



Site Qualification Guide

Grand Rapids, MN



A letter from the CEO:

Our mission, and ultimately SynSel's financial success, is driven by a social responsibility to produce Advanced Biofuels. In return this fuel production revitalizes rural America, enhances America's energy independence, and fights global warming. We've assembled a leading team to bring a best-in-breed technology platform to market to accomplish our mission and start the Advanced Biofuel Revolution.

Locally grown and renewable wood waste feedstock is used to produce our drop-in fuels. This waste wood is overly abundant and readily available at the sites highlighted in this Site Qualification Guide.

The changing landscape of rural American industry has resulted in the closing of manufacturing plants like paper mills. Communities built on forest-related industries are under duress. SynSel provides an outlet for waste wood to be used in a highly profitable and eco-friendly manner. Each plant creates nearly 250 direct and indirect jobs, not to mention generating nearly 2,500 construction jobs. The end result is Resilient Communities that can continue to succeed in forest-related industries.

One SynSel Biorefinery at a time, we will do our part to rebuild rural America and increase our energy security. Are you ready to join our Advanced Biofuel Revolution?

Respectfully yours,



Tim Tawoda



Sustainable Forestry

Although renewable waste wood feedstock is readily available across the US, SynSel works with and supports organizations that use best practices in sustainable forestry. We promote Environmental Stewardship for landowners within our procurement zones.

SynSel's biomass will be procured in accordance of multiple third-party certification programs including:

- The Forest Stewardship Council
- The Sustainable Forestry Initiative (SFI)
- The Program for the Endorsement of Forest Certification (PEFC)
- The American Tree Farm System

We will continue to promote certifications across the supply chain with an emphasis on sustainable forestry – one SynSel Biorefinery at a time.

Enviro Industrial Parks

SynSel is throwing away the “Take, Make, Waste” model of production where waste is landfilled. Instead, we are further creating a Post-Carbon Economy that is designed to use the byproducts from the production of biofuel to provide material streams that are efficiently reused. The benefits of this approach are clear: less waste, improved environmental impact, and lower costs. We will also provide opportunities to further mitigate waste from the community.

The clustering of these manufacturing and service organizations near SynSel plants allows for the sharing of resources – infrastructure, inputs, and information – for better economic, environmental, and social performance.



Community Resiliency

Rural America needs help. Plant closures and job loss have stressed local communities. What remains is high unemployment, underutilized manufacturing zones, and excess wood feedstock.

The locations highlighted in this Site Qualification Guide are an ideal fit for a SynSel Biorefinery. These projects have the necessary support by local and state officials. There is a qualified and available workforce. Plus, there is an abundance of wood feedstock required for SynSel Plants to produce drop-in fuels.

One Biorefinery at a time, SynSel does its part to rebuild rural America and strengthen community resiliency.

Responsible Investing

Today's Socially Responsible Investor has a lot to consider when making investment decisions. What is the technology and its environmental impact? What's the source of feedstock? What's the carbon footprint of production and transportation? Where is the product produced and by whom? Not to mention, what is the return?

SynSel Biorefineries use a breakthrough catalytic process to produce drop-in fuels that reduces greenhouse gas emissions by over 65% compared to fossil fuel-based equivalents. Locally grown wood is used for the "American-made" fuel. The drop-in fuel price is market-driven, while wind and solar sell electricity back to the grid at a price set by the utility company.



Site Specifications

Industrial Site Information

CityGrand Rapids
CountyItasca
Elevation1286 ft
Site Acreage138.09 +
Zoning ClassificationIndustrial, Commercial

Transportation

Adjacent RoadwayState Hwy 38
Adjacent RoadwayUS Hwy 2
Nearest Airport.....Grand Rapids Municipal
Distance.....4 Miles
Nearest International Airport.....Duluth, MN
Distance.....75 Miles
Nearest Deep-Water PortDuluth, MN
Distance.....75 Miles
Nearest railroadCanadian Northern and Regional
Distance.....On-Site

Utilities

Natural Gas

Is available to Site?Yes
Gas CompanyMinnesota Energy Resources Company National Gas

