

# Ontonagon SynSel

Site Qualification Guide





## A letter from the CEO:

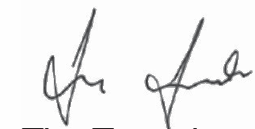
SynSel's mission is driven by socially responsible investing to produce Renewable Second-Generation Biofuels. We've assembled a leading team to bring this best-in-breed technology to market. Our goal is deploying our repeatable platform to 100 sites across the US and Canada in the next eight years.

Many rural communities are struggling from the closing of paper mills. Our Biorefineries complement existing forest-related industries within these communities by providing a profitable and eco-friendly outlet for waste wood. We use this wood to produce American-made, drop-in fuels. The production process is also good for the environment and provides a reduction in greenhouse gas emissions compared to fossil fuel-based equivalents.

Government incentives to create jobs and reduce carbon footprints are shepherding the petroleum industry to support America's burgeoning synthetic fuel sector. The SynSel fuel platform garners the highest priority and rewards from mandates designed to avoid the shortcomings of ethanol and biodiesel fuel.

Not only does your socially responsible and impact investor achieve an attractive return that is good for the environment, it also creates nearly 250 direct and indirect jobs at each site. 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 increase national energy security, combat global warming, and increase resiliency in rural America. Are you ready to join the SynSel Synthetic Fuels 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 "Americanmade" 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.





# SynSel Ontonagon

## Site Specifications

### Industrial Site Information

City ..... Ontonagon  
County ..... Ontonagon  
Elevation..... 607 ft  
Site Acreage ..... 160  
Zoning Classification ..... Industrial, Commercial

