



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT  
332 MINNESOTA STREET, SUITE E1500  
ST. PAUL, MN 55101-1678

MVP-2005-00546

May 9, 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" (8 September 2023),<sup>1</sup> MVP-2005-00546-RHW MFR 1 of 1<sup>2</sup>.

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.<sup>3</sup> AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.<sup>4</sup>

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule"). On September 8, 2023, the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),<sup>5</sup> the 2023 Rule as amended,

---

<sup>1</sup> While the Revised Definition of "Waters of the United States"; Conforming had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

<sup>2</sup> When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, the territorial seas, or interstate water that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

<sup>3</sup> 33 CFR 331.2.

<sup>4</sup> Regulatory Guidance Letter 05-02.

<sup>5</sup> USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

## 1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).
- i. The project site is a historical taconite mining area with an existing DA permit to discharge dredged/fill material into 765 acres of wetlands. The applicant proposes minor changes in mining area locations, within the previously studied overall project footprint. Additionally, the applicant proposes to design storm water management that would manage a zero discharge facility that would include the construction of ponds, ditches, pipes and pumps that would unavoidably impact wetlands. There are many wetland areas within the proposed amendment to mine area that are non-jurisdictional due to their hydrologic isolation and lack of a continuous surface connection in accordance with the joint Corps/EPA memo dated March 12, 2025. This AJD specifically address several wetland areas that are outside of the existing DA permit footprint and were previously inadvertently filled and reported to the Corps. The conclusions in this MFR are based on a desktop analysis and field delineation reports from 2016 and 2024. The individual wetland polygons range in size and are identified in the applicant provided Table 1 and Figures 1a-1m below. The wetlands are non-jurisdictional as they do not meet the definition of waters of the U.S. under (a)(1-5). Specifically, under (a)(4), the wetlands are isolated by natural upland elevational features and do not have a continuous surface water hydrological connection to waters (a)(1-3). Based on desktop and previous field verified ground truthing, no continuous hydrological surface connections with relatively permanent waters of the U.S. could be established.

**Table 1. Non-Jurisdictional Wetlands that were previously filled and outside the permitted footprint.**

<b>Wetland ID (as noted on Figure 1) and Latitude/Longitude</b>	<b>Type of Impact (fill, excavate, drain, or remove vegetation)</b>	<b>Duration of Impact Permanent (P) or Temporary (T)</b>	<b>Size of Impact (ac.)</b>	<b>Overall Size of Aquatic Resource</b>	<b>Existing Plant Community Type(s) in Impact Area</b>	<b>Jurisdictional Analysis</b>
---	---	--	-----------------------------	---	--	--------------------------------

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

493 47.361704, -93.218462	Fill	P	0.75	15.85	Shallow marsh	Mapped as PUBKx on NWI. Appears isolated based on 2-ft. LiDAR contours with no inlets/outlets. <b>This wetland is not jurisdictional.</b>
541 47.358152, -93.214661	Fill	P	0.23	0.23	Shrub carr	Not mapped on NWI. Wetland is in a shallow depression and appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
566 47.353928, -93.205292	Fill	P	0.79	1.07	Shallow open water	Not mapped on NWI. Wetland appears to be of artificial origin as a result of past mining activities. Wetland is in a shallow depression and appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
571	Fill	P	0.20	0.51	Shallow open water	Not mapped on NWI. Wetland appears to be

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

47.353756, -93.207104						of artificial origin as a result of past mining activities. Wetland is in a shallow depression and appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
576  47.353046, -93.204791	Fill	P	0.41	0.61	Shallow open water	Not mapped on NWI. Wetland appears to be of artificial origin as a result of past mining activities. Wetland is in a shallow depression and appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
667  47.346254, -93.189078	Fill	P	0.01	0.95	Shallow marsh	Not mapped on NWI. May have been an historic connection to Wetland 664 (jurisdictional) but a road separates the two wetlands. Mesabi staff confirmed no surface