Electricity

Name of Power CompanyMinnesota Power

Water

Water SupplierSite
Permitted to Draw from Mississippi River

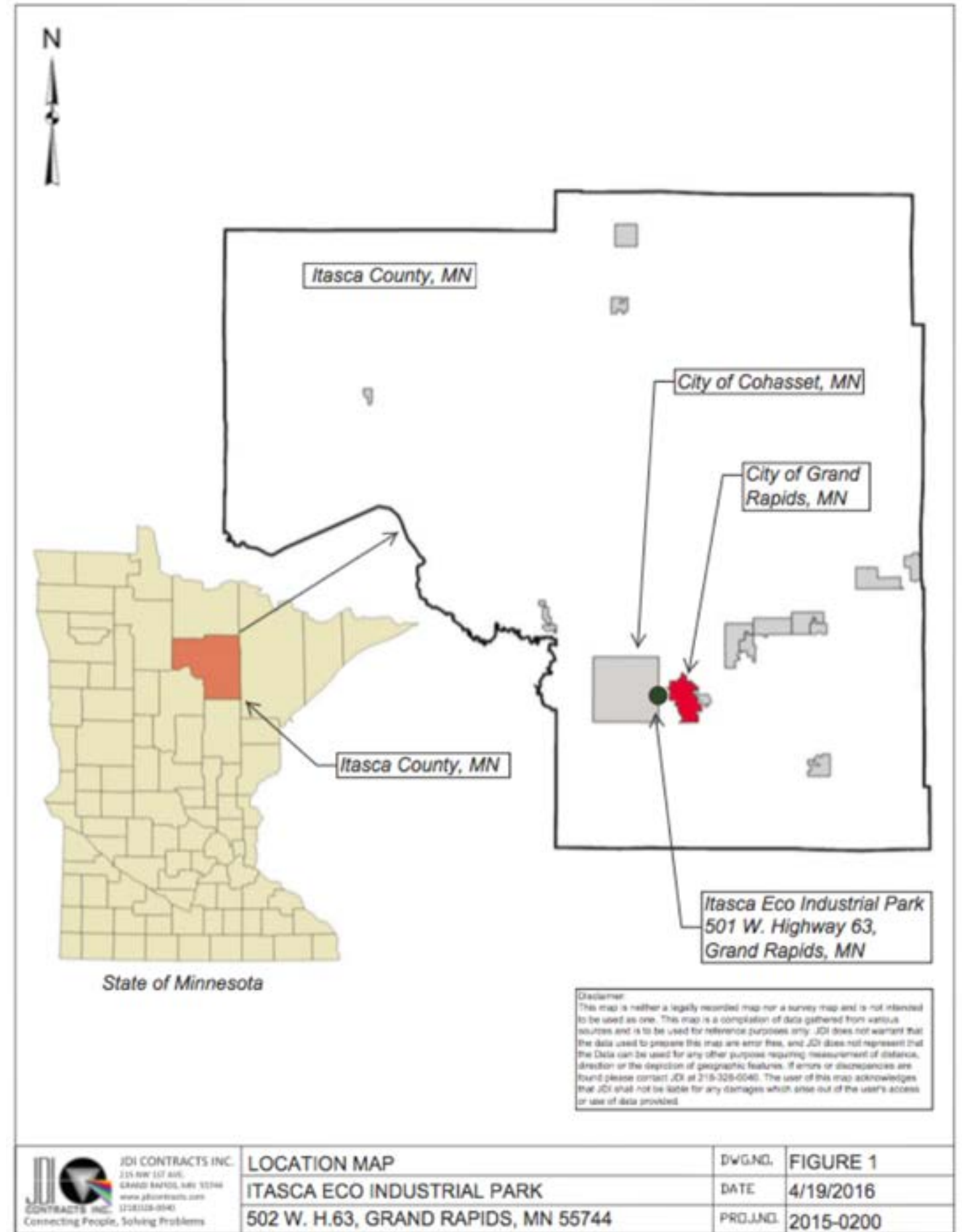
Sanitary Sewer

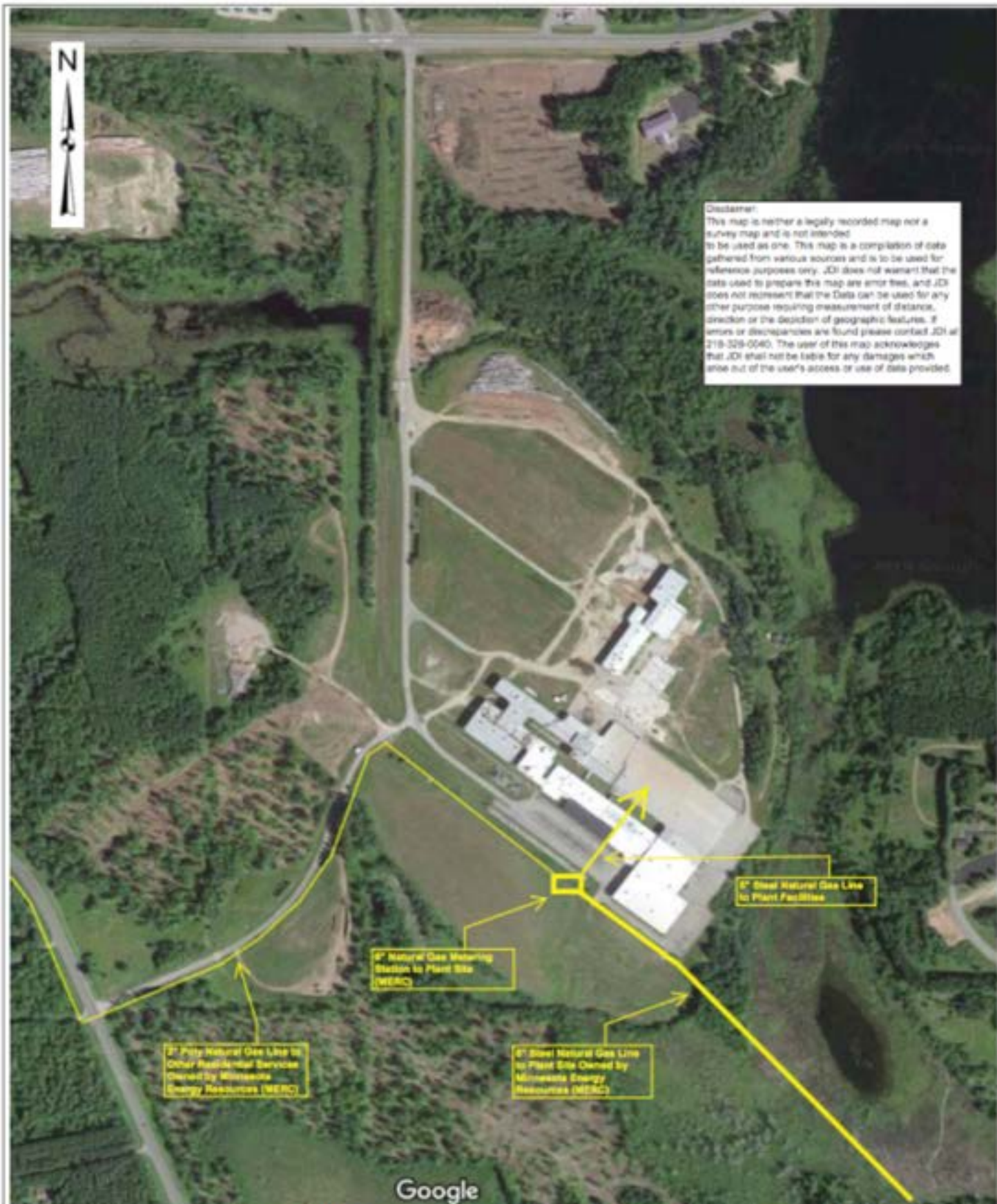
Sewer SupplierCity


Economy (County)