### Transportation

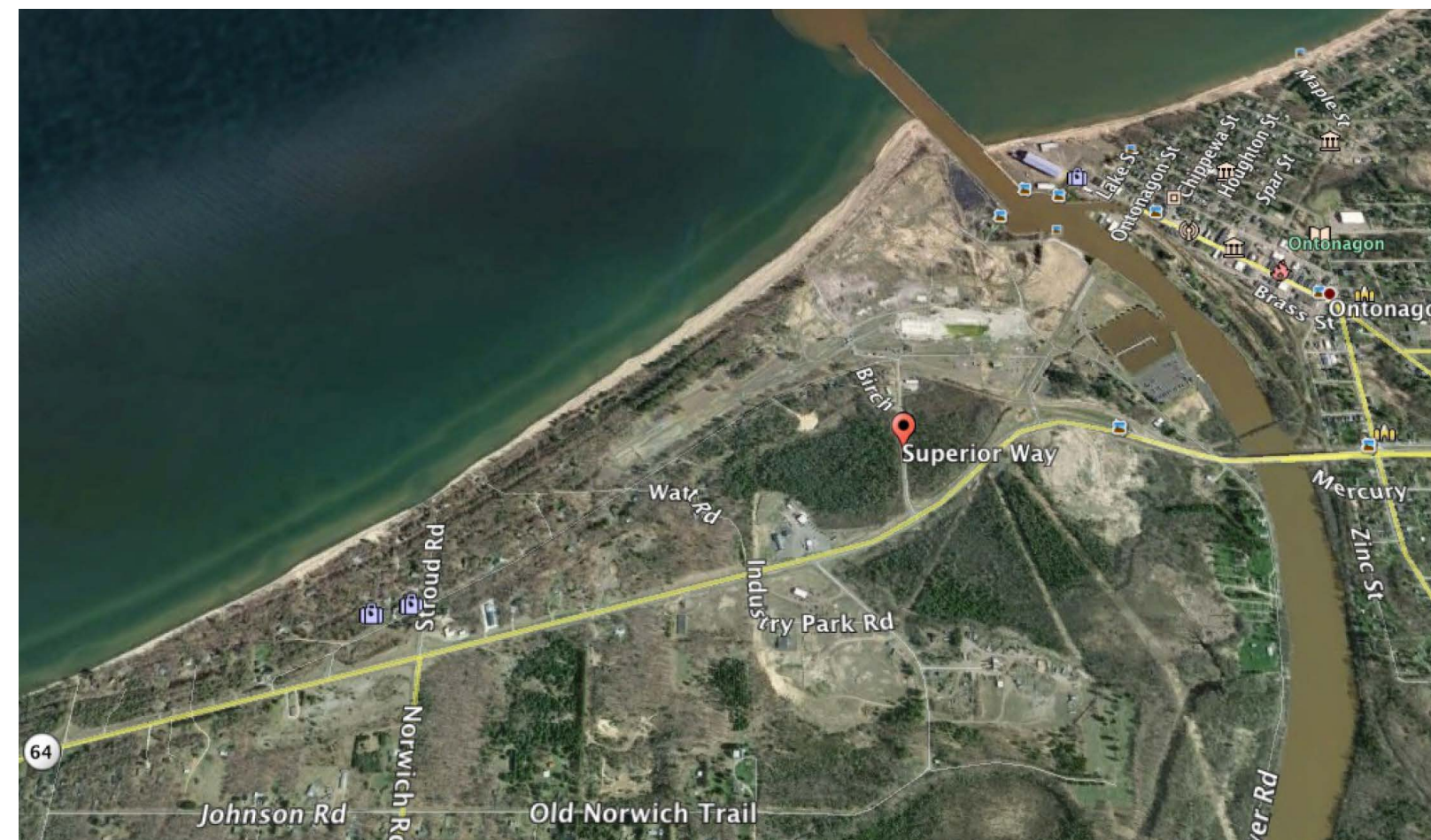
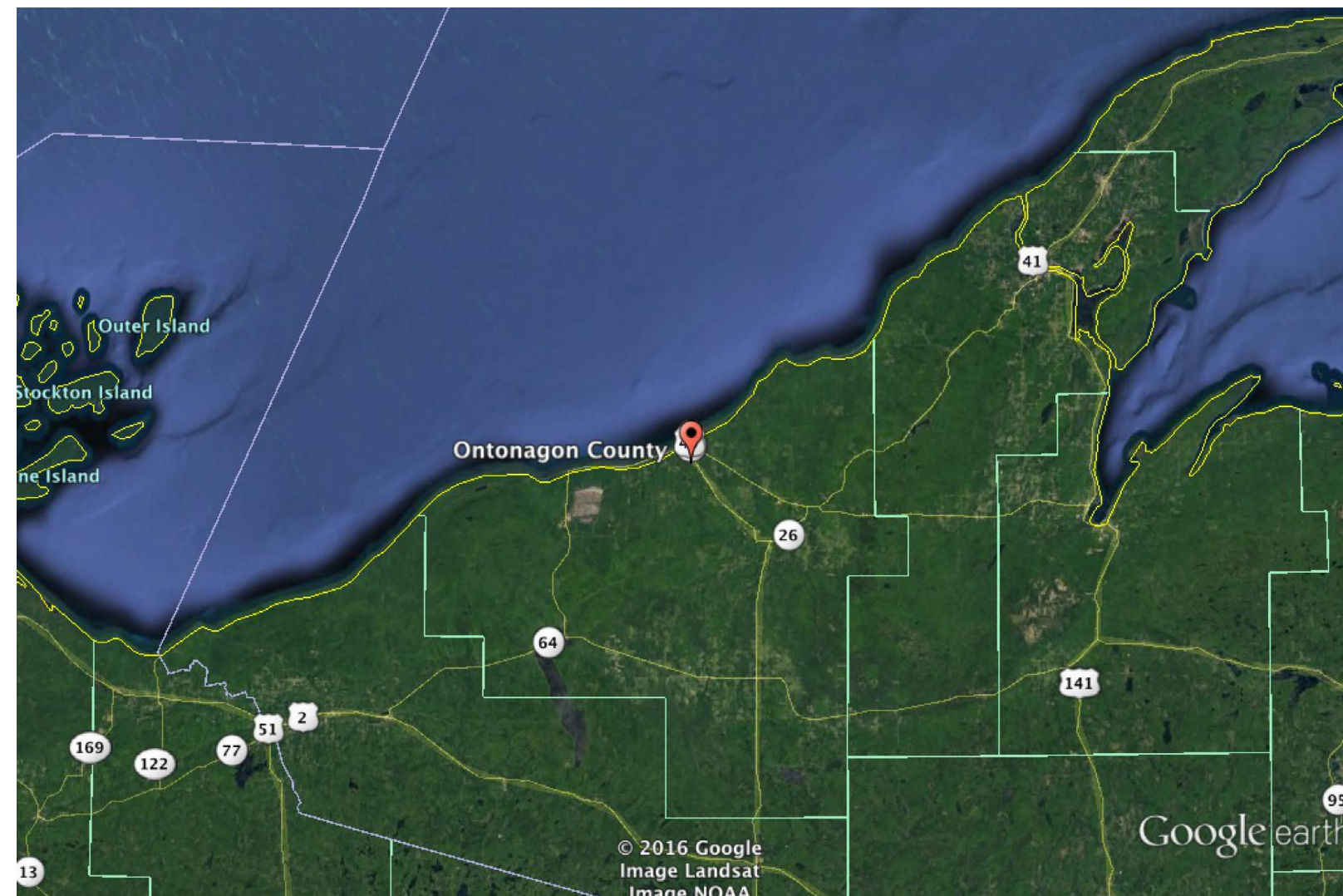
Adjacent Roadway..... State Hwy M64  
Adjacent Roadway..... US Hwy 45  
Nearest Airport..... Houghton, MI  
Distance..... 59 Miles  
Nearest International Airport..... Duluth, MN  
Distance..... 176 Miles  
Nearest Deep-Water Port..... Ontonagon, MI  
Distance..... On-Site  
Nearest Railroad..... Canadian Northern and Regional  
Distance..... On-Site