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

						wetland connection/no culvert between 667 and 664 on 5/7/25. <b>This wetland is not jurisdictional.</b>
748  47.342139, -93.151974	Fill	P	0.03	0.08	Shrub-carr	NWI maps the wetland and significant area beyond as L2UBKx. The wetland is inside the Tailings Basin and is thus isolated. <b>This wetland is not jurisdictional.</b>
773  47.339646, -93.175317	Fill	P	1.36	4.48	Shallow open water	Portions of wetland mapped as PUBFx on NWI. Connected with Wetland 761 but aerial photos on Google Earth do not indicate continuous surface connection to other wetlands/waters via channel/culvert downgradient from wetland 773. Tailings Basin berm is present along east and north sides. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
781  47.340093, -93.182456	Fill	P	0.08	6.76	Hardwood swamp	Portions of wetland mapped as PEM1C on NWI. Aerial photos on Google Earth may indicate a connection to wetland 2047 via culvert; however,

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

						imagery does not indicate continuous surface connection to Swan Lake. Review of 2014 LiDAR contours do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
823  47.334133, -93.156113	Fill	P	0.76	1.80	Hardwood swamp	Portions of wetland mapped as PUBFx on NWI. Aerial photos on Google Earth and previous wetland delineations indicate a continuous surface connection to Wetland 831. Tributary outlet from Wetland 831 to Little O'Brien Lake appears to be ephemeral to intermittent. <b>This wetland is not jurisdictional.</b>
831  47.33315, -93.157544	Fill	P	0.02	6.21	Deep marsh, shallow marsh, fresh wet meadow	NWI maps the wetland as various types including the "x" modifier indicating excavated. Tributary outlet from Wetland 831 to Little O'Brien Lake appears to be ephemeral to intermittent. <b>This wetland is not jurisdictional.</b>
855	Fill	P	0.67	3.67	Shrub carr	Portions of wetland mapped as PSS1D on

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

47.328, -93.164557						NWI. Wetland appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours and wetland impacts do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
1062  47.329287, -93.167119	Fill	P	0.48	0.70	Shallow marsh, hardwood swamp	NWI maps PUBF <sub>x</sub> in the vicinity of this wetland. Wetland appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours and wetland impacts do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
2007  47.384438, -93.222493	Fill	P	0.21	0.21	Fresh wet meadow	An intermittent stream (R4SBC) is mapped through the wetland on NWI and NHD, but the wetland is not identified on NWI. The channel which connects to Little McCarthy Lake is visible on Google Earth imagery to the northwest of the wetland, but appears to

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

						be ephemeral, possibly intermittent but not perennial. <b>This wetland is not jurisdictional.</b>
2035  47.342339, -93.18534	Fill	P	0.05	2.42	Hardwood swamp	Not mapped on NWI. No direct observable surface connection to jurisdictional wetlands visible on Google Earth imagery. Only potential connections are to other nearby wetlands that are surrounded on all sides by Tailings Basin berms and roads. NHD shows no surface connections to/from the wetland or nearby wetlands. <b>This wetland is not jurisdictional.</b>
2036  47.34064, -93.185777	Fill	P	0.01	1.70	Shrub carr	Portion of wetland mapped as PSS1/2A on NWI. No direct observable surface connection to jurisdictional wetlands visible on Google Earth imagery. Connected with other nearby wetlands that are surrounded on all sides by Tailings Basin berms and roads. NHD shows no surface connections to/from the wetland or nearby wetlands. <b>This wetland is not jurisdictional.</b>

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of  
*Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

2041  47.338468, -93.181013	Fill	P	0.01	1.31	Hardwood swamp	Not mapped on NWI. Wetland appears isolated with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours and wetland impacts do not indicate a continuous surface connection via channel to other jurisdictional wetlands. Connected directly to Wetland 2049 which has already been determined by the Corps to be non-jurisdictional. <b>This wetland is not jurisdictional.</b>
2043  47.34154, -93.187117	Fill	P	0.05	4.35	Hardwood swamp	Portions of wetland mapped as PSS1/2A on NWI. No direct observable surface connection to jurisdictional wetlands visible on Google Earth imagery. Surrounded on all sides by Tailings Basin berms and roads. NHD shows no surface connections to/from the wetland or nearby wetlands. <b>This wetland is not jurisdictional.</b>
2044  47.357761, -93.213262	Fill	P	0.02	0.51	Sedge meadow	Not mapped on NWI. Wetland appears to be an isolated ditch at the side of the road with no continuous surface connection on Google