Current Unemployment6.30%
Population estimates45,564

Grand Rapids




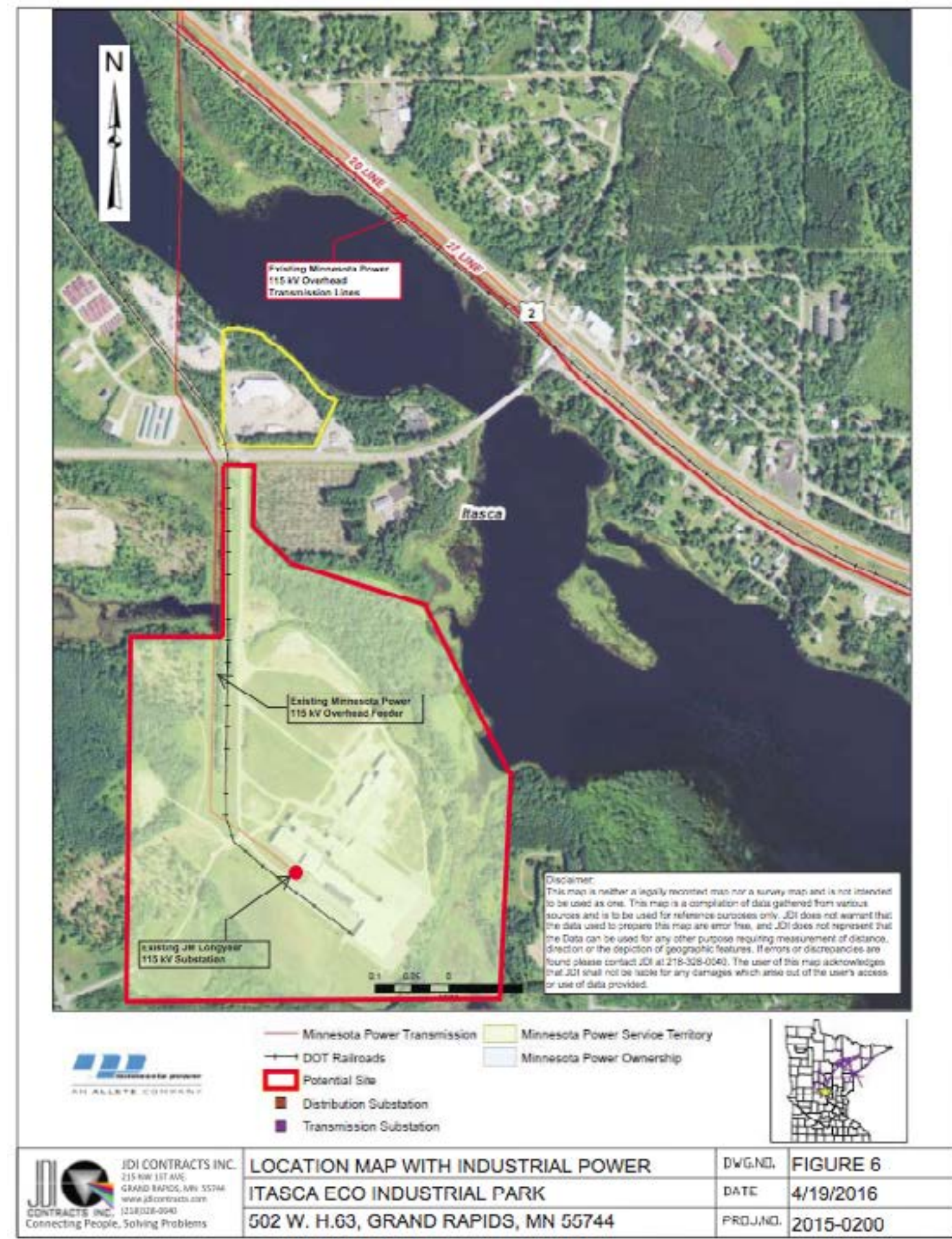


 JDI CONTRACTS INC. 215 NW 117 AVE. GRAND RAPIDS, MN 55744 www.jdicontracts.com (218) 328-0040	LOCATION MAP WITH MERC NAT. GAS ACCESS		DWG. NO.	FIGURE 8
	ITASCA ECO INDUSTRIAL PARK		DATE	4/19/2016
	502 W. H.63, GRAND RAPIDS, MN 55744		PROJ. NO.	2015-0200



Disclaimer:
This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of data gathered from various sources and is to be used for reference purposes only. JDI does not warrant that the data used to prepare this map are error free, and JDI does not represent that the Data can be used for any other purpose requiring measurement of distance, direction or the depiction of geographic features. If errors or discrepancies are found please contact JDI at 218-328-0040. The user of this map acknowledges that JDI shall not be liable for any damages which arise out of the user's access or use of data provided.

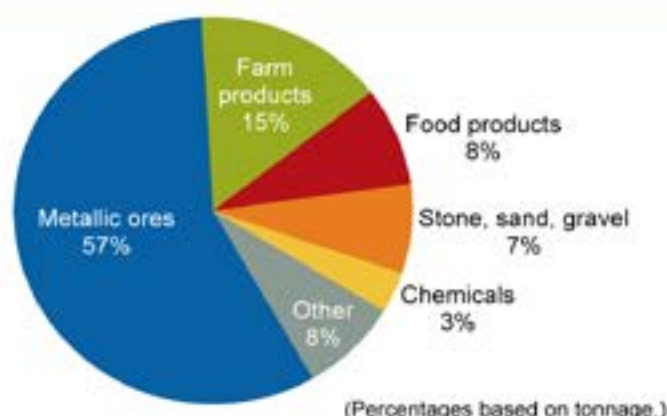
 JDI CONTRACTS INC. 215 NW 117 AVE. GRAND RAPIDS, MN 55744 www.jdicontracts.com (218) 328-0040	LOCATION MAP WITH MAINLINE GAS ACCESS		DWG. NO.	FIGURE 9
	ITASCA ECO INDUSTRIAL PARK		DATE	4/19/2016
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Rail Fast Facts For 2012