### Utilities

*Natural Gas*  
Is available to Site? ..... Yes  
Gas Company..... City  
*Electricity*  
Name of Power Company ..... City  
*Water*  
Water Supplier..... City  
*Sanitary Sewer*  
Sewer Supplier ..... City

### Economy (County)

Current Unemployment ..... 6.10%  
Population estimates ..... 6,322





## LEGEND

1. FEEDSTOCK STORAGE
2. TRACK RUN FOR TRANSPORT
3. LAKE WATER ACCESS POINT
4. TRUCK TRAFFIC ACCESS POINT, IN AND OUT
5. PLANT SHIPPING AND RECEIVING
6. NON-COMMERCIAL VEHICLE ACCESS POINT
7. NON-MANUFACTURING COMMERCIAL BUILDINGS
8. ONSITE POWER TRANSFORMER
9. WATER COLLECTION AND PRETREATMENT/PURIFICATION
10. DUST COLLECTION AND STORAGE
11. OPERATIONS BUILDINGS/AREA (6-7 SEPARATE)
  - A. FEEDSTOCK CONDITIONING
  - B. IH2 PROCESS
  - C. HYDROGEN PRODUCTION AND CO2 SCRUBBING & RECOVERY
  - D. PRODUCT RECOVERY AND REFRACTION (INTO 3 FUELS-GASOLINE, DIESEL, & AVIATION)
  - E. POWER AND UTILITIES
  - F. CHAR RECEIVING AND PROCESSING
12. TANK FARM
13. DOCK AND BARGE AREA
14. HYDROELECTRIC TURBINE

### Property Drawing of:

Part of the Former Mill Property in Sections 25 and 26, T52N, R40W, Village of Ontonagon and Township of Ontonagon, Ontonagon County, Michigan

#### Notes:

1. Parcel Letters shown are from Exhibit A legal description as used on deed from Stone Container to AIM Demolition USA, LLC.
2. Parcel 1 is a new exclusion.
3. Shaded parcels are to be included



**TIMBERLINE LAND SURVEYING**  
P.O. Box 63, Ontonagon, MI 49953  
(906)884-6080 FAX(906)884-6080

Date Drawn: July 31, 2015  
SCALE: 1" = 200'  
File: 1190-00a  
Job: 1190-00

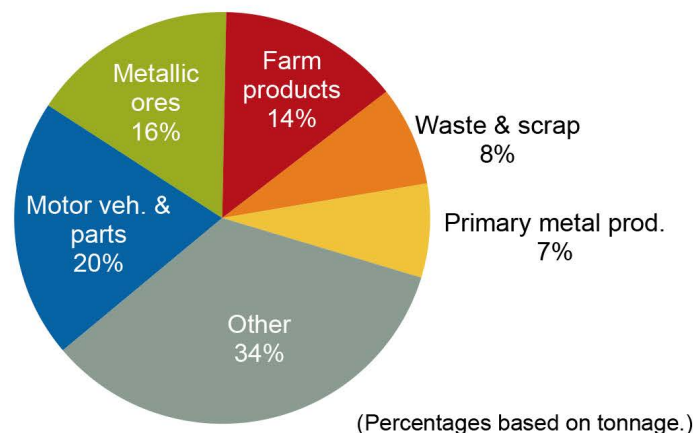




## Rail Fast Facts For 2012

<b>Operations</b>	Number of freight railroads	27
	Freight railroad mileage	3,542
<b>Employment and Earnings</b>	Number of freight rail employees	3,194
	Average wages & benefits per freight rail employee	\$109,450
<b>Railroad Retirement</b>	Number of railroad retirement beneficiaries	13,615
	Railroad retirement benefits paid	\$279 million
<b>Economic Impact</b>	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.	
<b>Fuel Efficiency</b>	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 Detroit to Iowa City, IA. 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.	
<b>Cutting Highway Gridlock</b>	One train can carry as much freight as several hundred trucks. It would have taken approximately 4.8 million additional trucks to handle the 86.0 million tons of freight that originated in, terminated in, or moved through Michigan by rail in 2012.	

