



# **VISUAL RESOURCES VOL 1**

## **BASELINE DATA AND METHODS**

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### **TWIN METALS MINNESOTA PROJECT**

Environmental Review Support Document

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**Prepared for Twin Metals Minnesota, LLC**  
**Prepared by**

Document No. TMM-ES-025-0149-01  
Revision 0A  
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## **REVISION RECORD**

<b>Revision</b>	<b>Date</b>	<b>Description</b>	<b>EDMS Download Date</b>	<b>Project Configuration Version</b>
<b>0A</b>	11-20-2020	Submitted for Agency Review – TOC		

## **REVISION NARRATIVE**

### **DISCLAIMER**

*This document is a working document. This document may change over time because of new information, or further analysis or deliberation.*



## **1.0 INTRODUCTION**

The Twin Metals Minnesota, LLC (TMM) Project (Project) is focused on designing, permitting, constructing, and operating an underground copper, nickel, cobalt, platinum, palladium, gold, and silver mining project. Located approximately nine miles (14 kilometers [km]) southeast of Ely, Minnesota, and 11 miles (18 km) northeast of Babbitt, Minnesota, the Project targets valuable state, federal, and private minerals within the Maturi deposit, which is a part of the Duluth Complex geologic formation.

All potential Project infrastructure locations presented herein are considered preliminary and are undergoing further design and engineering evaluations which will dictate final design and locations. Further information about TMM and the Project is located at <http://www.twin-metals.com/>.

The purpose of this document is to provide necessary information for the environmental review and permitting process. TMM retained [insert Consultant name] (insert abbreviated Consultant name) to complete [insert text].

## **2.0 SUMMARY**

- Provide a high level summary of what is presented within this report.
- Describe how this report volume relates to the other volumes.
- Will describe the rationale for selecting the area of analysis.
- Will describe the area of analysis.
- Describe the existing conditions of the visual resources that may be affected by the proposed action and alternatives.
- Reference relevant sections of the FSDD, SEAW, and / or federal documents to remind the reader there is a defined scope that is being followed.

## **3.0 PROPOSED ACTION AND ALTERNATIVES**

### **3.1 Proposed Action**

- Reference the TMM Project Description and Alternatives document and indicate the proposed action is defined within this document.

### **3.2 Alternatives to the Proposed Action**

- Reference the TMM Project Description and Alternatives document and indicate the alternatives to the proposed action are defined within this document.

### **3.3 No Action Alternative**

- Reference the TMM Project Description and Alternatives document and indicate the no action alternative is defined within this document.

### **4.0 REGULATORY FRAMEWORK**

- Establish Regulatory Framework by discussing the following:
  - Definition of visual resources
  - Desired scenic resource conditions outlined in the SNF Land and Resource Management Plan (USFS, 2004).
  - Recommendations from the International Dark-Sky Association (IDA, 2019) as a commitment by the proponent.

### **5.0 AFFECTED ENVIRONMENT**

#### **5.1 Area of Analysis**

A discussion will be provided to describe the area of analysis.

- The area of analysis for the proposed action consists of those areas within approximately eight miles of the surface infrastructure, primarily plant site and tailings management site with potential visibility of the proposed Project facilities and lighting.
- Area of analysis will be consistent with the area of potential effect used in the volumes of the *Visual Resources Data Package*.

#### **5.2 Methods**

Methods and data sources for defining the affected environment, encompassing an approximately eight-mile radius from surface infrastructure facilities, will be described in this section and may include the following:

- Line of sight analysis.
- Visual simulations data.
- Drone imagery.
- Superior National Forest Land and Resource Management Plan.
  - Visual Resource Management Class Objectives
  - Scenery Management System – Scenic Integrity Objectives
- BLM Visual Contrast Rating System provided in BLM Manual H-8431; Visual resources contrast rating.
- Existing Viewshed.
  - Predominate land cover within an eight-mile radius.

- Key Observation Points (KOPs) in the area in accordance with the regulatory guidance and the data source: *Wilderness, Recreation, and Tourism Resource Report*
  - Birch Lake
  - BWCAW
  - Highway 1

### **5.3 Existing Conditions**

Using the methods and data sources defined in Section 5.2, existing conditions will be described within this section including the following:

- Pre-mining land cover
  - Existing viewshed openings (commercial logging, mining)
  - Birch Lake
  - BWCAW
  - Active iron mining operations
- KOPs
- State-defined areas of concern for visual resources

### **6.0 REFERENCES**



## **TABLES**



## **FIGURES**



## **APPENDICES**



**APPENDIX [#A, B, C, D]**

**[APPENDIX TITLE]**



## **APPENDIX [#A, B, C, D]**

### **[APPENDIX TITLE]**

*[Insert page break for each additional appendix.]*