Operations	Number of freight railroads	18
	Freight railroad mileage	4,450
Employment and Earnings	Number of freight rail employees	4,566
	Average wages & benefits per freight rail employee	\$113,270
Railroad Retirement	Number of railroad retirement beneficiaries	14,518
	Railroad retirement benefits paid	\$298 million
Economic Impact	Nationwide, each freight rail job supports 4.5 jobs elsewhere in the economy. Each \$1 billion in new rail investment supports more than 17,000 jobs.	
Fuel Efficiency	In 2013, America's railroads moved a ton of freight an average of 473 miles on one gallon of fuel. That's like going from Minneapolis to Springfield, IL. On average, railroads are four times more fuel efficient than trucks. Moving freight by rail instead of truck reduces greenhouse gas emissions by 75 percent.	
Cutting Highway Gridlock	One train can carry as much freight as several hundred trucks. It would have taken approximately 13.8 million additional trucks to handle the 248.4 million tons of freight that originated in, terminated in, or moved through Minnesota by rail in 2012.	

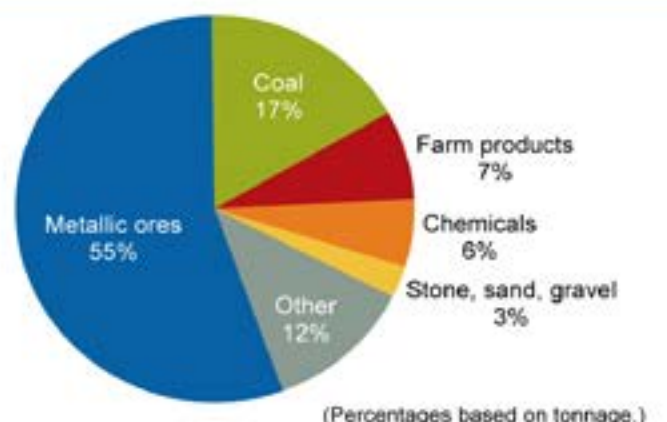
Rail Traffic Originated in 2012 Total Tons: 90.3 million Total Carloads: 1,171,300



Commodity	Tons	Carloads
Metallic ores	51,868,000	631,800
Farm products	13,947,000	141,800
Food products	7,475,000	85,000
Stone, sand, gravel	6,728,000	74,900
Chemicals	3,095,000	32,900
Other	7,225,000	204,800

Minnesota's Mesabi Range is one of the world's largest iron ore mining regions; in 2012, Minnesota accounted for 74 percent of originated rail tons of iron ore. Farm products was mostly corn, with some soybeans and wheat.

