

# **Mesabi Metallics Company LLC**

## **Air Boundary Control Plan**

**Revision Date**  
**May 20, 2019**

## **I. Site General Description**

The Mesabi Metallics Company LLC (MMCL) project is located north of Nashwauk, Minnesota at the former Butler Taconite mine site that closed in the mid-1980s. The project was initiated by Minnesota Steel Industries LLC (“MSI”), which completed environmental review, secured mineral rights, and obtained the core environmental permits needed to construct a taconite facility. Essar Steel Limited acquired MSI in 2007 and changed the company’s name to Essar Steel Minnesota LLC (ESML) in 2008. The company changed its name to MMCL in 2017.

The project includes three phases, to be constructed in sequence: (1) a taconite mine and pellet plant; (2) a direct reduced iron (“DRI”) module; and (3) an electric arc steel mill. As the largest economic development project on the Iron Range in over four decades, the project is expected to employ approximately 350 full-time employees when operational and generate close to 630 spin-off jobs.

## **II. Control Methodology**

Due to the vast distances of the project, MMCL will need to control the perimeter using multiple methods. In addition to MMCL using physical barriers to enter the site, MMCL will post the boundary with no trespassing signs and patrol the boundary with security guard personnel. MMCL will inspect the complete site boundary at a minimum of once per year in the fall and more frequently as needed.

### **A. Planned Control Methodology**

#### **1. Description**

The project has over 34.3 miles of perimeter to control. There are two major areas of the site that need to be controlled. These areas consist of the mine/plant area and the tailing basin. The mine/plant area has a perimeter of greater than 23.5 miles and is the single largest continuous area that needs to be controlled. The tailing basin area is the second largest area and has a perimeter greater than 10.8 miles. The map attached as Figure 1 map shows the planned control methodology at MMCL.

#### **2. Types of parameter controls**

- **Four strand barbed wire fence**

MMCL plans to use a fence 5 feet tall consisting of four strands of barbed wire. The wire will be 12½-gauge wire that has 2 points on 4 inch spacing. The average spacing of posts on flat stable ground will be 12 to 14 feet in spacing. The total four strand barbed wire fencing requirement will be 124,392 feet of fence.

- **Chain link fence**

The chain link fence will be 6 feet tall with pole spacing approximately every 10 feet. The total chain link-fencing requirement will be 26,105 feet of fence.

- **Mine pit high walls and stockpiles**

The high wall boundaries consist of natural or artificial changes in elevation where it would be unsafe to enter the site via these locations. MMCL plans to use 2,596 feet of high wall to be a physical barrier to the site.

- **Lakeshore and deep water wetlands**

MMCL plans to use natural and manmade lakeshore and deep-water wetlands as a physical boundary on the shorelines adjacent to the boundary. MMCL has 5.1 miles of shoreline that is used

to control the air boundary. MMCL will install trail cameras with cellular cards on the shorelines where beach landings are possible.

- **Gates and entrances**

MMCL has 945 feet of openings and entrances to the site. MMCL will gate off the entrances or have security stations and or cameras at entrances.

- **Roaming security guards**

MMCL will have security guard personnel be responsible for monitoring the perimeter of the site as well as monitoring all access points.

- **Operations personnel**

MMCL shift supervisors and production personal will monitor work areas for safety and report trespassers.

- **Digital surveillance**

At main entrances, MMCL will have real time cameras. MMCL will install trail cameras with cellular cards as needed for new areas. MMCL will perform aerial surveys with a drone or aircraft once per week as part of the blasting security procedure.

## **B. Alternative Control Methodology**

### 1. Description

Certain parcels within MMCL's project boundary are currently subject to legal disputes. If MMCL does not prevail in those legal disputes, its project boundary will be altered and will require an alternative boundary control methodology. If MMCL were to lose all of the current legal disputes, the project would have over 43.6 miles of perimeter to control in four major areas of the site. These areas would consist of the mine/plant area, the tailing basin, the research island, and the pellet island. The mine/plant area would have a perimeter of greater than 26.5 miles and would be the single largest continuous area that would need to be controlled. The tailing basin area would remain unchanged as the second largest area with a perimeter greater than 10.8 miles. The research island would contain a perimeter of greater than 4.7 miles. Lastly, the pellet island would consist of two parcels within the plant area that has a perimeter of 1.5 miles. The map attached as Figure 2 shows the alternative control methodology that MMCL would use if it were to lose control of the disputed parcels within its project area.

### 2. Types of Parameter Controls

- **Four strand barbed wire fence**

MMCL plans to use a fence 5 feet tall consisting of four strands of barbed wire. The wire will be 12½-gauge wire that has 2 points on 4 inch spacing. The average spacing of posts on flat stable ground will be 12 to 14 feet in spacing. The total four-strand barbed wire fencing requirement will be 163,630 feet of fence.

- **Chain link fence**

The chain link fence will be 6 feet tall with pole spacing approximately every 10 feet. The total chain link-fencing requirement will be 19,820 feet of fence.

- **Mine pit high walls and stockpiles**

The high wall boundaries consist of natural or artificial changes in elevation where it would be unsafe to enter the site via these locations. MMCL plans to use 8,283 feet of high wall to be a physical barrier to the site.

- **Buoys and floating booms**

MMCL plans to use buoys and floating booms to control access to the site in mine pit until the pit is completely dewatered and a different methodology is used. Approximately 8,200 feet of floating boom will be required to control access in pits 1 and pit 5. Once dewatering of pit or pits is completed, MMCL will install and maintain a fence line until a high wall is developed and the maintenance of the fence is in no longer safe.