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

						Earth imagery. Review of 2014 LiDAR contours and wetland impacts do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
2045  47.351189, -93.194944	Fill	P	0.04	0.20	Seasonally flooded basin	Not mapped on NWI. Wetland appears to be an isolated ditch with no continuous surface connection on Google Earth imagery. Review of 2014 LiDAR contours and wetland impacts do not indicate a continuous surface connection via channel to other jurisdictional wetlands. <b>This wetland is not jurisdictional.</b>
2344-2024  47.341174, -93.229627  (735)	Fill	P	0.09	5.88		A small portion of the northern part of the wetland is mapped on the NWI as PSS1D. No apparent connection to Wetland 791/Snowball Lake/Snowball Creek due to an upland separation as well as a road between 2344-2024 and 791. Wetland appears to be isolated with no continuous surface connection on Google Earth imagery. <b>This wetland is not jurisdictional.</b>

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

<b>Total</b>			<b>6.27</b>	<b>59.50</b>		
--------------	--	--	-------------	--------------	--	--

In total there were 6.27 acres of non-jurisdictional wetlands that were previously filled and outside of the permitted mine site footprint. The wetlands do not have a continuous surface connection to a relatively permanent water and do not meet the definition of a water of the U.S. Therefore, no enforcement resolution (e.g., restoration or after-the-fact permitting) is necessary or appropriate.

## 2. REFERENCES.

- a. "Revised Definition of 'Waters of the United States,'" 88 FR 3004 (January 18, 2023) ("2023 Rule")
  - b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 61964 (September 8, 2023))
  - c. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023)
  - d. January 2023 Rule preamble at 88 FR 3090
  - e. Memorandum to the Field Between the U.S. Department of the Army, U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency Concerning the Proper Implementation of "Continuous Surface Connection" Under the Definition of "Waters of The United States" Under the Clean Water Act (March 12, 2025)
3. REVIEW AREA. The project area involves wetlands outside and within the proposed amendment to mine boundaries, as identified in Table 1 and Figures 1a – 1m, for the Mesabi Mine Project located in Itasca County, MN. Lat/Lon center points for each wetland polygon are provided in Table 1 and a separate KMZ file.
  4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. N/A
  5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER. N/A

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

6. SECTION 10 JURISDICTIONAL WATERS<sup>6</sup>: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.<sup>7</sup> N/A
7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the 2023 Rule as amended, consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the 2023 Rule as amended. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.
  - a. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A
  - b. The Territorial Seas (a)(1)(ii): N/A
  - c. Interstate Waters (a)(1)(iii): N/A
  - d. Impoundments (a)(2): N/A
  - e. Tributaries (a)(3): N/A
  - f. Adjacent Wetlands (a)(4): N/A
  - g. Additional Waters (a)(5): N/A

## 8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

---

<sup>6</sup> 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

<sup>7</sup> This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

MVP

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

- a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).<sup>8</sup> N/A
- b. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Because the Supreme Court in *Sackett* adopted the *Rapanos* plurality standard and the 2023 rule preamble discussed the *Rapanos* plurality standard, the implementation guidance and tools in the 2023 rule preamble that address the regulatory text that was not amended by the conforming rule, including the preamble relevant to the *Rapanos* plurality standard incorporated in paragraphs (a)(3), (4), and (5) of the 2023 rule, as amended, generally remain relevant to implementing the 2023 rule, as amended.

The wetlands identified in Table 1 and depicted in Figures 1a-k are not a TNW, territorial sea, or interstate water and are therefore not an (a)(1) water.

The wetland areas identified in Table 1 and depicted in Figures 1 a-m were evaluated as a potential (a)(4) waters but do not have a continuous surface connection to a jurisdictional water.

