crude oil supplies. These refineries are a major source of jobs and community investment.
- Approximately $2.5 million in annual state and local tax revenues.
- Apply downward pressure on fuel prices and contribute to a healthy economy.

7853.0510 HISTORICAL ENERGY DATA.

Subpart 1: Products, Usage, and Suppliers. For the geographical area to be served by the proposed facility, the applicant shall provide the following.

A. A list of the petroleum products by major categories (such as crude oil, gasoline, fuel oil, and so forth) transported or distributed by the applicant in that geographical area during the five most recent calendar years.

The pipelines owned by MPL transport crude oil to refineries in Minnesota.

B. For each category listed in response to item A and for each of the five most recent calendar years, a list of the annual and peak day quantities transported or distributed in the appropriate units of measure.

The MPL System has transported crude oil as shown in Table 7853.0510-A.

Table 7853.0510-A

Year	Barrels Per Year	Barrels Per Day - Peak
2009	110,313,846	394,768
2010	116,837,021	414,241
2011	120,192,389	420,058
2012	125,120,303	401,558
2013	125,769,479	412,791

C. A list of sources of supply of petroleum products for transportation or distribution during the five most recent calendar years, designated as either in-state or as out-of-state, the dates and durations of the contracts with the 25 largest suppliers or shippers, the categories of petroleum products and quantities involved, and for sources of crude oil, the geographical areas of origin of the crude oil.

For the past five years, the primary sources of crude oil transported through the MPL System have been from Canadian and North Dakota sources through MPL's connections to Enbridge pipeline systems in Clearbrook, Minnesota.

Shippers on the MPL System nominate supply with Enbridge for the transportation of crude oil from Enbridge pipelines, originating from Canadian and North Dakota sources. There are not any contracts related to shipments between MPL and its shippers on the MPL System. Shippers on both systems make monthly nominations to each system according to the provisions in each company's published tariff accepted by FERC.

D. For each of the five most recent calendar years and for each category of petroleum product, the percentage of in-state delivery of the annual amounts given in response to item B.

All of the volumes for MPL in item B., above, were in-state deliveries to the Minnesota Refineries owned by Northern Tier Energy, LLC or Flint Hills Resources, LP.

Subpart 2: Facilities; Maps. List each large oil or LPG storage facility location, gas plant, large pipeline facility, and oil refinery associated with the transportation or distribution of the categories of petroleum products named in response to Subpart 1, item A. Provide maps that represent the locations and interconnections of these facilities.

- Storage and pumping facility at Clearbrook, Minnesota owned by Enbridge
- Crude oil pipeline owned by Enbridge
- Storage and pumping facility in Clearbrook, Minnesota owned by MPL
- Crude oil pipelines and pumping stations owned by MPL
- Crude oil pipeline connecting the Cottage Grove Station to the Flint Hills Resources, LP Refinery
- Storage facility at Cottage Grove, Minnesota owned by MPL
- Northern Tier Energy, LLC Refinery, St. Paul Park, Minnesota
- Flint Hills Resources, LP Refinery, Rosemount, Minnesota

(See Exhibit 10 for Map of Existing Facilities.)

Subpart 3: Use of Design Capacity. For each large energy facility or location listed in response to Subpart 2, located in Minnesota and owned or operated by the applicant, provide the average percentage of use of its full design capacity during the summer season and during the winter season.

(1) Storage and Pumping Facility in Clearbrook, Minnesota, Owned by MPL

Clearbrook Station consists of:

- Eleven tanks with 1,750,000 barrels of storage
- Metering facilities
- The initial pump station for the pipeline

Dependent upon shipper requests for batch blends, changes in delivery schedules, and operational needs to take tanks out of service for normal maintenance and integrity testing, the station capacity moves from sufficient to near maximum capacity.

The average percentage of use of the Clearbrook Station is approximately 49 percent, or approximately 858,000 barrels out of the 1,750,000 barrels of storage capacity. An alternative measure for storage utilization is the number of times a tank turns over its volume in a given time period. The storage tanks in Clearbrook turn over between 8 to 9 times each month, on average.[2]

(2) Crude Oil Pipeline Owned by MPL

Full design capacity is influenced by the characteristics of the crude oil to be transported. The table below summarizes utilization levels based upon current full design capacity and peak daily demand.

Table 7853.0510-B

Year	Annual Utilization Based on Full Design Capacity	Utilization Based on Peak Daily Demand
2009	65%	85%
2010	69%	89%
2011	71%	90%
2012	74%	86%
2013	74%	89%

Variations in use of full design capacity between the summer and winter seasons are not driven by seasonality. Shippers nominate to system capacity and find alternatives for additional volumes or reduce production.

The current design capacity does not provide the system reliability required to allow a line to be taken out of service for inspection maintenance or repair without impact to shippers / refiners and consumers of refined products.

(3) Storage Facility in Cottage Grove, Minnesota, Owned by MPL

Cottage Grove Station consists of:

- Three tanks with 350,000 barrels of storage
- Metering facilities

Increases in the amount of storage owned by the refiners have reduced the utility of the storage at Cottage Grove. The storage is used to provide operational flexibility for shippers if necessary and surge relief for the pipeline.

[2] Both "percentage use" and "turn over" are based on the twelve months ended June 30, 2014.

The average percentage of use of the storage at Cottage Grove Station is approximately 57 percent, or approximately 200,000 barrels out of the 350,000 barrels of storage capacity. The storage tanks in Cottage Grove turn over approximately one time every two months, on average.[3]

[3] Both "percentage use" and "turn over" are based on the twelve months ended June 30, 2014.

7853.0520 FORECAST DATA.

For the geographical area to be served by the proposed facility, the applicant shall provide the following.

A. A list of the categories of petroleum products the applicant expects to transport or distribute in that geographical area during the first six forecast years, the 11th forecast year (the 10th year after the year of the application), and the 16th forecast year.

MPL expects to transport crude oil as defined in MPL's tariff, for all the years listed.

B. For each category of petroleum product listed in response to item A and for each of the first six forecast years, the 11th forecast year, and the 16th forecast year, a list of the annual and peak day quantities expected, using the appropriate units of measure.

Table 7853.0520-B illustrates that when MPL's Line 1 or Line 2 is taken out of service for maintenance and/or repairs:

1. The MPL System currently lacks the pumping capacity to meet (a) expected average daily demand and (b) expected peak daily demand; and

2. The Project provides sufficient pumping capacity to meet (a) expected average daily demand and (b) expected peak daily demand, while providing some "sprint" or "make-up" capacity to provide a buffer against pipeline outages upstream of the MPL System's origin in Clearbrook, Minnesota.

Note that the forecast figures presented in the "Annual Barrels/Day" and "Peak Daily Barrels" columns on the left side of the table below were provided by the Minnesota Refineries the MPL System serves.

Table 7853.0520-B

			Available Current Capacity* Without MPL Line 1 or MPL Line 2		Available Capacity* Without MPL Line 1 or MPL Line 2 After Project's Completion	
Year	Annual Barrels/Day	Peak Daily Barrels	Annual Barrels/Day	Peak Daily Barrels	Annual Barrels/Day	Peak Daily Barrels
2015	360,000	493,000	-5,000	-138,000	180,000	47,000
2016	385,000	493,000	-30,000	-138,000	155,000	47,000
2017	390,000	500,000	-35,000	-145,000	150,000	40,000
2018	385,000	500,000	-30,000	-145,000	155,000	40,000
2019	385,000	505,000	-30,000	-150,000	155,000	35,000
2020	395,000	505,000	-40,000	-150,000	145,000	35,000
2024	400,000	515,000	-45,000	-160,000	140,000	25,000
2029	400,000	515,000	-45,000	-160,000	140,000	25,000

* Calculations are shown without the capacities associated with MPL Line 1 or MPL Line 2 for illustrative purposes to show potential capacities available in situations where MPL Line 1 or MPL Line 2 are out-of-service for maintenance/repair purposes.

C. A discussion of the methods, assumptions, and factors employed for purposes of estimation in response to items A and B.

Support for the throughput assumptions is based on anticipated refinery demand as provided by the Minnesota Refiners, Flint Hills Resources, LP and Northern Tier Energy, LLC. Support for the availability of the crude oil is based upon forecasts provided by the Canadian Association of Petroleum Producers ("CAPP") and the North Dakota Pipeline Authority.

CAPP forecasts Western Canadian crude oil production to grow steadily from approximately three million barrels per day in 2012 to approximately 6.7 million barrels per day in 2030. The increase in production is driven by the multi-billion dollar capital investment producers are making to develop crude oil resources in Western Canada.

CAPP projects the primary target market for new Canadian production is the Midwest and Gulf Coast regions of the United States, providing the Central United States with a stable, secure crude oil supply for the future.

In addition to Canadian crude oil, MPL transports crude oil originating from the Williston Basin (primarily the North Dakota Region). Production in the North Dakota Region has increased sharply over the last several years and continued growth is expected. The North Dakota Pipeline Authority forecasts Williston Basin crude oil production will grow from 0.9 million barrels per day in 2013 to over 1.4 million barrels per day by 2019. The North Dakota Pipeline Authority's Williston Basin production forecast is in line with other forecasts created by reputable firms with knowledge of the industry.

D. A discussion of the effect on the forecast of possible changes in the key assumptions and key factors requested in item C.

Possible differences to the forecasts provided relative to the Minnesota Refineries' crude oil demand could be driven by changes in transportation fuel demand in Minnesota and the surrounding states, the addition or loss of refining capacity elsewhere in the marketplace, or unforeseen changes to the Minnesota Refineries.

Crude oil availability could be delayed due to resource constraints to expand production or a major reduction in crude oil prices. However, Minnesota Refineries are expected to still have access to whatever production materializes from Western Canada and the North Dakota Region due to their proximity to these resources relative to other refineries capable of supplying Minnesota and the surrounding states with transportation fuels.

E. Considering the forecast, a discussion of other facilities, if any, planned by the applicant to supply the forecast demand.

No additional facilities are planned.

7853.0530 DESCRIPTION OF PROPOSED FACILITY.

Subpart 1: Design. The applicant shall provide the following information pertaining to the design of the proposed construction of a large petroleum pipeline:

A. If known, the complete name and address of the engineer and firm to be responsible for the design.

Engineering work is being performed by a third party – Burns & McDonnell Engineering Company, Inc., 9400 Ward Parkway, Kansas City, Missouri 64114. Burns & McDonnell Project Manager /Lead Engineer, Laura Girard.

B. The estimated tariffs, capital cost, annual operating and maintenance costs, and economic life.

The MPL System is an interstate common carrier of crude oil with rates, tariffs, and accounting practices subject to the regulatory authority of FERC. The rates for the Project will be filed in accordance with applicable FERC rules and regulations, and accepted by FERC.

MPL's current tariff from Clearbrook to the Minnesota Refineries is $1.52/bbl. MPL estimates the incremental tariff necessary to support the Project could be up to $0.25/bbl. The actual published tariff will be dependent on expected final costs for construction of the Project, estimated operating costs for MPL in 2018, and the Project's ultimate in-service date.

The estimated capital cost for the Project is $125 million. Operating and maintenance costs for the MPL System will increase by $1-2 million after the Project's completion due to the personnel and material costs associated with maintaining six additional pump stations.

The economic life of the Project is greater than 30 years.

C. A list of the categories of petroleum products the large pipeline is intended to transport.

The pipeline currently transports crude oil; the addition of pumps stations is not intended to change the petroleum products transported on the line.

D. It's initial and ultimate design capacities in barrels per day, its diameter, length in Minnesota, maximum number of pumping stations in Minnesota, and nominal station spacing.