Rail Traffic Terminated in 2012 Total Tons: 70.3 million Total Carloads: 967,500



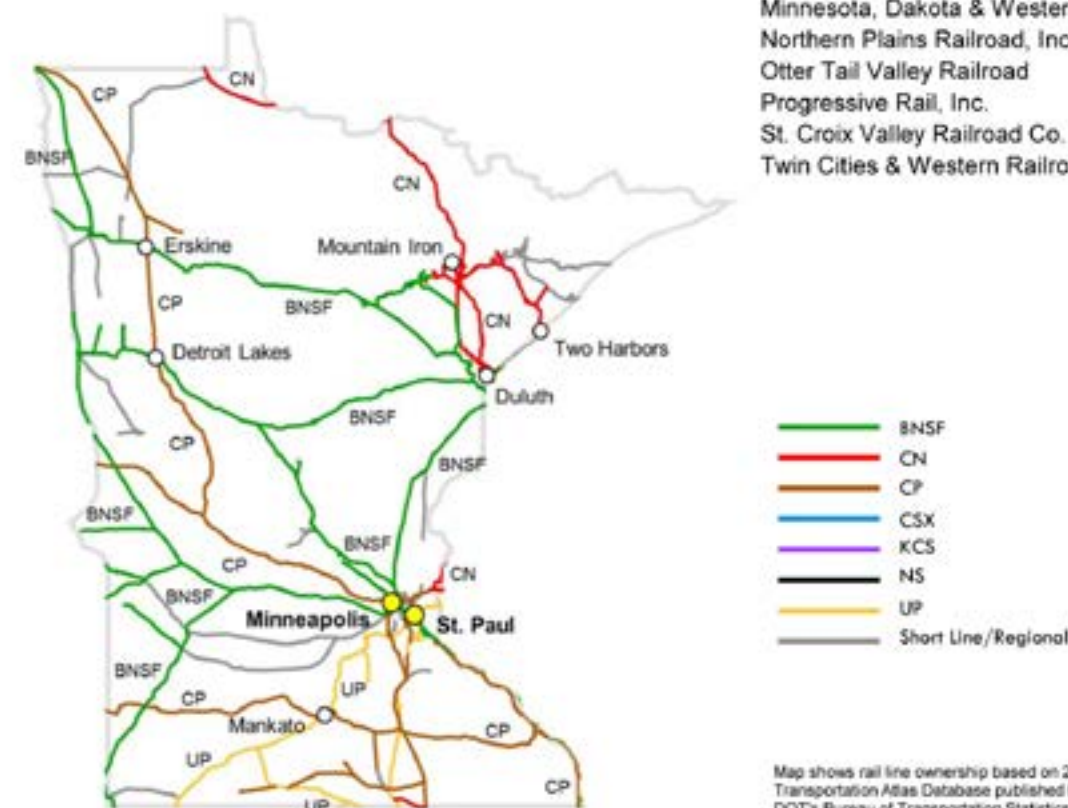
Commodity	Tons	Carloads
Metallic ores	38,863,000	509,200
Coal	11,942,000	101,600
Farm products	5,226,000	48,700
Chemicals	3,976,000	41,600
Stone, sand, gravel	1,857,000	25,900
Other	8,391,000	240,400

In 2012, 44 percent of the electricity generated in Minnesota was coal-fired; most of the coal used by power plants in Minnesota was delivered by railroads.

Class I Railroads	Miles Operated In Minnesota in 2012	Minnesota 2012 Totals		
		Number of Freight Railroads	Miles Operated Excluding Trackage Rights	Miles Operated Including Trackage Rights
BNSF Railway Company	1,671	4	3,625	4,421
Grand Trunk Corporation (CN)	380			
Soo Line Railroad Co. (CP)	1,724			
Union Pacific Railroad Co.	646			
	4,421			
Canadian Railroads*				
Canadian National	44			
	44			
Regional Railroads				
Red River Valley & Western Railroad Co.	32			
	32			
Switching & Terminal Railroads				
Cloquet Terminal Railroad Company, Inc.	4			
Minnesota Commercial Railway	137			
Northern Lines Railway	28			
	169			

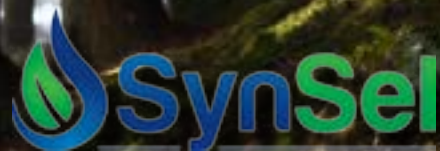
*Canadian-owned lines not affiliated with a U.S. rail subsidiary.

Local Railroads		Miles Operated In Minnesota in 2012
Minnesota Northern Railroad, Inc.		186
Minnesota Prairie Line		94
Minnesota Southern Railway, Inc.		42
Minnesota, Dakota & Western Railway		2
Northern Plains Railroad, Inc.		49
Otter Tail Valley Railroad		72
Progressive Rail, Inc.		97
St. Croix Valley Railroad Co.		35
Twin Cities & Western Railroad Co.		218
		795



Map shows rail line ownership based on 2011 National Transportation Atlas Database published by the U.S. DOT's Bureau of Transportation Statistics.

Class I Railroad: A railroad with 2012 operating revenues of at least \$452.7 million. **Regional Railroad:** A non-Class I line-haul railroad that has annual revenues of at least \$40 million, or that operates at least 350 miles of road and revenues of at least \$20 million. **Local Railroad:** A railroad which is neither a Class I nor a Regional Railroad, and which is engaged primarily in line-haul service. **Switching & Terminal Railroad:** A non-Class I railroad engaged primarily in switching and/or terminal services for other railroads. Railroads operating are as of December 31, 2012. Some mileages may be estimated.



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