Desktop resources (NWI, Contour Maps, Google Earth, Soil Surveys, etc. – See AJD request and Wetland Delineation Reports) do not indicate a continuous surface connection to another aquatic resource on site. There is no evidence from online resources or the field reports that would support a continuous surface water connection to jurisdictional waters. Therefore, the wetlands do not meet the definition of adjacent and are not (a)(4) adjacent wetlands. The wetlands are not jurisdictional under the 2023 “Revised Definition of ‘Waters of the United States’; Conforming” 88 FR 61964 Final Rule.

---

<sup>8</sup> 88 FR 3004 (January 18, 2023)

MVP

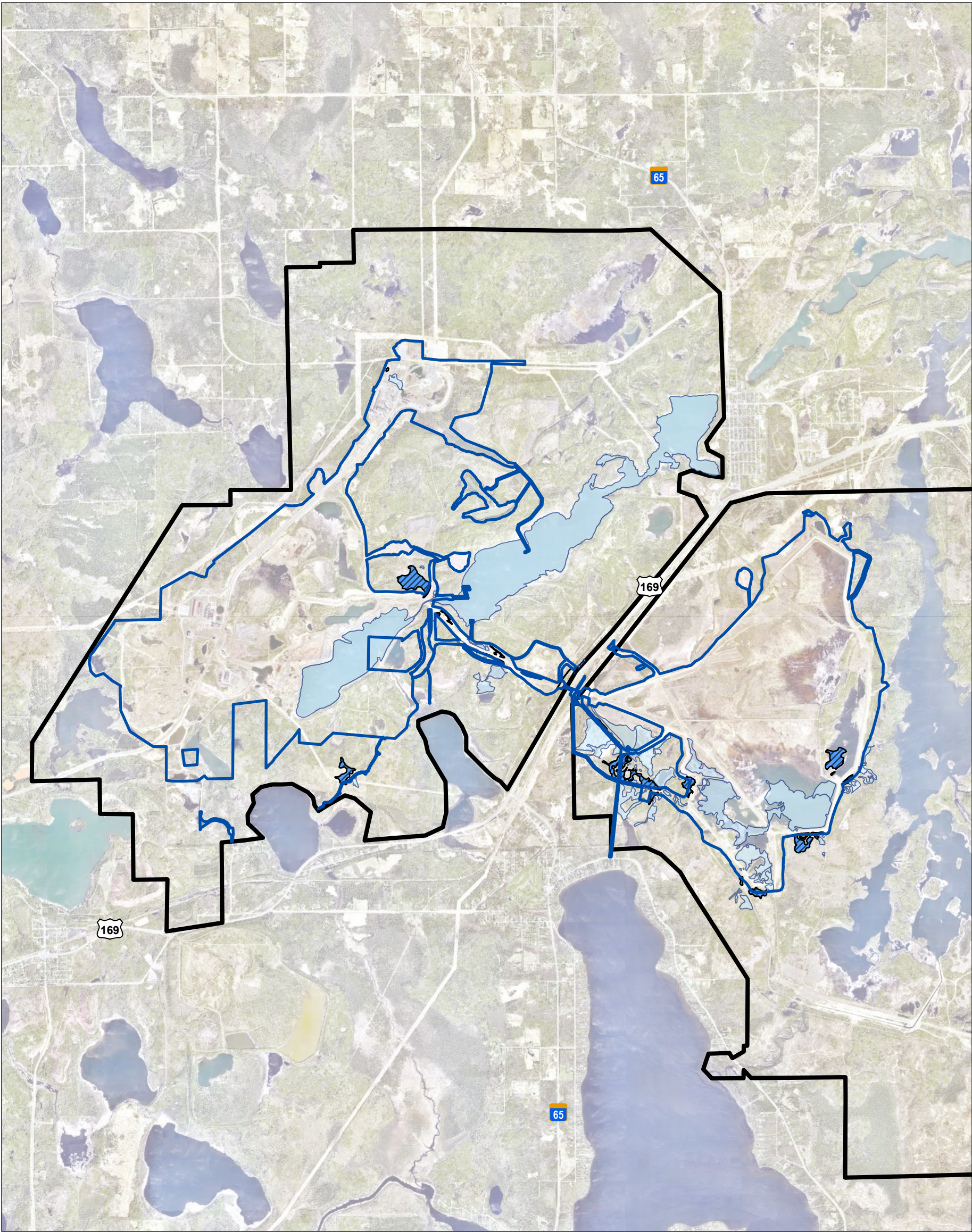
SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVP-2005-00546-RHW