MPL Line 4 is 24 inches in diameter and runs approximately 305 miles. Its initial design capacity was approximately 350,000 barrels per day. It was constructed with two pump stations that limit the pumping capacity to 165,000 barrels per day. One of the existing two stations is at the beginning of the pipeline in Clearbrook, Minnesota, the other at the midpoint, mile post 152 in Albany, Minnesota. The line ends at a "receiving station" in Rosemount with connections to customers/shippers in Rosemount, Minnesota. This Project would add six new stations to result in a system with station spacing of approximately 38 miles. With MPL Line 4 setup in this manner, the line would have the ability to transport the approximately 350,000 barrels per day

for which the line was designed. It is important to note that the actual capacity of the line is dependent on the physical characteristics of the crude oil being shipped (viscosity, specific gravity, etc.).

See Exhibits 11-18 for station locations:

Clearbrook Station (existing, to be upgraded)
Mile Post (MP) 0
46729 179th Ave
Clearbrook, Minnesota 56634
Site size: 235 acres

Laporte Station
Mile Post (MP) 36
Site size: 10 acres
Lat. 47.208607
Long. -95.135754

Sebeka Station
Mile Post (MP) 74.6
30737 139th Ave
Menahga, Minnesota 56464
Site size: 40 acres

Fish Trap Station
Mile Post (MP) 113
Site size: 9 acres
Lat. 46.210223
Long. -94.645982

Albany Station (existing, to be upgraded)
Mile Post (MP) 152.4
38096 State Hwy 238
Albany, Minnesota 56307
Site size: 5.5 acres

Forest City Station
Mile Post (MP) 191
Site size: 10 acres
Lat. 45.188036
Long. -94.422109

Plato Station
Mile Post (MP) 228
Site size: 38 acres
Lat. 44.796557
Long. -94.029793

St. Patrick Station
Mile Post (MP) 264
Site size: 74 acres
Lat. 44.569959
Long. -93.529753

E. Engineering data, including the following.

(1) A pipeline system map showing the route, mileage, location of pumping stations, mainline valves, petroleum storage facilities, and interconnections.

See Map attached as Exhibit 10.

(2) Specifications for pipe (diameter, length, wall thickness, grade) and valves (diameter and American National Standards Institute rating) with the maximum allowable operating pressure for each.

No new right-of-way is required for the Project and no new pipeline will be used for the Project beyond that necessary to connect the pump stations to the existing MPL Line 4 infrastructure. Initial engineering for the pump stations indicates that primary pipe components for station work will be 24-inch diameter API 5L X70, .350" wall thickness. API 6D valves will be used. Piping, valves, and other components will be designed to match the existing line maximum operating pressure of 1,470 psig.

(3) For the pumps, representative specifications including diameter, allowable maximum operating pressures, and maximum capacities.

Initial engineering for the 24-inch diameter pumps indicates that (3) 4,000 horsepower API 610 centrifugal pumps will be required to achieve approximately 350,000 barrels per day pumping capacity with a maximum operating pressure of 1,470 psig. Final design, yet to be completed, will dictate the actual pump characteristic and pumping capacity; however, maximum pumping capacity is expected to be approximately 350,000 barrels per day with a total of 12,000 horsepower per station.

(4) For the prime movers, representative specifications, including type, allowable maximum power capacity in horsepower, efficiency, allowable maximum and minimum operating temperatures, and energy requirement in Btu per barrel per mile of petroleum product pumped.

Initial design efforts indicate that the pump portion of the prime mover (pump) will be approximately 85 percent efficient. The prime mover will be driven by a 4,160-volt electric motor estimated to be 95 percent efficient. Pump motors will be started with a variable frequency drive ("VFD") to increase efficiencies. Pump station output pressure will be controlled by VFD rather than mechanically for further efficiencies. Future detailed design work is expected to result in motor efficiencies up to 97 percent. The pumps will operate in ambient temperature conditions with a design range of -20F to 100F. At full load, the energy requirement

of a pump station will be 51 Btu/barrel mile based on 12,000 horsepower, 350,000 barrels per day transported and stations at approximate 38-mile intervals.

Subpart 2: Construction. The applicant shall provide the following information pertaining to the proposed construction of the facility.

A. If known, the complete name and address of the company to be responsible for the construction.

With the Project in the initial design phase, contractor(s) have not been selected to perform the various aspects of construction work. Qualified contractors with a strong safe work history will be requested to bid the work. MPL anticipates using local contractors, as it does with most projects.

B. The proposed date for commencement of construction and the proposed in-service date.

With major work pending approval of the Certificate of Need process, a construction start date is dependent on the approval date. For planning purposes, January 1, 2016, is targeted as a start date with a full in-service date in the fourth quarter of 2017. Contingency plans may be employed to start construction sooner should the Certificate of Need be granted within the period of one year from application.

C. An estimate of the in-service date if the construction were to be on a fully expedited basis.

Fully expediting the construction by working all sites concurrently could reduce the construction time frame by approximately nine months; however, the overall schedule is dependent on the start time and the amount of winter construction required to achieve the Project timelines. Some of the stations may be expedited and some others take more time due to the timing of availability of electric power at the remote station locations.

Subpart 3: Operation. The applicant shall provide the following information pertaining to the operation of the proposed facility.

A. The expected average percentage of use of the full design capacity of the proposed facility during each of the first five years of operation.

Expected average utilization figures (following the Project's execution) are summarized in the Table 7853.0530, Subpart 3(A). To better understand capacity relative to peak demand, please refer to Table 7853.0520-B.

Table 7853.0530, Subpart 3(A)- Expected Average Utilization

	Expected Average Throughput (bpd)	Capacity Post-Project (bpd)	Expected Average Utilization	Capacity Post-Project w/ Maintenance* (bpd)	Expected Average Utilization w/ Maintenance*
2018	385,000	650,000	59%	540,000	71%
2019	385,000	650,000	59%	540,000	71%
2020	395,000	650,000	61%	540,000	73%
2021	395,000	650,000	61%	540,000	73%
2022	395,000	650,000	61%	540,000	73%

* Certain maintenance or repair events require the temporary removal of a pipeline from service. The "Capacity Post-Project w/ Maintenance" and "Expected Average Utilization w/ Maintenance" columns attempt to illustrate capacity and utilization in situations where either MPL Line 1 or MPL Line 2 are temporarily removed from service, either of which would result in total system capacity being reduced by approximately 110,000 bpd.

B. The expected maximum operating pressure and capacity of the proposed facility at peak demand.

The expected maximum operating pressure of the existing line will not change from the current 1,470 psig as a result of the pump station installation. At full utilization during peak demand the maximum pumping capacity of the line will be approximately 350,000 barrels per day.

C. The expected power requirement from the prime movers at each station at peak demand (in kilowatts, thousands of cubic feet per hour, or gallons per hour).

The two upgraded and six new pumping stations on MPL Line 4 will be positioned for hydraulic balance, essentially creating similar flow and pressure requirements at each station. This will also lead to similar electrical loading requirements at each station. The expected electric power requirement of each new and upgraded pump station at peak demand would be 9005 kW at a delivery rate of 612,500 gallons per hour.

D. A list of expected sources of supply or shippers of petroleum products for transportation during the first five calendar years of operation, designated either as in-state or as out-of-state, the expected dates and durations of the contracts with the 25 largest suppliers or shippers, the categories of petroleum products and quantities expected to be involved, and for sources of crude oil, the expected geographical areas of origin of the crude oil.

Enbridge-owned pipelines are the sole transportation source for crude oil to the MPL System. The crude oil transported by Enbridge originates in Canada and the North Dakota Region, where producers are developing crude oil resources. MPL's shippers currently, and are expected to continue to, utilize Enbridge-owned pipelines for the transportation of crude oil to MPL's Clearbrook Station.

There are no expected out-of-state shippers and historical and current MPL in-state shippers, J.P. Morgan Commodities Canada Corporation (shipping on behalf of Northern Tier Energy, LLC) and Flint Hills Resources, LP, are expected to utilize the crude oil transportation capacity provided by this Project, under the conditions established in MPL's FERC-approved tariff. No additional crude oil supply or shipping contracts are in effect with any other entity.

E. A list of expected recipients of transported petroleum products during the first five calendar years of operation, designated either as in-state or as out-of-state, the expected dates and durations of the contracts with the 25 largest recipients, and the categories of petroleum products and quantities expected to be involved.

There are no expected out-of-state recipients. In-state crude oil recipients from MPL – Flint Hills Resources, LP and Northern Tier Energy, LLC – are expected to utilize capacity on the upgraded MPL System. The amount of such usage will vary between the current MPL Line 4 pumping capacity of approximately 165,000 barrels per day and the expected future pumping capacity of approximately 350,000 barrels per day. Utilization of MPL Line 4 will be dependent upon repair and maintenance activities on MPL's other pipelines, refinery demand, and crude oil types desired by the Minnesota Refineries.

Other than the normal conditions as established in the published MPL FERC-approved tariff, no additional supply or shipping contracts are in effect with any entity.

7853.0540 ALTERNATIVES.

The applicant shall provide information pertaining to the alternatives that have been considered, and the information shall be presented in the following format.

A. A description of the alternative, including:

(1) A discussion of the design and the geographical area affected.

(2) An estimate of the in-service date.

(3) A discussion of the method of operation.

(4) Its cost.

(5) Its economic life.

(6) Its reliability.

The Project will increase the pumping capacity of MPL Line 4 by up to approximately 185,000 barrels per day via the construction of six new pump stations and the upgrading of two existing pump stations along the existing route. As discussed during the original permitting of MPL Line 4, this pipeline was designed with an initial pumping capacity of approximately 165,000 barrels per day and an ultimate design pumping capacity of approximately 350,000 barrels per day, attainable upon the addition of pumping horsepower at eight locations across MPL Line 4's route. Expansion to the ultimate design pumping capacity of approximately 350,000 barrels per day is now being proposed through this Project. MPL designed and constructed Line 4 in a manner that it can provide this additional pumping capacity without constructing new pipelines or acquiring additional right-of-way.

The Project is needed to maintain the reliable supply of crude oil to Minnesota Refineries that produce the majority of transportation fuels used in Minnesota and contribute to the fuel supplies of the surrounding states. Currently, Minnesota Refineries together have a capacity to run at a daily production rate of 435,500 barrels per day. If MPL needed to temporarily take a pipeline out of service (e.g., for a maintenance or repair activity), the MPL System lacks the pumping capacity to meet demand and maintain uninterrupted supply. Moreover, while MPL does not anticipate a significant near-term increase in crude oil demand, it expects both refineries will continue to become more efficient and improve their utilization rates, which will ultimately drive higher peak daily demand requirements.

MPL investigated a number of alternatives before determining that the Project was the most economic and feasible approach available to provide the incremental pumping capacity necessary to maintain reliable transportation infrastructure to supply the Minnesota Refineries. MPL has found that the addition of six pump stations and upgrades to two existing pump stations is the most efficient, economical, and environmentally responsible way to maintain reliable crude oil supplies to Minnesota Refineries.

Non-Pipeline Alternatives

No Action Alternative

A. A description of the alternative.

The MPL System is comprised of four pipelines that originate at a crude oil station in Clearbrook, Minnesota. The first pipeline in the system was installed in 1954. A second pipeline was built in the 1970s, and the third in the 1980s. The MPL System was most recently expanded in 2008 with the addition of MPL Line 4.

Since MPL Line 4 was built in 2008, both refineries have improved their utilizations and increased their operating capacities, which in turn has increased demand on the MPL System. Wood River Pipeline, which had been capable of supplying Minnesota Refineries with 90,000 barrels per day of crude oil, also has since been idled, shifting additional demand to the MPL System.