- **Lakeshore and deep water wetlands**

MMCL plans to use natural and manmade lakeshore and deep-water wetlands as a physical boundary on the shorelines adjacent to the boundary. MMCL has 4.8 miles of shoreline that is being used to control the air boundary. MMCL will install trail cameras with cellular cards on the shorelines where beach landings are possible.

- **Gates and entrances**

MMCL has 1,780 feet of openings and entrances to the site. MMCL will gate off the entrances or have security stations and or cameras at entrances.

- **Roaming security guards**

MMCL will have security guard personnel be responsible for monitoring the perimeter of the site as well as monitoring all access points.

- **Operations personnel**

MMCL shift supervisors and production personal will monitor work areas for safety and report trespassers.

- **Digital surveillance**

At main entrances, MMCL will have real time cameras. MMCL will install trail cameras with cellular cards as needed for new areas. MMCL will perform aerial surveys with a drone or aircraft once per week as part of the blasting security procedure.

Figure 1

Boundary Control Map

Planned Control Methodology

# Mesabi Metallics Company LLC

## Figure 1

**Legend**

- 4 Strand Barbed Wire
- Mine or Stock Pile High Wall
- Lake Shores, Deep wetlands
- Grass and -horizons
- Chain Link Fence

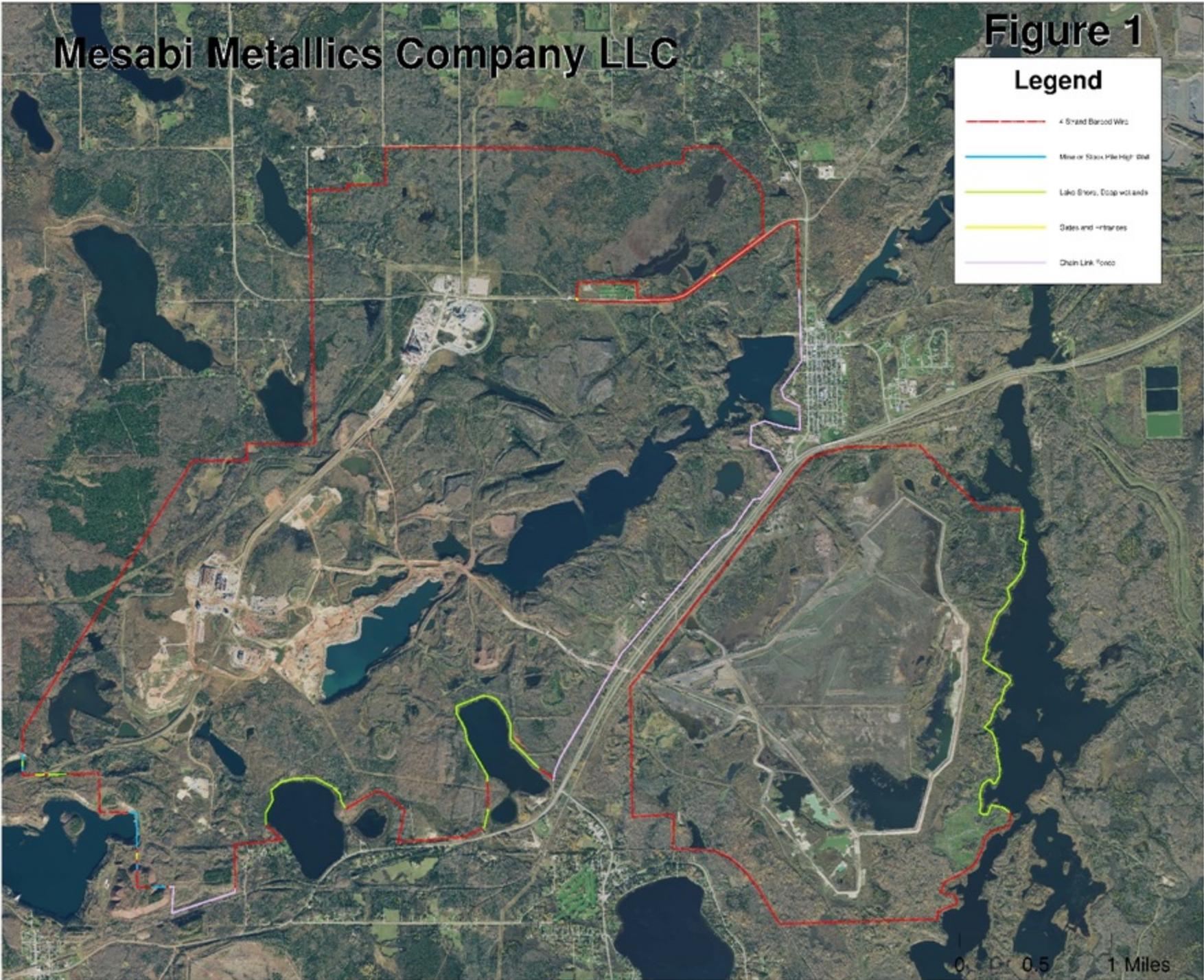


Figure 2

Boundary Control Map

Alternative Control Methodology

# Mesabi Metallics Company LLC

## Figure 2

- Legend**
- 4 Strand Barbed Wire
  - Mine or Stock Pile High Wall
  - Lake Shore, Deep wetlands
  - Gates and Entrances
  - Chain Link Fence
  - Buoys and Floating Boom