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

- a. Office evaluation completed in April 2025
- b. United States Fish and Wildlife Service, National Wetland Inventory
- c. United States Geological Survey (USGS), National Hydrography Dataset
- d. Minnesota Department of Natural Resources, lidar data (2-foot contours)
- e. Mesabi Metallics Wetland Delineation Reports dated 2006, 2016 and 2024; and Approved Jurisdictional Determination Memo dated May 2025.
- f. Google Earth KMZ files.

10. OTHER SUPPORTING INFORMATION. N/A

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 2,000 4,000 Feet  
(At original document size of 11x17)  
1:48,000



**Project Location**  
Penguin, Itasca Co., MN

Prepared by BS on 2025-05-09

**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1a**

**Title**  
**Non-Jurisdictional Wetland Impacts - Overall**

MVP-2005-00546  
Sheet 1 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



Project Location  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

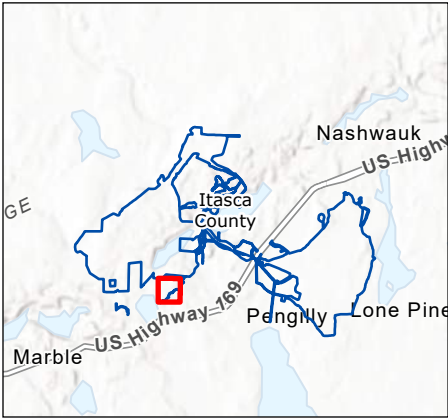
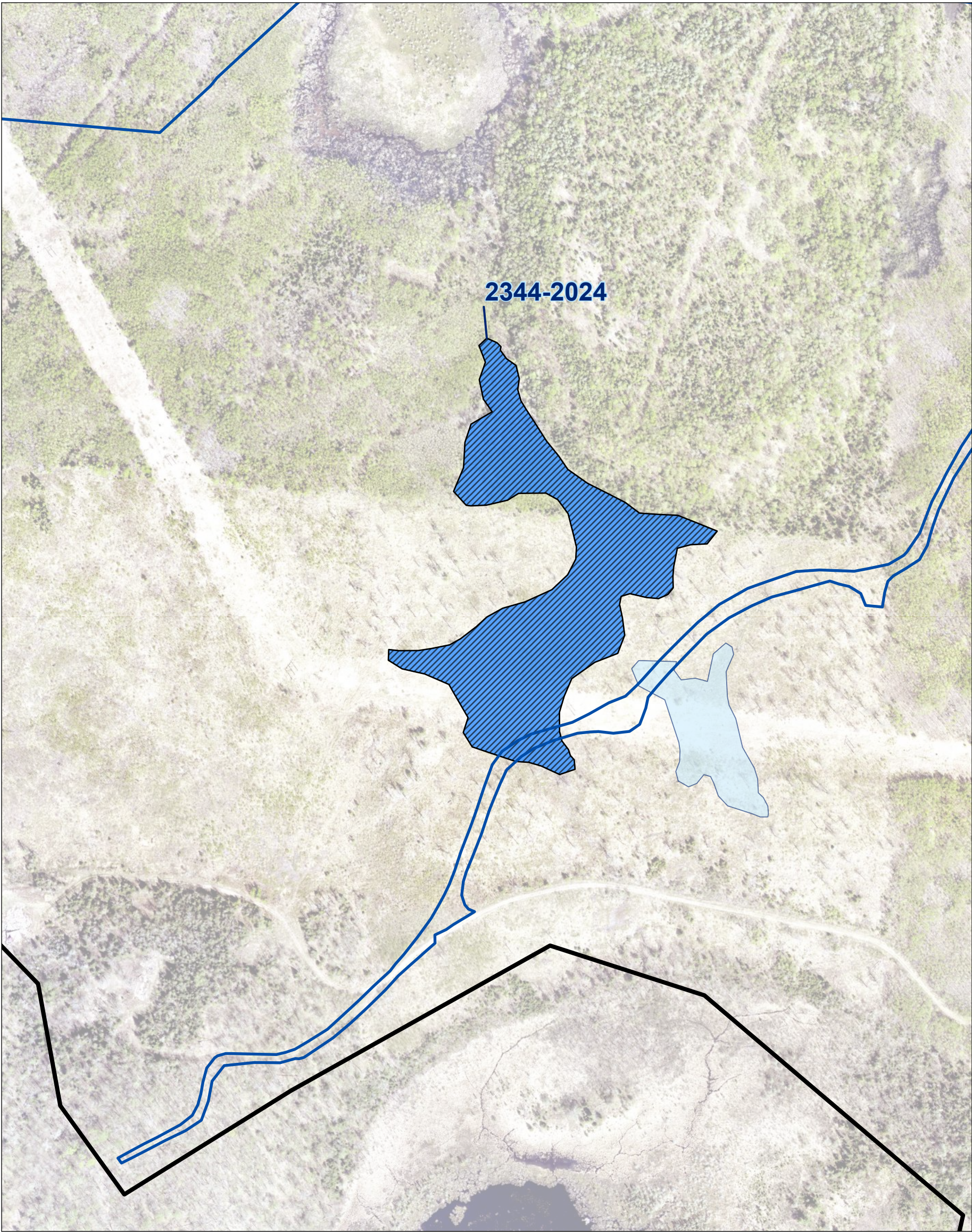
Client/Project  
Mesabi