As pipelines age they also require more frequent inspections and maintenance, and occasionally must be taken out of service for extended periods of time in order to remain in good working condition. The MPL System currently lacks the pumping capacity that is needed to perform preventative maintenance on segments of the pipeline without disrupting crude oil supplies to Minnesota Refineries. The MPL System also currently has insufficient sprint capacity, which is the ability to transport surplus barrels to refineries when needed to satisfy a sudden increase in demand or to make up for prior production or pipeline outages.

Therefore, MPL believes the "no action" alternative is not viable due to the fact that if a line would need to be taken out of service for maintenance, the remaining lines would not be able to meet the Minnesota Refineries' current or expected future demand.

(1) A discussion of the design and geographical area affected:

N/A

(2) An estimate of the in-service date:

N/A

(3) A discussion of the method of operation:

N/A

(4) Its costs:

N/A

(5) Its economic life:

N/A

(6) Its reliability:

"No action" is not a viable alternative. Reliable crude oil supply to the Minnesota Refineries is critical to maintaining the adequate production of transportation fuels and other essential refined products, which are relied upon throughout the state of Minnesota and the Upper Midwest. A shortage in the production of transportation fuels and other essential refined products has the potential to place a burden on Minnesotans through higher prices and product shortages.

Truck Alternative

A. A description of the alternative.

Facilities could be constructed to facilitate the movement of crude oil from Clearbrook, Minnesota to the Minnesota Refineries via truck.

(1) A discussion of the design and geographical area affected:

A fleet of approximately 1,058 trucks would be required to transport 185,000 barrels per day of crude oil[4] from Clearbrook, Minnesota to MPL's destinations in the Twin Cities, as estimated below:

Computation of Trucking Requirements

Crude oil volume = 185,000 barrels per day

Capacity per truck = 175 barrels per truck

Number of trucks required = 185,000 / 175 = 1,058 trucks per day

Assume in-transit full (1/2 day), in-transit empty (1/2 day), includes loading/unloading time

Number of trucks in transit = 1,058 x 1/2 day = 529 trucks

Number of trucks returning empty = 1,058 x 1/2 day = 529 trucks

Total truck requirements = 529 + 529 = 1,058 trucks
(ignoring scheduled/unscheduled downtime)

To accomplish the movement of 185,000 barrels per day of crude oil by truck, significant loading and offloading facilities would have to be

[4] 185,000 barrels per day represents the incremental increase in pumping capacity expected by executing the Project.

constructed at MPL's Clearbrook Station and MPL's destinations in the Twin Cities. Given the higher truck traffic volume such an alternative would generate, it is likely that material upgrades to, and ongoing maintenance of, roadways along the route would be required, and all such expenses would be most likely borne by the public.

(2) An estimate of the in-service date:

MPL does not know if the number of trucks required is available, nor does MPL have an estimate on the time it would take to manufacture them. Moreover, MPL does not have an estimate of the time required to construct the necessary loading and off-loading facilities.

(3) A discussion of the method of operation:

Neither MPL nor the Minnesota Refineries currently have the infrastructure or capability to load the required volumes of crude oil by truck.

A trucking operation such as the one outlined in this alternative would require a significant workforce to allow for the continual delivery of up to 185,000 barrels of crude oil to the Minnesota Refineries each day. In addition to drivers, personnel would be required to operate the loading and unloading facilities. The net effect of increased infrastructure and a larger workforce translates into higher transportation costs, increased environmental and safety risks, and the possibility of higher transportation fuel costs for Minnesota residents and businesses.

(4) Its costs:

MPL does not currently possess a trucking capability and is not aware of the costs associated with creating one to facilitate the movement of up to 185,000 barrels per day of crude oil supply between Clearbrook, Minnesota and the Twin Cities. MPL estimates that it would cost between $7.50 and $9.25/bbl to truck crude oil between Clearbrook and the Twin Cities. This estimate does not include capital recovery on the infrastructure required at both ends of the movement. Between the costs of constructing the necessary facilities and hiring the labor required to execute, MPL is confident that the Project offers shippers a lower-cost[5], more efficient alternative to obtaining crude oil supply. Furthermore, MPL does not have a point of view on the impact that this amount of truck traffic would have on the roadway infrastructure between Clearbrook Station and the Twin Cities. Although precise quantification of the traffic

[5] MPL estimates that the incremental tariff associated with the Project will be no more than $0.25/bbl — keeping the total MPL tariff between Clearbrook, Minnesota and the Twin Cities below $2/bbl — a figure that compares favorably to a trucking alternative.

impact is not known, the incremental truck traffic is estimated at up to 588,000 highway miles per day (1,058 truck fleet x 556 miles round trip between Clearbrook and Cottage Grove, Minnesota), which is significant in MPL's estimation.

(5) Its economic life:

The truck loading and unloading facilities would have an estimated economic life of at least 20 years. With the mileage that the trucks would incur in steady service, MPL estimates that the trucks' economic life would not exceed five years.

(6) Its reliability:

According to the Bureau of Transportation Statistics, trucks have a significantly higher accident rate than pipelines.[6] In addition to the safety risks inherent in crude-by-truck transportation, truck reliability is affected by weather conditions, mechanical reliability, labor shortages, and road maintenance/closures.

MPL believes that crude oil transportation by truck cannot effectively compete with pipelines for volumes over long distances because of the operations and facilities required to sustain operations of this scale.

Rail Alternative

A. A description of the alternative.

Facilities could be constructed to facilitate the movement of crude oil from Clearbrook, Minnesota to the Minnesota Refineries via rail.

(1) A discussion of the design and geographical area affected:

This alternative would require the construction (by MPL or the Minnesota Refiners) of a significant rail car loading facility in Clearbrook, Minnesota and large off-loading facilities in the Twin Cities. As part of such an alternative, construction of new lateral above-ground rail service lines would be required and would possibly pose additional risk and impact to landowners, the environment, and the public.

[6] See Bureau of Transportation Statistics, Table 2-3; Transportation Accidents by Mode, http:/www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_02_03.html.

A fleet of approximately 2,357 rail cars would be required to transport 185,000 barrels per day of crude oil[7] from Clearbrook, Minnesota to MPL's destinations in the Twin Cities, as estimated below:

Computation of Rail Car Requirements

Crude oil volume = 185,000 barrels per day

Capacity per rail car = 600 barrels per rail car

Crude oil volume / capacity per rail car = 309 rail cars

Number of days per month = 30.5 days per month

Rail cars delivered at destination per month = 9,425 rail cars

Turns per month = 4 turns per month

Number of rail cars required = 2,357 rail cars

(2) An estimate of the in-service date:

MPL does not know if the number of rail cars required is available, nor does MPL have an estimate on the time it would take to manufacture them. Moreover, MPL does not have an estimate of the time required to construct the necessary loading and off-loading facilities.

(3) A discussion of the method of operation:

Neither MPL nor the Minnesota Refineries currently have the infrastructure or capability to load the required volumes of crude oil by rail.

A rail operation also would require a significant workforce at the loading and off-loading facilities to allow for the continual delivery of up to 185,000 barrels of crude oil to the Minnesota Refineries each day.

(4) Its costs:

MPL does not currently possess a rail capability and is not aware of the costs associated with creating one to facilitate the movement of up to 185,000 barrels per day of crude oil supply between Clearbrook, Minnesota and the Twin Cities. MPL estimates that it would cost approximately $8/bbl to rail crude oil between Clearbrook and the Twin Cities. This estimate does not include capital recovery on the infrastructure required at both ends of the movement. The net effect of

[7] 185,000 barrels per day represents the incremental increase in pumping capacity expected by executing the Project.

increased infrastructure and a larger workforce translates into higher transportation costs, increased environmental and safety risks, and ultimately, higher transportation fuel costs for Minnesota residents and businesses. Between the costs of constructing the necessary facilities and hiring the labor required to execute, MPL is confident that the Project offers shippers a lower-cost[8], more efficient alternative to obtaining crude oil supply.

(5) Its economic life:

The rail loading and unloading facilities would have an estimated economic life of at least 20 years. With the mileage that the rail cars would incur in steady service, MPL estimates that the rail cars' economic life would not exceed 10-15 years.

(6) Its reliability:

A rail operation such as the one outlined here would be much less reliable than the Project. The rail alternative would be subject to weather-related delays, delays caused by scheduling conflicting rail traffic, and a significant mechanical/maintenance requirement exposure based on the number of rail cars involved in the operation. Additionally, rail transportation has a significantly higher accident rate than pipelines.[9] Finally, while the transporting of crude oil by rail has increased in the United States due to the immediate need for transportation capacity, the cost of moving crude oil by rail is significantly higher than an equivalent pipeline movement (estimated at $8/bbl for rail between Clearbrook and the Twin Cities vs. less than $2/bbl via pipeline).

System Alternatives

New Pipeline Alternative

A. A description of the alternative.

A new 24-inch diameter pipeline could be constructed to accommodate a 165,000 barrels per day increase in daily pumping capacity to maintain reliable crude oil supply to the Minnesota Refineries in the event that one of MPL's existing pipelines had to be taken out of service for maintenance or repairs. Note, however, that this alternative provides less pumping capacity than the Project (165,000 barrels per day vs. 185,000 barrels per day). As a result, the amount of

[8] MPL estimates that the incremental tariff associated with the Project will be no more than $0.25/bbl - keeping the total MPL tariff between Clearbrook, Minnesota, and the Twin Cities below $2/bbl - a figure that compares favorably to a rail alternative.

[9] See Bureau of Transportation Statistics, Table 2-3; Transportation Accidents by Mode, http:/www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_02_03.html.

"sprint" or "make-up" capacity afforded by this alternative is 20,000 barrels per day less than that provided by the Project.

(1) A discussion of the design and geographical area affected:

A new pipeline would most likely run parallel to Line 4. However, new line rights would need to be acquired for the MPL Line 4 right-of-way south of the spilt of MPL Line 4 away from the other MPL Lines which are north of Little Falls, Minnesota. New right-of-way would need to be acquired to parallel a new pipeline beside MPL Line 4 from the split to the Twin Cities, likely resulting in substantial cost to MPL and inconvenience to landowners. New pipeline construction would require excavation of the existing right-of-way and modification of existing pump stations. The new pipeline would be approximately 305 miles long, between Clearbrook, Minnesota, and the Twin Cities.

A new pipeline, however, would require major construction across a good portion of Minnesota, the impact of which would be significantly greater than that of the construction associated with the Project (construction of six pump stations and the upgrading of two existing pump stations).

(2) An estimate of the in-service date:

MPL believes that the in-service date of such a project would be later than that estimated for the Project. The ultimate in-service date for this alternative would be dependent upon the timing associated with the receipt of permits among other things.

(3) A discussion of the method of operation:

This alternative would be operated in the same manner in which the existing MPL System is operated. Nominal incremental resources would be required to facilitate this alternative's operation.

(4) Its costs:

The approximate cost for a new pipeline from Clearbrook to the Twin Cities is estimated to exceed $600 million, which is materially higher than the cost of the Project.

(5) Its economic life:

The economic life for this alternative would be similar to that of the Project, which is at least 30 years.

(6) Its reliability:

The reliability for this alternative would be similar to that of the Project. As noted earlier, however, this alternative provides less pumping capacity than the Project (165,000 barrels per day vs. 185,000 barrels per day). As a result, the amount of sprint capacity afforded by this alternative is 20,000 barrels per day less than that provided by the Project—meaning that the crude oil supply to the Minnesota Refineries is moderately less reliable under this alternative than the Project.