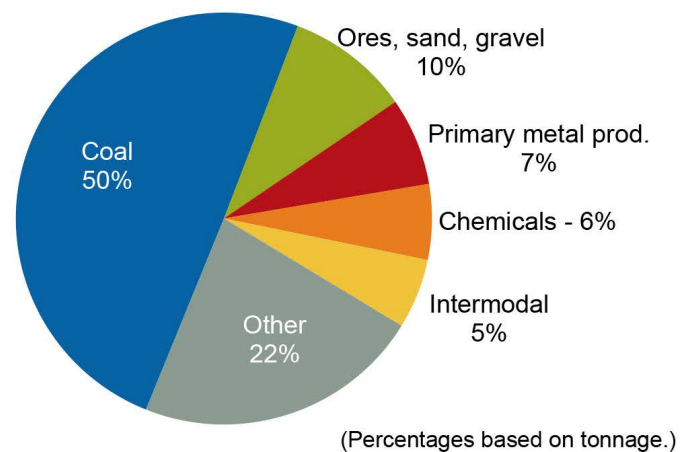
## Rail Traffic Originated in 2012 Total Tons: 21.9 million Total Carloads: 572,400



Commodity	Tons	Carloads
Motor veh. & parts	4,448,000	262,800
Metallic ores	3,519,000	43,700
Farm products	3,101,000	29,800
Waste & scrap	1,711,000	21,300
Primary metal prod.	1,615,000	18,200
Other	7,481,000	196,500

In 2012, Michigan led the nation in originated motor vehicle traffic and was third in originated rail tons of metallic ores (which in Michigan's case is iron ore). Corn and soybeans account for the vast majority of farm products originated in Michigan.

## Rail Traffic Terminated in 2012 Total Tons: 32.7 million Total Carloads: 545,700



Commodity	Tons	Carloads
Coal	16,217,000	135,100
Ores, sand, gravel	3,148,000	43,000
Primary metal prod.	2,249,000	25,300
Chemicals	1,935,000	23,200
Intermodal	1,789,000	140,700
Other	7,314,000	178,400

In 2012, 49 percent of the electricity generated in Michigan came from coal, and much of that coal was delivered by rail. Michigan was seventh in terminated rail tons of both primary metal products and metallic ores in 2012.

	Miles Operated In Michigan in 2012	Miles Operated	
		Number of Freight Railroads	Excluding Trackage Rights Including Trackage Rights
<b>Class I Railroads</b>			
CSX Transportation	559		
Grand Trunk Corporation (CN)	930		
Norfolk Southern Corp.	488		
Soo Line Railroad Co. (CP)	80		
	2,057		
<b>Canadian Railroads*</b>			
Canadian National	1		
	1		
<b>Regional Railroads</b> (none)			
<b>Switching &amp; Terminal Railroads</b>			
Adrian & Blissfield Rail Road Co.	30		
Charlotte Southern Railroad	3		
Conrail, Inc.	96		
Delray Connecting Railroad	1		
Detroit Connecting Railroad Company	2		
Lapeer Industrial Railroad Company	1		
Michigan Shore Railroad	67		
Michigan Southern Railroad Company	18		
West Michigan Railroad Co.	15		
	233		
<b>Michigan 2012 Totals</b>			
Class I	4	1,557	2,057
Canadian*	1	1	1
Regional	0	0	0
Local	13	1,751	1,831
Switching & Terminal	9	233	233
<b>Total</b>	<b>27</b>	<b>3,542</b>	<b>4,122</b>

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

	Miles Operated In Michigan in 2012
<b>Local Railroads</b>	
Ann Arbor Railroad Co.	47
Escanaba & Lake Superior Railroad	226
Grand Elk Railroad, LLC	103
Grand Rapids Eastern Railroad	27
Great Lakes Central Railroad	396
Huron & Eastern Railway	405
Indiana & Ohio Railway, The	44
Indiana Northeastern Railroad Co.	70
Jackson & Lansing Railroad Company	45
Lake State Railway Co.	236
Lake Superior & Ishpeming Railroad	56
Marquette Rail, LLC	133
Mid-Michigan Railroad, Inc.	43
	1,831



— BNSF  
— CN  
— CP  
— CSX  
— KCS  
— NS  
— UP  
— Short Line/Regional

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.





445 W. Fullerton Ave.  
Elmhurst, IL 60126  
630-516-1287  
[www.SynSel.com](http://www.SynSel.com)