227706616

Figure No.  
**1b**

Title  
**Non-Jurisdictional Wetland Impacts - Plant Area**

MVP-2005-00546  
Sheet 2 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

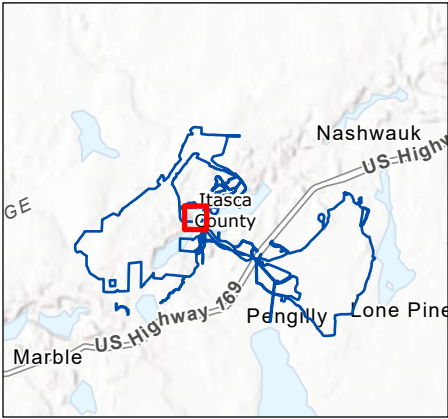
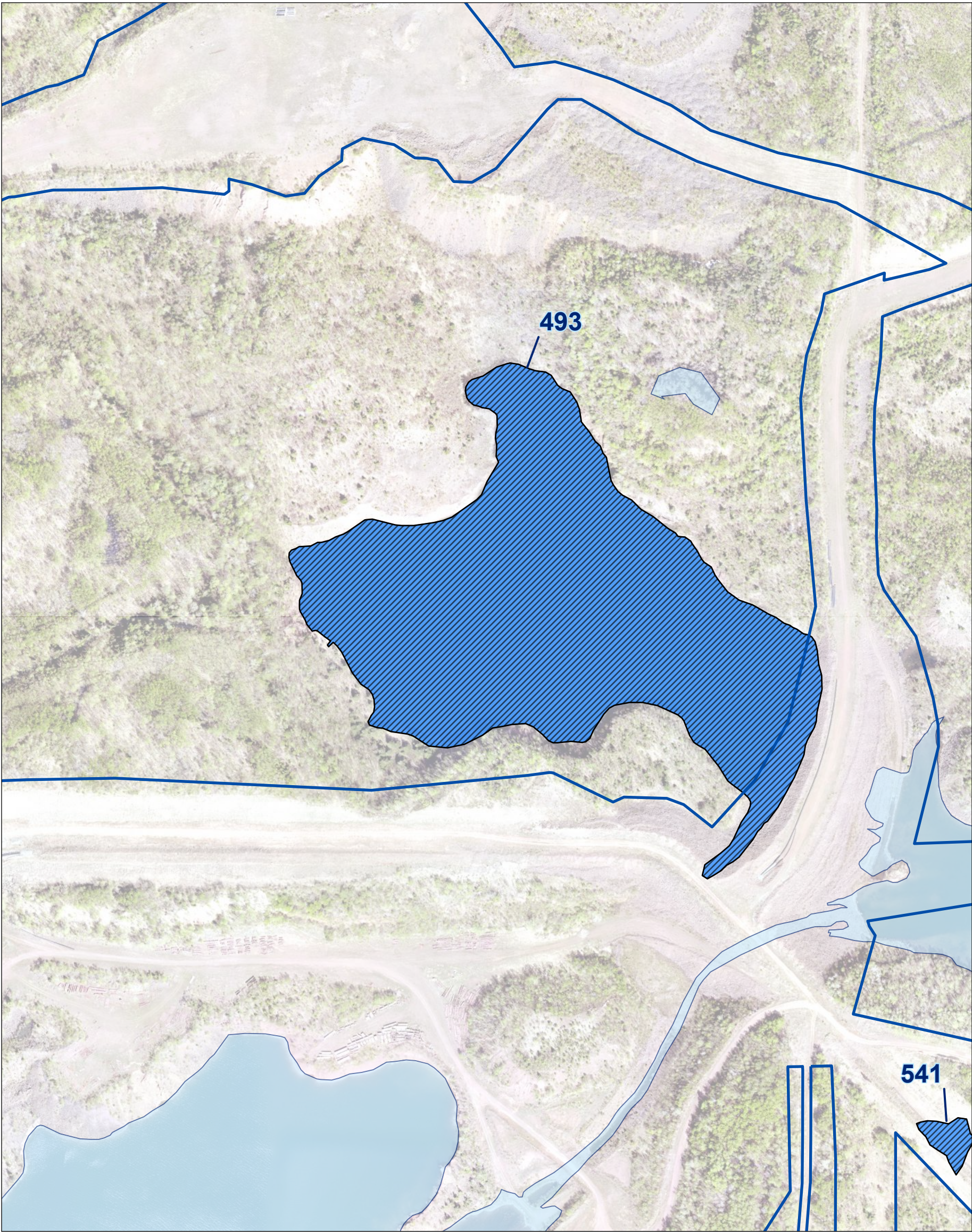
**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1c**

**Title**  
**Non-Jurisdictional Wetland Impacts - Mine Expansion Area**

MVP-2005-00546  
Sheet 3 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Pongilly, Itasca Co., MN