Non-System Alternative

Wood River Pipeline

A. A description of the alternative.

KPL owns and operates Wood River Pipeline ("WRPL"), a 580-mile pipeline system originating in the Hartford, Illinois, area and terminating in the Twin Cities. Historically, WRPL has been utilized by Minnesota Refineries to supply crude oil from Western Canada or the Rocky Mountain Region via the Express and Platte Pipelines. The pipeline is no longer in service for crude oil shipments and as an alternative does not deliver sufficient volumes of crude oil to Minnesota Refineries. Crude oil volumes delivered via WRPL are also less efficient and more costly than what currently can be delivered through the MPL System.

(1) A discussion of the design and geographical area affected:

WRPL was de-inventoried of crude oil and taken out of crude oil service in 2013 because of insufficient shipper demand due primarily to the (a) longer transit time associated with sourcing crude oil on the pipeline and (b) inferior pricing of crude oil accessible to WRPL relative to crude oils accessible to MPL. Therefore, WRPL is not a practical alternative to the Project.

When WRPL was in operation, its capacity was 90,000 barrels per day, which does not meet the level of incremental crude oil supply Minnesota Refiners require and that the Project provides.

Aside from WRPL's hydraulic constraints, several market conditions make utilizing WRPL for Minnesota Refineries supply unattractive.

- The crude oil and transportation are more costly than utilizing the MPL System, due largely to the fact that crude oil must travel a significantly longer distance if WRPL were utilized vs. MPL.

- Supplies are not as reliable or ratable due to declining availability of pipeline space to supply WRPL from crude oil sources in Western Canada and the Rocky Mountain Region.

- Higher supply costs have the potential to hurt Minnesota Refiners' viability vs. other refiners in the region, discouraging future investment in the Minnesota facilities.

(2) An estimate of the in-service date:

WRPL is currently out of service; however, to place it back into service, there would need to be adequate shipper demand to maintain continual movements of at least 30,000-40,000 barrels per day. Moreover, shippers would need to provide the inventory, or linefill, to fill the line with crude oil, the amount of which is not insignificant—over 1.2 million barrels (excluding any inventory at tank farms in Hartford, Illinois, and/or Bethany, Missouri). Assuming shipper demand was such to satisfy the commitments above, KPL estimates the line could be placed back into service in 1-2 years.

(3) A discussion of the method of operation:

This alternative would be operated in a similar manner to which the existing MPL System is operated. Additional resources would need to be hired to operate the system.

(4) Its costs:

The annual costs to operate WRPL would range between approximately $20-$30 million. In addition to the cost to lease the pipeline from KPL and operating costs, shippers would have to acquire linefill for WRPL, which depending upon the price and type of crude oil, could total well over $100 million for the 1.2 million barrels of linefill required (excluding any tank inventories in Hartford, Illinois, or Bethany, Missouri).

In addition to the costs outlined above, the shippers would bear the cost of the pipeline tariff associated with the movement from the area in which the crude oil is purchased to the Minnesota Refineries. The table below summarizes the approximate distance and estimated pipeline tariff between crude oil supply sources and the Minnesota Refineries.

		Miles (Approximate) to Destination			Pipeline Tariff ($/barrel) [1]		
		to Hartford, IL	from Hartford to Twin Cities	Total to Twin Cities	to Hartford, IL	from Hartford to Twin Cities	Total to Twin Cities
Origin	Hardisty, Alberta	1,700	580	2,280	$5.57	$6.79	$12.36
	Western North Dakota	1,200	580	1,780	$6.87	$6.79	$13.66
	Guernsey, Wyoming	800	580	1,380	$1.99	$6.79	$8.78

[1] Pipeline tariff assumes pipeline space is available for the desired throughput.

The table below summarizes the approximate distances and estimated pipeline tariffs between crude oil supply sources and the Minnesota

Refineries. Note that the distances crude oil would have to travel and estimated pipeline tariffs are significantly less than the alternatives outlined above when WRPL is utilized to provide incremental supply (see table above).

Origin	Miles (Approximate) to Destination			Pipeline Tariff ($/barrel) [1]		
	to Clearbrook, MN	from Clearbrook to Twin Cities	Total to Twin Cities	to Clearbrook, MN	from Clearbrook to Twin Cities [2]	Total to Twin Cities
Hardisty, Alberta	910	305	1,215	$2.36	$1.52 - $1.77	$3.88 - $4.13
Western North Dakota	360	305	665	$2.57	$1.52 - $1.77	$4.09 - $4.34

(1) Pipeline tariff assumes pipeline space is available for the desired throughput.

(2) MPL's current tariff from Clearbrook to the Minnesota Refineries is $1.52/bbl. MPL estimates the incremental tariff necessary to support the Project could be up to $0.25/bbl. The actual published tariff will be dependent on expected final costs for construction of the Project, estimated operating costs for MPL in 2018, and the Project's ultimate in-service date.

(5) Its economic life:

WRPL was placed into service in the 1980s and was operated as a crude oil pipeline through February 2013, when WRPL ceased accepting nominations.[10] WRPL is expected to be a viable physical asset for at least the next 20 years; however, its use as a viable supply source to the Minnesota Refineries is driven by the reliability and cost-effectiveness in which it could transport crude oil.

(6) Its reliability:

When WRPL was in operation, its capacity was approximately 90,000 barrels per day. As a result, even if WRPL were to be re-started, it is not capable (in its current configuration) of providing the necessary volumes of incremental crude oil supply that Minnesota Refineries need. In addition, supplies are not as reliable or ratable due to declining availability of space on the pipelines that would supply WRPL from crude oil sources in Western Canada and the Rocky Mountain Region.

B. A summary of the conclusions reached with respect to the alternative and the reasons for its rejection.

The MPL Reliability Project is the safest, most efficient, and least costly viable alternative for maintaining sufficient and reliable crude oil supplies to Minnesota Refineries. Thus, the Project was selected over all other alternatives discussed in this section.

[10] The FERC tariff was officially cancelled in February 2014.

7853.0600 INFORMATION REQUIRED [ENVIRONMENTAL DATA].

Each Applicant shall provide environmental data for the proposed facility and for each alternative discussed in response to Section 7853.0540, to the extent that such data is reasonably available. Environmental data for each pipeline considered shall conform to the format given in Sections 7853.0600 to 7853.0640. Information for each of the other types of alternatives considered shall include:

A. A list of the natural and cultural resources, as given in Section 7853.0610, subpart 2, items G to K, that would be directly impacted.

PROJECT

Summaries of direct impacts to natural and cultural resources are more fully discussed in Section 7853.0610. Based on information obtained, MPL has reached the following conclusions:

- The proposed pump station sites will not directly impact major lakes, streams or wetlands of five acres or more. Pump stations will be designed to avoid impacts to wetlands.
- The proposed pump station sites will not result in direct impacts to trunk highways, railroads, or airports.
- The proposed pump station sites will not directly impact any national natural landmarks, national wilderness areas, national wildlife refuges, national wild and scenic rivers, national parks, national forests, national trails, or national waterfowl production areas.
- The proposed pump station sites will not directly impact state critical areas, state wildlife management areas, state scientific and natural areas, state wild, scenic, and recreational rivers, state parks, state scenic wayside parks, state recreational areas, state forests, state trails, state canoe and boating rivers, state zoo, or designated trout lakes.
- The proposed pump station sites will not directly impact any national historic sites and landmarks, national monuments, national register historic districts, registered state historic or archaeological sites, state historical districts, sites listed on the National Register of Historic Places, and any other cultural resources through which the route passes, as indicated by the Minnesota Historical Society.

ALTERNATIVES

MPL identified and rejected the alternatives more fully described in Section 7853.0540 above because they fail to meet the Project's reliability goals. The alternatives also result in construction constraints, higher incremental costs, and/or greater impacts to natural and cultural resources and the environment than the Project.

Summaries of information reasonably available for the potential cultural and natural resources impacts associated with the non-pipeline, system and non-system alternatives to the proposed Project are provided below.

A-1. Non-Pipeline Alternatives

A-1.(1) No Action Alternative

The no action alterative would have no impact to natural or cultural resources.

A-1.(2) Trucking Alternative

Direct impacts to natural and cultural resources, and more specifically those identified in Section 7853.0610, subpart 2, items G to K, cannot be fully assessed because of the varying routes that trucks could travel between Clearbrook and the Twin Cities of Minnesota.

In general, however, potential direct impacts to natural and cultural resources may result from the construction of infrastructure necessary to support the volume of increased truck traffic as estimated in Section 7853.0540, including truck terminals, support facilities, and other appurtenances associated with the loading, transportation, refueling and unloading of product. Construction of the necessary infrastructure may impact trunk highways (item H) and result in clearing, excavation and stormwater discharges impacting one or more of the resources listed in items G through K. In addition, operation of these facilities could result in new sources of ongoing point and stormwater discharges, which could also potentially impact these resources.

A-1.(3) Rail Alternative

Direct impacts to natural and cultural resources, and more specifically those identified in Section 7853.0610, subpart 2, items G to K, cannot be fully assessed because MPL has not identified a feasible, existing rail route through Minnesota.

In general, however, potential direct impacts to natural and cultural resources may result from the construction of infrastructure necessary to support the volume of increased rail traffic as estimated in Section 7853.0540. This would likely include land acquisition, laying of new rail spurs and sidings, new or upgraded mainline track, rail terminals, support facilities, and other appurtenances associated with the loading, transportation and unloading of product. Construction of the necessary infrastructure may impact railroads (item H) and result in clearing, excavation and stormwater discharges impacting one or more of the resources listed in items G through K. In addition, operation of these facilities could result in new sources of ongoing point and stormwater discharges, which could also potentially impact these resources.

A-2. System Alternatives

A-2.(1) Build a New Pipeline

As discussed in Section 7853.0540, constructing a new pipeline is not a reasonable and prudent alternative to placing six new pump stations and upgrading the two existing pump stations on MPL Line 4. A new pipeline would not optimize the use of MPL Line 4, which was originally

designed to allow for the addition of these new and upgraded pump stations, as discussed in MPUC Docket No. PL-5/CN-06-02.

Direct impacts to natural and cultural resources, and more specifically those identified in Section 7853.0610, subpart 2, items G to K, cannot be fully assessed because MPL has not identified the route for a newly constructed pipeline. However, a new pipeline would most likely run parallel to Line 4 between Clearbrook and the Twin Cities, running a distance of approximately 305 miles. The new pipeline would likely utilize the existing right-of-way and facilities along MPL Line 4 while paralleling the other MPL Lines 1, 2 and 3, a distance of approximately 120 miles. MPL would need to acquire new line rights for the MPL Line 4 right-of-way south of the split of MPL Line 4 away from the other MPL Lines, north of Little Falls, Minnesota. This new right-of-way, stretching approximately 185 miles, would result in substantial cost to MPL and inconvenience to landowners. New pipeline construction would require excavation of the existing and new right-of-way and modification of the two existing pump stations, requiring major construction across a good portion of Minnesota.

In general, if MPL were to build a new pipeline, direct impacts to natural and cultural resources would be consistent with those expected from the construction of a new pipeline and appurtenances. These would include clearing, grading, trench excavation, backfilling, and restoration of disturbed areas. Impacts would also likely include construction stormwater runoff and potential impacts to wetlands. Given the length of the pipeline and the new rights-of-way that would need to be acquired, it is possible that one or more of the natural and cultural resources in items G to K would be impacted. For illustrative purposes, and as detailed in MPUC Docket No. PL-5/CN-06-02, if the new pipeline paralleled MPL Line 4, it could be anticipated to cross over 200 miles of agricultural land, over 40 miles of forested land, and over 30 miles of wetland and open water areas. The new pipeline could also be anticipated to cross approximately 30 state and federal highways and 12 railroads, as well as waterfowl production areas and other designated state areas, including state forest land. While there are many scenarios where a new pipeline project would be an optimal alternative, under the present circumstances, the Project accomplishes the goal of reliability with the least impact to natural and cultural resources.

MPL rejected the construction of a new pipeline as an alternative to the Project for the reasons set forth under Section 7853.0540 and also because this alternative would likely result in a much greater impact to cultural and natural resources when compared with the Project.

A-3. Non-System Alternative

A-3.(1) Restart Wood River Pipeline

For the reasons stated in Section 7853.0540, restarting Wood River Pipeline is not a feasible alternative to the Project. However, potential direct impacts to natural and cultural resources resulting from the restarting of Wood River Pipeline would be minimal because this is an existing asset.

B. A discussion of those applicable areas of environmental concern that are detailed in Sections 7853.0620 to 7853.0640.

PROJECT

Summaries of environmental information for the proposed Project are more fully described in responses to Sections 7853.0610 and 7853.0620 through 7853.0640. Potential areas of environmental concern as detailed in Sections 7853.0620 through 7853.0640 are as follows:

- **Point Discharges of Water** – Two types of direct discharges expected are one-time hydrostatic test water and trench dewatering discharges during construction.

- **Area Runoff** – One type of indirect discharge that will be expected is stormwater runoff from the pump stations sites during construction.

- **Point Sources of Airborne Emissions** – Dust may result from construction activities and the movement of equipment, but will be temporary and minimized using the controls described below. Nominal amounts of airborne emissions will occur through pump seals, valves, and other pipeline appurtenances during regular operation of the pipeline.

- **Noise** – Construction noise associated with heavy equipment is expected during construction, but will be on a short-term basis. Operation of the pump stations will also generate some noise, but is not expected to have an impact on local receptors because the pump station sites are located in predominantly rural and undeveloped areas.

- **Air Pollution Controls** – To address any fugitive air emissions resulting from temporary construction activities, MPL will take the measures more fully outlined in Section 7853.0630, Subpart 1 below including the use of water to minimize dust. Air emissions from the operation of the pipeline will be nominal, and the addition of the new and upgraded pump stations do not require either an air permit or air pollution controls.

- **Water Pollution Controls** – To address direct and indirect water discharges resulting from construction activities, MPL will implement the design, erosion control and restoration measures more fully outlined in Section 7853.0630, subpart 2 below to minimize impacts to water quality. During operation, MPL will also follow the requirements of all applicable permits associated with any water discharges.

- **Oil Spill, Fire, and Explosion Safeguards** – Environmental concerns associated with potential oil spills, fires, and explosions will be minimized by designing the facility using standard engineering practices and safely operating the facility using tested and proven operating parameters and practices. These will include the monitoring, integrity, reliability, public awareness, maintenance, surveillance, and contingency practices and programs more fully described under Section

7853.0630, subpart 3 below. In addition, an emergency response program will be implemented comprised of prevention, planning, resources and training elements to mitigate any unforeseen risks.

- **Other Safeguards and Controls** – Other safeguards and controls designed to minimize environmental concerns will include erosion control and ongoing inspection, integrity, and public awareness programs, as more fully described under Section 7853.0630, subpart 4 below.

- **Utility Use** – The operation of the pipeline will involve a need for electrical power at the new pump stations, but will not otherwise create a need for expanded utilities or public services.

- **Water Use** – Water needed for one-time hydrostatic tests at each pump station will be withdrawn for use in accordance with applicable regulations. Nominal quantities of water may be used for dust suppression activities, if appropriate during construction.

- **Vehicular Traffic** – Temporary impacts to traffic are expected during the construction phases of the Project. Environmental concerns such as dust from construction equipment will be minimized by using water for dust suppression, if appropriate. During operations, periodic visits to the pump site locations for maintenance, etc., will be needed, although this will not result in an appreciable increase in volume of traffic or any additional environmental concerns.

- **Agriculture** – At three of the pump station locations, it is expected that 5-7 acres each will be converted from agricultural use, but this will not impact farms or adjacent agricultural uses.

- **Relocation of Persons** – MPL does not anticipate relocation of any persons during construction or operation.

ALTERNATIVES

Information reasonably available regarding applicable areas of environmental concern related to the alternatives discussed in Section 7853.0540 is provided below.

B-1. Non-Pipeline Alternatives

B-1.(1) No Action Alternative

The no action alterative would not present any additional areas of environmental concern.

B-1.(2) Trucking Alternative

MPL has not performed a detailed analysis of the trucking alternative to the Project because, for the reasons more fully stated in this document in response to Section 7853.0540, this is not a

sufficiently reliable or economic alternative. As such, MPL cannot provide details regarding areas of environmental concern related to this alternative.

In general, however, potential environmental concerns may include those associated with the construction of infrastructure necessary to support the volume of increased truck traffic as estimated in Section 7853.0540, including truck terminals, support facilities, and other appurtenances associated with the loading, transportation, refueling and unloading of product. Construction of the necessary infrastructure may result in stormwater discharges. In addition, operation of these facilities could result in new sources of ongoing point and stormwater discharges and air emissions resulting from the loading and unloading of product.

B-1.(3) Rail Alternative

MPL has not performed a detailed analysis of the rail alternative to the Project because, for the reasons more fully stated in Section 7853.0540, this is not a sufficiently reliable or economic alternative. As such, MPL cannot provide details regarding areas of environmental concern related to this alternative.

In general, however, potential environmental concerns may include those associated with the construction of infrastructure necessary to support the volume of increased rail traffic as estimated in Section 7853.0540. This would likely include land acquisition, laying of new rail spurs and sidings, new or upgraded mainline track, rail terminals, support facilities, and other appurtenances associated with the loading, transportation and unloading of product. Construction of the necessary infrastructure may require impacts to wetlands and stormwater discharges. In addition, operation of these facilities could result in new sources of ongoing point and stormwater discharges and air emissions resulting from the loading and unloading of product.

B-2. System Alternatives

B-2.(1) Build a New Pipeline

As discussed in Section A-2 (1), above, MPL has not performed a detailed analysis of the new pipeline alternative to the Project because, for the reasons more fully stated in part 7853.0540, this is not a sufficiently reliable or economic alternative. Moreover, construction of a new pipeline would require acquisition of approximately 185 miles of new right-of-way. As such, MPL has not identified a feasible route, and detailed environmental concerns associated with the construction of a new pipeline cannot be fully assessed.

In general, however, if MPL were to build a new pipeline, environmental concerns would be consistent with those expected when constructing a new pipeline and appurtenances. These would include clearing, grading, trench excavation, backfilling, and restoration of disturbed areas. Environmental concerns would generally also likely include potential impacts to wetlands, streams or lakes related to construction stormwater runoff resulting from construction activities. Given the length of the approximately 305 miles or more of pipeline route and the appurtenances required, the environmental concerns would be on a much greater scale than those associated with the Project as described above. There are many scenarios where a new pipeline project would be an optimal alternative. However, under the present circumstances, the Project

accomplishes the goal of reliability with far fewer environmental impacts or concerns. MPL rejected the construction of a new pipeline as an alternative to the Project for the reasons set forth under Section 7853.0540 and also because this alternative would likely result in environmental concerns impacting a much greater geographical area when compared with the Project.

B-3. Non-System Alternative

B-3.(1) Restart Wood River Pipeline

For the reasons stated in Section 7853.0540, restarting Wood River Pipeline is not a feasible alternative to the Project. However, potential environmental concerns resulting from the restarting of Wood River Pipeline would be minimal because this is an existing asset, and any construction activities would be comparatively minimal. Any environmental concerns related to operation of the pipeline would be consistent with those included under the discussion of the Project in this Section.

7853.0610 LOCATION.

Subpart 1: Land Description. If a particular route has been selected for the new (sections of) pipeline, indicate that route on an appropriate map. If no particular route has been selected, indicate on an appropriate map each possible route that has been given serious consideration.

The Project does not include new mainline pipeline installation and does not include any new pipeline installation outside of the existing and planned new pump stations, so there is no route and no route map. The MPL Line 4 route was fully reviewed and approved in MPUC Docket No. PL-5/PPL-05-2003.

New pump stations will be constructed immediately adjacent to the existing line. Refer to Exhibit 10 for the line route and station locations. Three of the six new station locations will be located on parcels that are currently in agricultural use. The remaining three will be in rural, non-farming areas. Desired parcel size for the station is approximately 10 acres, of which 5-7 acres will be utilized for the primary station equipment.

Subpart 2: Description of Environment. For each route identified in response to subpart 1, list.

A. The names of cities or population centers through which the route passes.

The cities or population centers nearest the pump stations are:

Clearbrook origination station – mile post 0 – nearest population center: Clearbrook, Minnesota, 1 mile NNW. Population 516

Laporte Pump Station – mile post 36 – nearest population center: Lake George, Minnesota, 6.7 miles E. Population 195

Sebeka Pump Station – mile post 74.5 – nearest population center: Sebeka, Minnesota, 2.8 miles SSW. Population 701

Fish Trap Pump Station – mile post 113 – nearest population center: Motley, Minnesota, 9.5 miles N. Population 663

Albany Pump Station – mile post 152 – nearest population center: Albany, Minnesota, 2.9 miles SSE. Population 2,593

Forest City Pump Station – mile post 191 – nearest population center: Litchfield, Minnesota, 6.6 miles SSW. Population 6,671

Plato Pump Station – mile post 228 – nearest population center: Plato, Minnesota, 1.7 miles SSW. Population 317

St. Patrick Pump Station – mile post 264 – nearest population center: New Prague, Minnesota, 4 miles SSW. Population 7,428

B. The number of miles of the route that pass through, respectively, federal lands, state lands, county or tax-forfeit lands, incorporated areas, and private land outside incorporated areas.

The Project will not require the crossing of any new federal, state, or county land; incorporated areas; or privately owned land. The MPL Line 4 pipeline is currently installed and work associated with the Project will occur on property already owned in fee by MPL. This Project, to install six new pump stations and modify existing stations, will not change the current routing of MPL Line 4. All of the pump station sites are on private property owned by MPL and are located in rural areas. A tabulation of the miles the line runs through each of these respective areas is attached as a table below.

Table 7853.0610, Subpart 2, B

MPL Line 4 Length	Miles
System Length	305.0
Federal Land	1.0
State Land	3.2
County or Tax-Forfeited Land	11.1
Incorporated Area	6.3
Private Land Outside of Incorporated Areas	283.1
Total Mileage Check	304.7

C. The general soil types along the route and the approximate percentage of each.

There is no new route to be acquired or incorporated into this Project; as the route was previously established during the installation of MPL Line 4. The soil types identified at each of the proposed pump stations and the approximate percentage of each are identified in the table below.

Soil types were derived from current SSURGO (Soil Survey Geographic Database) from the US Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS") Web Soil Survey ("WSS").

Compaction-prone soils were defined for the table below as SSURGO database Drainage Class categories "somewhat poorly drained," "poorly drained," and "very poorly drained."

Hydric soils were defined for the table below as soils with a rating of "hydric," directly from the SSURGO database Hydric Rating by Map Unit.

Prime farmland was defined for the table below as soils with a rating of "prime farmland," directly from the SSURGO database Farmland Classification.

Highly erodible soils were defined for the table below as map unit slope > 8%, using the SSURGO database Representative Slope.

Table 7853.0610-C - Soil Characteristics at Pump Station Sites

Station	Existing Soils	Percentage of total soil at Station site	Prime Farmland (% of total soil at Station site)	Hydric Soils (% of total soil at Station site)	Compaction-Prone (% of total soil at Station site)	Highly Erodible (% of total soil at Station site)
Albany	Cordova loam	26%	100%	0%	0%	54%
	Gonvick loam, 1 to 2 percent slopes	53%				
	Roliss loam	21%				
Clearbrook	Smiley loam	100%	100%	0%	0%	0%
Fish Trap	Cathro muck	5%	5%	95%	5%	0%
	Cushing fine sandy loam, 8 to 15 percent slopes	2%				
	Cushing-Mahtomedi-DeMontreville complex, 15 to 25 percent slopes	93%				
Forest City	Kingston silty clay loam, 1 to 3 percent slopes	58%	42%	0%	42%	58%
	Madelia silty clay loam, 0 to 2 percent slopes	42%				
Laporte	Two Inlets-Eagleview-Steamboat complex, pitted, 3 to 15 percent slopes	100%	0%	100%	0%	0%
Plato	Canisteo-Glencoe, depressional complex, 0 to 2 percent slopes	5%	37%	0%	0%	35%
	Cordova clay loam	29%				
	Cordova clay loam	4%				
	Lester-Storden complex, 2 to 6 percent slopes	34%				
	Lester-Storden complex, 6 to 12 percent slopes, eroded	28%				
Sebeka	Graycalm loamy sand	16%	0%	0%	0%	0%
	Menahga loamy coarse sand, 2 to 6 percent slopes	84%				
St. Patrick	Estherville loam, 6 to 12 percent slopes, moderately eroded	2%	3%	4%	3%	94%
	Estherville-Burnsville complex, 12 to 50 percent slopes	1%				
	Lester loam, 2 to 6 percent slopes, moderately eroded	94%				
	Webster-Glencoe silty clay loams	3%				

D. The general terrain along the route.

All of the pump stations that will be installed or upgraded as part of this Project are located in the Western Lake Section of the Central Lowlands physiographic province. The underlying bedrock in the Western Lake Section of the Central Lowlands physiographic province was formed in the Paleozoic Era, and is overlain in much of Minnesota by thick glacial deposits of much more recent origin. Surface features in this section were formed mainly during the Wisconsin Glaciation and include till plains, glacial moraines, outwash plains, and glaciolacustrine deposits.

Overall, elevations at the pump stations decrease from north to south. Elevations at the existing and proposed stations are as follows:

- Clearbrook Station: ~1,355 feet above mean sea level ("MSL")
- Laporte Station: ~ 1,550 feet above MSL
- Sebeka Station: ~1,380 feet above MSL
- Fish Trap Station: ~1,320 feet above MSL
- Albany Station: ~1,260 feet above MSL
- Forest City Station: ~1,090 feet above MSL
- Plato Station: ~995 feet above MSL
- St. Patrick Station: ~985 feet above MSL

With the exception of the Laporte Station and Fish Trap Station sites, topography is nearly level or flat at each station.

E. The types of vegetation along the route (including forest, brush, marsh, pasture and cropland) and the approximate percentage of each.

Vegetation types and percentages for each site were assessed based on a review of aerial imagery combined with consultation of standard land cover datasets.[11]

Clearbrook Station

The existing Clearbrook Station is mostly gravel/impervious surface and contains little vegetation. The pump station upgrades will occur entirely within the existing developed area (100% impervious surface). It is bordered on the north by a county roadway and an Enbridge

[11] Data sourced from: National Land Cover Dataset information (Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J.), 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, *PE&RS*, Vol. 77(9):858-864) and United States Geological Survey (USGS) GAP Analysis Program land cover data v2.2 (US Geological Survey GAP analysis program (GAP). May 2011. National Land Cover, v 2.).

station. To the west, south and east it is bordered by cropland, forest, brush/grassland, and wetland.

Laporte Station

The proposed Laporte Station is located in an area that is currently primarily deciduous forest (100% forested).

Sebeka Station

The proposed Sebeka Station is located in an area that is predominantly agricultural. The proposed pump station itself will be located on land that is currently cropland (100% cropland).

Fish Trap Station

The area around the proposed Fish Trap Station is a mix of wetland and deciduous forest. The proposed pump station itself will be located on land that is currently forested (100% forested).

Albany Station

The area around the Albany Station is primarily cropland. The pump station upgrades at the Albany station will occur entirely within the existing developed area (100% impervious surface).

Forest City Station

The area surrounding the proposed Forest City Station is primarily cropland. The proposed pump station itself will be located on land that is currently cropland (100% cropland).

Plato Station

The proposed Plato Station is located in an area that is primarily cropland. The proposed pump station itself is located on land that is currently cropland (100% cropland).

St. Patrick Station

The proposed St. Patrick Station is located in an area that is primarily cropland. The proposed pump station itself is located on land that is currently cropland (100% cropland).

F. The predominant types of land use along the route (such as residential, forest, agricultural, commercial, and industrial) and the approximate percentages of each.

Land use and percentages for each site were assessed based on a review of aerial imagery with consultation of standard land cover datasets, including the sources listed in Section 7853.0610, Subpart 2.E above. Land use at each of the proposed pump stations and the approximate percentage of each type of land use are summarized in the table below.

7853.0610 - F - Approximate Percentage of Each Land Use at Pump Station Sites

Station	Residential	Forest	Agricultural	Commercial	Industrial
Clearbrook	0%	0%	0%	0%	100%
Laporte	0%	100%	0%	0%	0%
Sebeka	0%	0%	100%	0%	0%
Fish Trap	0%	100%	0%	0%	0%
Albany	0%	0%	0%	0%	100%
Forest City	0%	0%	100%	0%	0%
Plato	0%	0%	100%	0%	0%
St. Patrick	0%	0%	100%	0%	0%

G. The names of major lakes or streams and the number of wetlands of five acres or more through which the route passes, as well as any others into which liquid contaminant from the pipeline could flow.

The names and locations of major lakes, streams and wetlands of five acres or more were determined based on a review of several databases.[12]

None of the proposed pump stations will directly affect major lakes, streams or wetlands of five acres or more. Pump stations will be designed to avoid impacts to wetlands. Table 7859.0610-G identifies nearby wetlands and waterbodies for each of the pump station locations.

[12] National Wetland Inventory (NWI) for Minnesota. USFWS. 5/22/2008 (Accessed from http://www.fws.gov/wetlands/Downloads/State/MN_wetlands.zip); National Hydrography Dataset (NHD). USGS. 3/13/2013. (Accessed from ftp://nhdftp.usgs.gov/DataSets/Staged/States/FileGDB/HighResolution/NHDH_MN_931v210.zip); Minnesota Impaired Waters (2014 Draft). Minnesota Pollution Control Agency (MPCA). April 2014 (Accessed from ftp://files.pca.state.mn.us/pub/spatialdata/); Minnesota Public Waters Inventory (PWI). Minnesota DNR. 7/31/2008 (Accessed from http://deli.dnr.state.mn.us/); Minnesota Trout Streams. Minnesota DNR. 7/31/2008 (Accessed from http://deli.dnr.state.mn.us/); Minnesota Trout Lakes. Minnesota DNR. 6/15/2004. (Accessed from http://deli.dnr.state.mn.us/); Minnesota 24k Streams. Minnesota DNR. 1/1/1980 (Accessed from http://deli.dnr.state.mn.us/).

Table 7853.0610-G - Waterbodies and Wetlands Near Pump Station Sites[13]

Station	Nearby Waterbody	Nearby Wetland
Clearbrook	Steenerson Lake located approximately 0.1 mile east, unnamed intermittent stream located approximately 0.2 mile southwest	Freshwater emergent wetland associated with Steenerson Lake located approximately 0.1 mile east, freshwater forested/shrub wetlands located approximately 0.1 mile south and approximately 0.2 mile to the west
Laporte	Unnamed lake located approximately 0.6 mile southeast	Freshwater emergent wetland and forested/shrub wetland at distance of approximately 0.2 mile northwest
Sebeka	Unnamed stream associated with wetlands located approximately 0.4 mile to the north	Forested/shrub wetlands approximately 0.1 mile north, freshwater emergent wetlands approximately 0.1 mile south and approximately 0.1 mile to the west
Fish Trap	Dvorak I Lake located approximately 0.2 mile west, Fish Trap Lake approximately 0.3 mile east, Fish Trap Creek approximately 0.2 mile east	Freshwater forested/shrub wetland and emergent wetlands adjacent to site
Albany	Drainage ditch located approximately 0.2 mile to the north	Freshwater emergent wetland associated with a drainage ditch approximately 0.1 mile north, additional freshwater emergent wetlands approximately 0.1 mile south and approximately 0.1 mile east and southeast
Forest City	Unnamed intermittent streams located approximately 0.5 mile west and approximately 0.6 mile east, Rice Lake approximately 1 mile southwest, county ditch (unnamed intermittent) approximately 0.7 mile south	Small freshwater emergent wetlands located approximately 0.2 mile west and approximately 0.3 mile south
Plato	Buffalo Creek approximately 0.6 mile west, drainage ditches approximately 0.5 mile to southeast and approximately 0.5 mile to southwest	Freshwater emergent wetlands to west, south and east, distance of approximately 0.1 mile or greater
St. Patrick	Cedar Lake located approximately 0.4 mile north, County Ditch (flowing to unnamed tributary of Sand Creek) approximately 0.2 mile south and approximately 0.3 mile west	Freshwater emergent wetlands immediately south approximately 0.3 mile to the northwest and 0.3 mile to the northeast

[13] Data sourced from: National Wetland Inventory (NWI) for Minnesota. USFWS. 5/22/2008. Accessed from http://www.fws.gov/wetlands/Downloads/State/MN_wetlands.zip; National Hydrography Dataset (NHD). USGS. 3/13/2013. Accessed from ftp://nhdftp.usgs.gov/DataSets/Staged/States/FileGDB/HighResolution/NHDH_MN_931v210.zip; Minnesota Impaired Waters (2014 Draft). Minnesota Pollution Control Agency (MPCA). April 2014. Accessed from ftp://files.pca.state.mn.us/pub/spatialdata/; Minnesota Public Waters Inventory (PWI). Minnesota DNR. 7/31/2008. Accessed from http://deli.dnr.state.mn.us/; Minnesota Trout Streams. Minnesota DNR. 7/31/2008. Accessed from http://deli.dnr.state.mn.us/; Minnesota Trout Lakes. Minnesota DNR. 6/15/2004. Accessed from http://deli.dnr.state.mn.us/; Minnesota 24k Streams. Minnesota DNR. 1/1/1980. Accessed from http://deli.dnr.state.mn.us/.

H. Trunk highways, railroads, and airports along the route.

Please refer to Map Exhibits 11-18 that depict existing and proposed stations with trunk highways, railroads, and airports if present within a one-mile radius of the respective sites. In addition to the maps, relative locations of the sites are listed below.

Clearbrook Station

The existing Clearbrook Station is located approximately one mile east of Minnesota Highway 92 and south of County State Aid Highway (CSAH) 49.

Laporte Station

The proposed Laporte Station is located approximately 0.5 mile east of Minnesota Highway 200, immediately south of County Road (CR) 95 and west of CR 96 (115th Avenue).

Sebeka Station

The proposed Sebeka Station is located immediately west of 139th Avenue, approximately one mile east of U.S. Highway 71, and one mile north of CR 143.

Fish Trap Station

The proposed Fish Trap Station is located immediately east of U.S. Highway 10, west of CR 200, and north of Holt Road. The proposed Fish Trap Station is approximately 0.3 mile west of BNSF's University – East Dilworth rail line.

Albany Station

The Albany Station is located on Minnesota Highway 238 approximately 0.4 mile east of Minnesota Highway 238 and CR 39.

Forest City Station

The proposed Forest City Station is located approximately one mile south of Minnesota Highway 24, immediately south of 305th Street, and west of 670th Avenue.

Plato Station

The proposed Plato Station is located approximately 0.5 mile east of CR 9 on 122nd Street.

St. Patrick Station

The proposed St. Patrick Station is located approximately 0.2 mile south of CR 2 and approximately 0.3 mile west of Baseline Avenue.

The proposed pump station sites will not result in direct impacts to trunk highways, railroads, or airports.

I. National natural landmarks, national wilderness areas, national wildlife refuges, national wild and scenic rivers, national parks, national forests, national trails, and national waterfowl production areas through which the route passes, as mapped on the inventory of significant resources by the State Planning Agency.

National natural landmarks, national wilderness areas, national wildlife refuges, national wild and scenic rivers, national parks, national forests, national trails, and national waterfowl production areas were identified based on a review of several databases.[14]

The proposed pump station sites do not overlap with any national natural landmarks, national wilderness areas, national wildlife refuges, national wild and scenic rivers, national parks, national forests, national trails, or national waterfowl production areas.

J. State critical areas, state wildlife management areas, state scientific and natural areas, state wild, scenic, and recreational rivers, state parks, state scenic wayside parks, state recreational areas, state forests, state trails, state canoe and boating rivers, state zoo, designated trout lakes through which the route passes, as mapped on the inventory of significant resources by the State Planning Agency.

State critical areas, state wildlife management areas, state scientific and natural areas, state wild, scenic, and recreational rivers, state parks, state scenic wayside parks, state recreational areas, state forests, state trails, state canoe and boating rivers, state zoo, and designated trout lakes were identified based on a review of several databases.[15]

The proposed pump station sites do not overlap with state critical areas, state wildlife management areas, state scientific and natural areas, state wild, scenic, and recreational rivers, state parks, state scenic wayside parks, state recreational areas, state forests, state trails, state canoe and boating rivers, state zoo, or designated trout lakes.

---

[14] Data Sourced from: Minnesota State Trails. Minnesota DNR. 3/2/2010 (Accessed from http://deli.dnr.state.mn.us/); Minnesota State Parks. Minnesota DNR. 1/1/2002 (Accessed from http://deli.dnr.state.mn.us/); Minnesota State Forests. Minnesota DNR. 9/4/2009 (Accessed from http://deli.dnr.state.mn.us/); Scientific and Natural Areas. Minnesota DNR. 9/4/2003 (Accessed from http://deli.dnr.state.mn.us/); Minnesota Natural Heritage Information System. Minnesota DNR. 5/8/2013. Restricted data licensed from Minnesota DNR; State Wildlife Management Areas. Minnesota DNR. 2/14/2006 (Accessed from http://deli.dnr.state.mn.us/); GAP Landownership. Minnesota DNR. 5/1/2008 (Accessed from http://deli.dnr.state.mn.us/); Watershed Management Districts and Organizations. Minnesota Board of Water and Soil Resources (BWSR). 1/1/2004 (Accessed from http://deli.dnr.state.mn.us/); Wild and Scenic River Districts. Minnesota DNR. 10/19/2006 (Accessed from http://deli.dnr.state.mn.us/).

[15] Data Sourced from: National Wildlife Refuges. USFWS. 1995 (Accessed from http://deli.dnr.state.mn.us/); Waterfowl Production Area. USFWS. 5/24/2010 (Accessed from http://deli.dnr.state.mn.us/); GAP Landownership. Minnesota DNR. 5/1/2008 (Accessed from http://deli.dnr.state.mn.us/); National Park Boundaries. US National Park Service. 1/1/2003 (Accessed from http://www.dot.state.mn.us/maps/gdma/gis-data.html); National Grasslands. US Forest Service. 10/7/2013 (Accessed from http://www.data.gov/geospatial/); Administered Lands Cadastral Geodatabase. US Fish and Wildlife Service. 5/11/2009. (Accessed from http://www.fws.gov/GIS/data/CadastralDB/index.htm).

K. National historic sites and landmarks, national monuments, national register historic districts, registered state historic or archaeological sites, state historical districts, sites listed on the National Register of Historic Places, and any other cultural resources through which the route passes, as indicated by the Minnesota Historical Society.

The Minnesota State Historic Preservation Office ("SHPO") database was searched on May 29, 2014, to identify known archaeological sites and historic structures in the vicinity of each of the pump station sites.

For the Clearbrook Station, all archaeological sites and historic structures identified in the SHPO database search were found outside the preliminary estimated footprint of the proposed pump station, with the exception of site CE-LEN-003 (MPL Station historic property). The MPL Station historic property has no locational information in the Minnesota SHPO database, and no file is available for this site at the Minnesota SHPO. It is possible the historic property is at the existing Clearbrook Station site. According to the SHPO database, the site has been inventoried but not nominated for inclusion in the National Register of Historic Places ("NRHP").

One archaeological site was identified approximately 0.9 mile from the proposed Fish Trap Station site, and 16 historic sites (Anton Gogala Farmstead) are located within 0.5 mile of the existing Albany Station. One additional historic site (Church Rectory) is located 1.2 miles to the northwest.

No archaeological sites or historic structures were identified in the vicinity of the proposed Laporte, Sebeka, Forest City, or Plato Stations.

7853.0620 WASTEWATER, AIR EMISSIONS, AND NOISE SOURCES.

Subpart 1: Point Discharges to Water. Indicate the location, route, and final receiving waters for any discharge points. For each discharge point indicate the source, the amount, and the nature of the discharge (provide quantitative data if possible).

Potential discharges related to construction at the station sites include hydrostatic test water discharges and dewatering discharges. Dewatering may occur during excavations at station sites if necessary and will be implemented in accordance with MPL's procedures and permits issued by the appropriate regulatory agencies. Filtering devices such as geotextile filter bags and/or straw bale structures will be used as needed to reduce the amount of suspended solids in the discharge water.

Hydrostatic tests will be completed on the new piping at the pump stations and hydrostatic test water discharges will be implemented in accordance with MPL's procedures and permits issued by the appropriate regulatory agencies. The sources of hydrotest water and the discharge locations have not been determined at this time; however, a one-time appropriation of approximately 50,000 gallons of water will be required to conduct hydrostatic testing at each station. The hydrostatic test procedure may include discharging the water back to its original source, discharging to another waterbody, or discharging to a well-vegetated upland area. In any case, the water is discharged in such a manner so as to minimize erosion or suspension of sediment in a surface waterbody. The nearest receiving water (i.e., wetland or waterbody) at each station is provided in Section 7853.0610, Subpart 2(G).

Subpart 2: Area Runoff. Indicate the area from which runoff may occur, potential sources of contamination in the area, and receiving waters for any runoff.

The construction work spaces are potential areas from which stormwater runoff may occur. Erosion of disturbed soil and the deposition of sediments in adjacent land to the construction work space may occur. To minimize the potential for runoff to transport sediment or cause erosion, MPL will minimize the amount of ground disturbance to only those areas necessary to install or upgrade the pump station. Potential receiving waters for stormwater runoff include waterbodies or wetlands adjacent to the Project sites. A list of waterbodies and wetlands that could potentially be receiving water is provided in Section 7853.0610, Subpart 2(G). MPL will implement any necessary erosion control measures during and after construction, where appropriate, to minimize erosion and sedimentation. These control measures are discussed in Section 7853.0630. Applicable state and local permits related to erosion and sediment control will be obtained for the Project as necessary.

A limited Phase I investigation was conducted on the pump station sites to identify potential sources of soil and groundwater contamination. Based on the results of this investigation, potential sources of contamination on the sites are primarily related to agricultural activities, including storage and use of farm chemicals and fuel for farm equipment. If any contaminated soils or groundwater are encountered during construction of the stations, the contaminated material will be managed in accordance with all applicable state and federal regulations.

Subpart 3: Point Sources of Airborne Emissions. Estimate the quantity of gaseous and particulate emissions that would occur during full operation of the pipeline from each emission source and indicate the location and nature of the release point.

The pipeline pump stations are closed process systems and will be operated using electrically driven equipment; however, some minor fugitive air emissions (e.g., <1 tpy VOC, <0.1 tpy HAPs, and <0.5 tpy PM) will occur through pump seals, valves, and other pipeline appurtenances during regular operation of the facilities. MPL is not subject to air permit approval for the proposed pump station modifications and additions. Accordingly, these minor emissions from the Project are not expected to significantly impact local air quality.

Subpart 4: Noise. Indicate the maximum noise levels (in decibels, A scale) expected along the route. Also, indicate the expected maximum increase over ambient noise levels.

(1) Ongoing Operations

Noise surveys performed by MPL staff have indicated that the typical pump station generates about 100 decibels of the A-weighted scale ("dBA") immediately at the pump source. These surveys indicate a noise level of approximately 65 dBA, including surrounding ambient sources, at a distance approximately 100 feet from the pump source.

(2) Pump Station Construction

The heavy equipment needed to construct the pump station facilities will have a short-term impact on noise levels in the vicinity of the construction area. Typical construction equipment (e.g., bulldozers, loaders and backhoes) generates between 80 to 90 dBA within 50 feet of the equipment. This equipment noise will be limited to the period of construction and typically will be limited to daylight hours. Because the pump stations are sited in predominantly rural and undeveloped areas, the general public should experience limited nuisance noise.

7853.0630 POLLUTION CONTROL AND SAFEGUARDS EQUIPMENT.

Subpart 1: Air Pollution Controls. Indicate types of emission control devices and dust control measures that would be used.

Operation of the pipeline pump stations will result only in minor fugitive air emissions from pump seals, valves, and other pipeline appurtenances. These minor emissions from the Project are not expected to significantly impact local air quality. MPL is not subject to air permit approval for the proposed pump station modifications and additions. As such, no air pollution controls are necessary for operation of the stations and would be of nominal benefit.

Fugitive dust from the exposed ground surface during construction activities may be generated by the Project. To minimize the potential for fugitive dust, MPL will clear and grade the ground surface only where necessary for the construction of the pump stations. By maintaining the vegetative cover in the Project area to the extent possible and using control measures including watering or applying dust suppressants, the potential sources for fugitive dust will be minimized.

In addition, MPL will manage the construction process to allow the Project area to be promptly restored and revegetated to minimize the amount of time that disturbed soil is exposed to wind and erosion, and will apply water to minimize fugitive dust as appropriate.

Subpart 2: Water Pollution Controls. Indicate types of pollution control equipment and runoff control measures that would be used to comply with applicable state and federal rules, regulations and statutes.

Initial designs for new stations include pumps that are under a roof, and on concrete foundations with impervious concrete floors in the building. The pump building design includes a perimeter bermed containment area to mitigate offsite impacts in the event of a release. Certain areas of the station will be lined with soil material that is impervious to crude oil to mitigate impact to groundwater in the event of a release.

Construction of the pump stations may cause erosion and sedimentation as a result of grading and clearing activities. To minimize onsite erosion and offsite runoff, MPL will develop a Stormwater Pollution Prevention Plan ("SWPPP") for each station, which will describe best management practices ("BMPs") to prevent erosion and sedimentation. These BMPs will include temporary measures such as perimeter controls (e.g., silt fence) and permanent measures such as seeding to stabilize the site soils. The SWPPP will also describe the necessary steps and reporting requirements to be taken in the event of a spill (e.g., fuel, oil, or other hazardous substance) from construction-related activities.

MPL will include the SWPPP with the bidder's package so that each potential contractor is aware of the environmental protection measures that are required for the Project. The contractor(s) selected by MPL will also be required to participate in pre-construction training to clearly understand the MPL environmental expectations for the Project.

Subpart 3: Oil Spill, Fire, and Explosion Safeguards. Describe measures that would be taken to prevent oil spills, fires, and explosions or to minimize the environmental impact of a spill, a fire, or of an explosion.

(1) System Operation

Section 7853.0270 OTHER DATA FILED WITH APPLICATION contains information describing KPL's commitment to protecting the environment through programs and capabilities that KPL, as operator of the MPL System, has developed to prevent releases and minimize environmental impact, such as:

- Utilization of a Pipeline Control Center which continuously monitors operating conditions of the pipeline and delivers data to KPL's leak detection system, which alerts operators to the possibility of a potential release.

- An Integrity Management Program which defines the processes and procedures KPL utilizes to maintain and verify the integrity of the MPL System and other pipeline systems. KPL's Integrity Management Program was developed to meet the requirements of the Department of Transportation's Pipeline Integrity Management in High Consequence Areas ("HCA") rule (49 C.F.R. Part 195.452). KPL has identified pipeline sections that could affect a HCA, and has made special considerations in these areas when developing and implementing leak prevention and release mitigation programs.

- A Public Awareness Program which provides pipeline safety and excavation damage prevention information to the public, contractors involved in excavation activities, government emergency response agencies, and local officials.

- Right-of-way maintenance and surveillance activities which require regular, visual inspection of the pipeline right-of-way.

In addition to these programs to prevent a release, KPL has developed and uses on the MPL System an Integrated Contingency Plan ("ICP") that provides KPL and its employees with a single, comprehensive and useful Emergency Response/Action plan. The intent of the ICP is to prepare company personnel to respond to releases and other environmental emergencies. The general activities initiated when a release is identified include the following: the company's Pipeline Control Center will shut down the pipeline and notify the company Qualified Individual ("QI"); the QI will activate the Spill Management Team and notify the appropriate federal, state and local agencies; the leak will be isolated by closing pipeline valves; a general site assessment will be initiated; the company-owned containment/recovery equipment will be deployed; and the Incident Command System will be activated per the ICP.

KPL regularly initiates ICP tabletop exercises and/or field drills simulating response to potential release scenarios. KPL employees, governmental response agencies, and emergency response contractors participate in the drills for training purposes and to evaluate the effectiveness of emergency response procedures.

KPL, as part of its ongoing public awareness program, maintains liaison with area emergency response officials, such as law enforcement agencies, fire departments, and emergency management agencies that are located in the area of its pipelines and would be reasonably expected to respond in the event of a pipeline emergency. This regular contact allows KPL and the emergency response officials to maintain emergency response plans and a working dialogue in the event of a pipeline release.

(2) Pump Station Construction

As indicated in Section 7853.0630, subpart 2, initial designs include the use of containment berms around pump buildings and impervious materials to contain and minimize the impact of a release. Designs also include provisions for "fire eyes" to detect the presence of flames in the station, combustible gas detectors, level detectors in sumps, pressure and flow monitoring equipment to monitor and alarm when conditions are out of the desired range, and pump seal containment and leak detection equipment to provide notification of a pump seal breakdown. As with other lines and stations in the MPL System that KPL operates, alarm signals from fire detection, pressure monitoring, or a high sump level will result in a station shutdown. A security camera system in addition to the aforementioned will also aid in understanding site conditions and minimizing the impact of an unplanned event.

Before construction, a Project Safety Plan will be developed with the contractors to provide the basis for safely constructing the assets and protecting the environment. The construction contractors will be responsible for implementing the plan, which will include procedures for protecting the environment through safe work practices which limit the potential for a release and provisions for emergency response measures in the event of a release. Project safety inspectors will be responsible to verify the contractors are performing to the requirements of the Project Safety Plan. In addition, the construction contractors will designate a Spill Coordinator who will be responsible for implementing the SWPPP should a construction-related spill occur.

In accordance with the SWPPP, MPL and its contractors will, at a minimum:

- Verify that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills;

- Verify that each construction crew has on hand sufficient tools and materials to safely eliminate the source of the release;

- Know the contact names and telephone numbers for local, state and federal agencies that will be notified of a spill; and

- Follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

Subpart 4: Other Safeguards and Controls. Indicate any other equipment or measures, including erosion control that would be used to reduce the impact of the pipeline. Indicate the types of environmental monitoring, if any, that are planned for the facility and describe relevant environmental monitoring data already collected.

During construction, MPL will install temporary and permanent erosion control measures, as necessary, in accordance with the SWPPPs and permit requirements to control erosion and sedimentation. In addition to post-construction inspections, KPL, as operator of the MPL System, employs comprehensive pipeline integrity and public awareness programs as discussed previously in Section 7853.0270.

7853.0640 INDUCED DEVELOPMENTS.

Subpart 1: Utility Use. Indicate the extent to which the facility would create or add to the need for expanded utilities or public services.

The need for new pump stations drives a parallel need for electric power lines to those sites. The shortest distance that power lines will be constructed from is 3/4 of a mile, and the longest is approximately 18 miles. No other utilities or public services are required, nor expected to be expanded as a result of the Project.

Construction of the Project is scheduled to occur over a 24-month period, beginning January 1, 2016, and an in-service date of the first quarter of 2018. MPL anticipates that the total workforce over this period will be approximately 40 to 50 people.

MPL, through its construction contractors and subcontractors, will attempt to hire local workers, where the local workforce possesses the required skills. Construction personnel hired from outside the Project area will augment the local workforce and will typically consist of crews to perform specialized tasks where local resources may not be available due to workloads or technical abilities.

Local workers will commute from their residences to Project worksites on a daily basis. Non-local workers will reside in the vicinity of the Project for short periods, and they will not typically be accompanied by family members. As a result, incremental demand from non-local workers for public services will be small.

The operation of the pipeline will involve a need for electrical power at the new pump stations. Except for electricity to be supplied to the new pump stations, the Project will not create a need for expanded utilities or public services.

Subpart 2: Water Use. Indicate the amount of water that would be appropriated for use in connection with the pipeline, the expected source of water, and the manner in which the water would be used.

Water will be needed for hydrostatic testing of the piping at each pump station prior to placing it into service. This process involves obtaining water from a nearby source and filling the station piping to allow a pressure test. Water for conducting the hydrostatic tests will be appropriated from a nearby municipal or private water supply source, or a nearby waterbody. The expected source of water for each pump station has not yet been determined. It is estimated that an approximately 50,000 gallon one-time appropriation of water will be needed at each station. The hydrostatic test water will be appropriated in accordance with all applicable regulations. MPL will use its existing water appropriations permits where applicable or will obtain coverage under Minnesota Department of Natural Resources General Permit No. 1997-0005.

In addition, it is possible that small quantities of water may be needed for dust suppression purposes within the construction areas.

Subpart 3: Vehicular Traffic. Estimate the amounts and types of vehicular traffic that would be generated by the facility due to construction activity and, later, operational needs.

Over the course of construction averaging six months per site, vehicular traffic during construction is estimated at: 20 personal vehicles/day and two commercial tractor trailer material and equipment loads, dump truck, concrete truck material loads/day. Subsequent to construction, vehicular traffic at new sites resulting from this work is estimated to be approximately four visits per week by pickup truck type service vehicles.

(1) Construction

Construction traffic related to the delivery of building supplies and the hauling of materials will temporarily increase traffic during construction. These trips will be spaced out through the day and are not expected to have an appreciable effect on peak-hour traffic on any of the roadways near the pump station sites.

(2) Ongoing Operations

During operation of the pipeline, vehicles will periodically travel to locations along the pipeline system, with most visits occurring at the pump station and mainline valve sites, and will not impact traffic flows on roadways near the pump station sites.

Subpart 4: Agriculture. Estimate the number of farms and the number of acres of cropland and pasture land that would be affected by construction of the pipeline. Indicate known circumstances with regard to the pipeline that would tend to reduce agricultural productivity along the route. Estimate the amount of excavation, backfilling, grading, soil compaction and soil mixture, and ditching to be done in farm fields. Estimate the number of drainage ditches to be impacted by the pipeline.

No farms will be affected by pipeline construction, as MPL Line 4 is already in place. At each of the Forest City, Plato, and St. Patrick Station locations, approximately 5-7 acres will be taken out of agricultural use to accommodate the pump station, and there will be no effect on agricultural productivity of adjacent land as a result of pump station construction. In some cases, land beyond that needed specifically for the station may be returned to agricultural use.

Subpart 5: Relocation of Persons. Estimate the number of people that would have to relocate if the pipeline were constructed.

No persons will have to relocate as a result of construction, as the pipeline is already present. With station locations in rural areas, there is adequate land available to construct new pump stations without displacing residents.

CONCLUSION

Section 7853.0130 of the Minnesota Administrative Rules states the criteria the Public Utilities Commission will use in determining whether a certificate of need will be granted to an applicant. The four main criteria are:

A. The probable result of denial would adversely affect the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states;

The MPL Reliability Project will increase the pumping capacity on the MPL System's newest pipeline – MPL Line 4 – in order to maintain reliable crude oil supplies to Minnesota Refineries.

MPL is currently the only pipeline system supplying crude oil directly to Minnesota's two refineries. These refineries produce the vast majority of transportation fuels and other refined products on which Minnesotans rely, such as heating fuels and asphalt. The refineries also help meet regional demand, supplying significant percentages of the fuels used in surrounding states. If the Certificate of Need were not issued for this Project, then MPL would not be able to maintain reliable and sufficient crude oil supplies to Minnesota Refineries, which would negatively affect MPL, MPL's customers, and the people of Minnesota and neighboring states.

B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant;

As stated in the application, no other alternative to this Project has been demonstrated by a preponderance of the evidence to be a feasible or viable option due to logistical, economic or environmental aspects of the proposed alternatives. The Project is the most reasonable and prudent means of providing reliability to the MPL System, resulting in a dependable and stable supply of crude oil to the two Minnesota Refineries and neighboring states.

C. The consequences to society of granting the certificate of need are more favorable than the consequences of denying the certificate; and

The consequences of granting the Certificate of Need for this Project would be assurance that Minnesota Refineries will continue to have sufficient and reliable crude oil supplies to meet demand for transportation fuels and other refined products.

Gasoline, diesel, jet fuel, and other petroleum-based products remain essential to the economy. The Project is critical to maintain adequate supplies of these products while maintaining the long-term safety and reliability of the MPL System.

The consequences of not granting the Certificate of Need for this Project would be the instability of supply of crude oil to the state's only two refineries, the inability to perform maintenance without disrupting crude oil supplies to the refineries, the shortage of refined petroleum products produced, and potentially higher fuel prices.

D. It has not been demonstrated on the record that the design, construction or operation of the proposed facility will fail to comply with those relevant policies, rules and regulations of other state and federal agencies and local governments.

MPL has proven through its relationship with KPL that it is able to successfully build, operate and maintain pipelines and associated facilities in the State of Minnesota and elsewhere with a high degree of safety, reliability, efficiency and integrity. KPL and MPL partner with local, regional and federal governments and agencies to maintain safe and efficient operation and maintenance of their pipelines and associated facilities. The design, construction and operation of the proposed pump stations will comply with all applicable policies, rules and regulations of other state and federal agencies and local governments.

9326109v1