Prepared by BS on 2025-05-09

**Client/Project**  
Mesabi

227706616

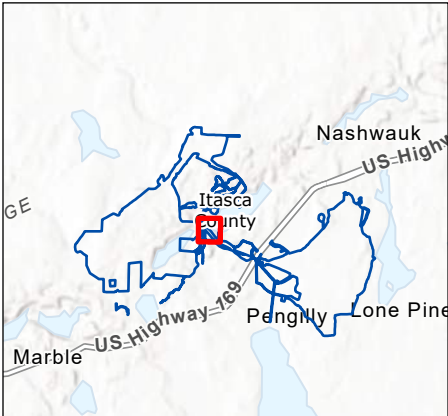
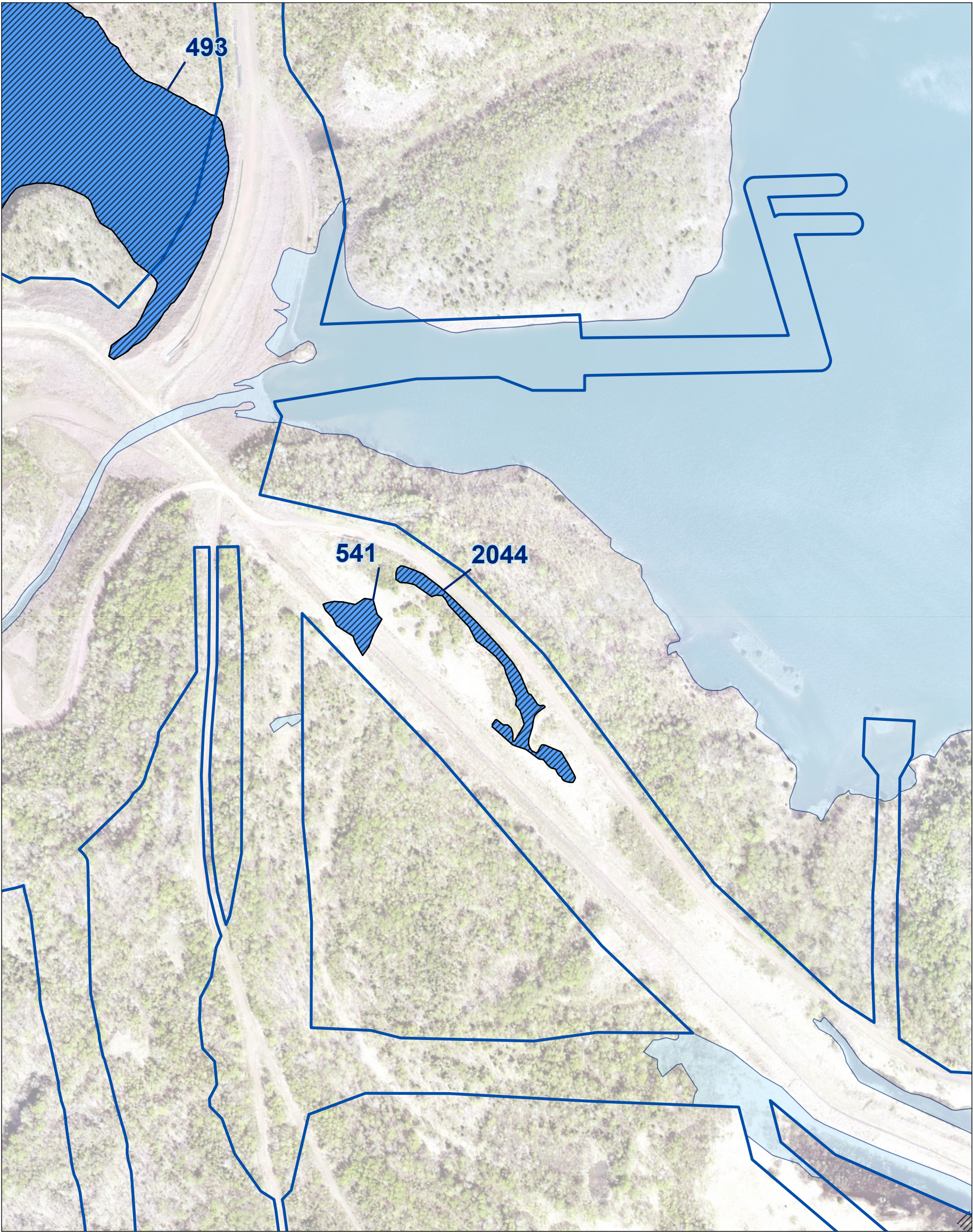
**Figure No.**

**1d**

**Title**

**Non-Jurisdictional Wetland Impacts - Mine Expansion Area**

MVP-2005-00546  
Sheet 4 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



Project Location  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

Client/Project  
Mesabi

227706616

Figure No.

**1e**

Title

**Non-Jurisdictional Wetland Impacts - Mine Expansion Area**

MVP-2005-00546  
Sheet 5 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

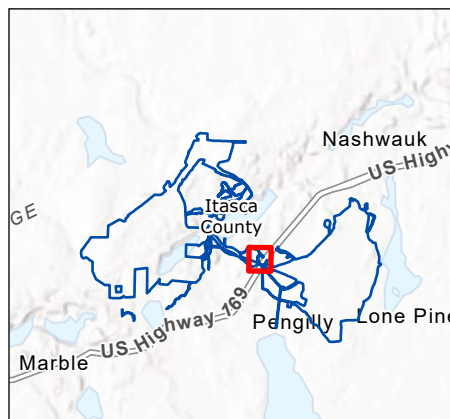
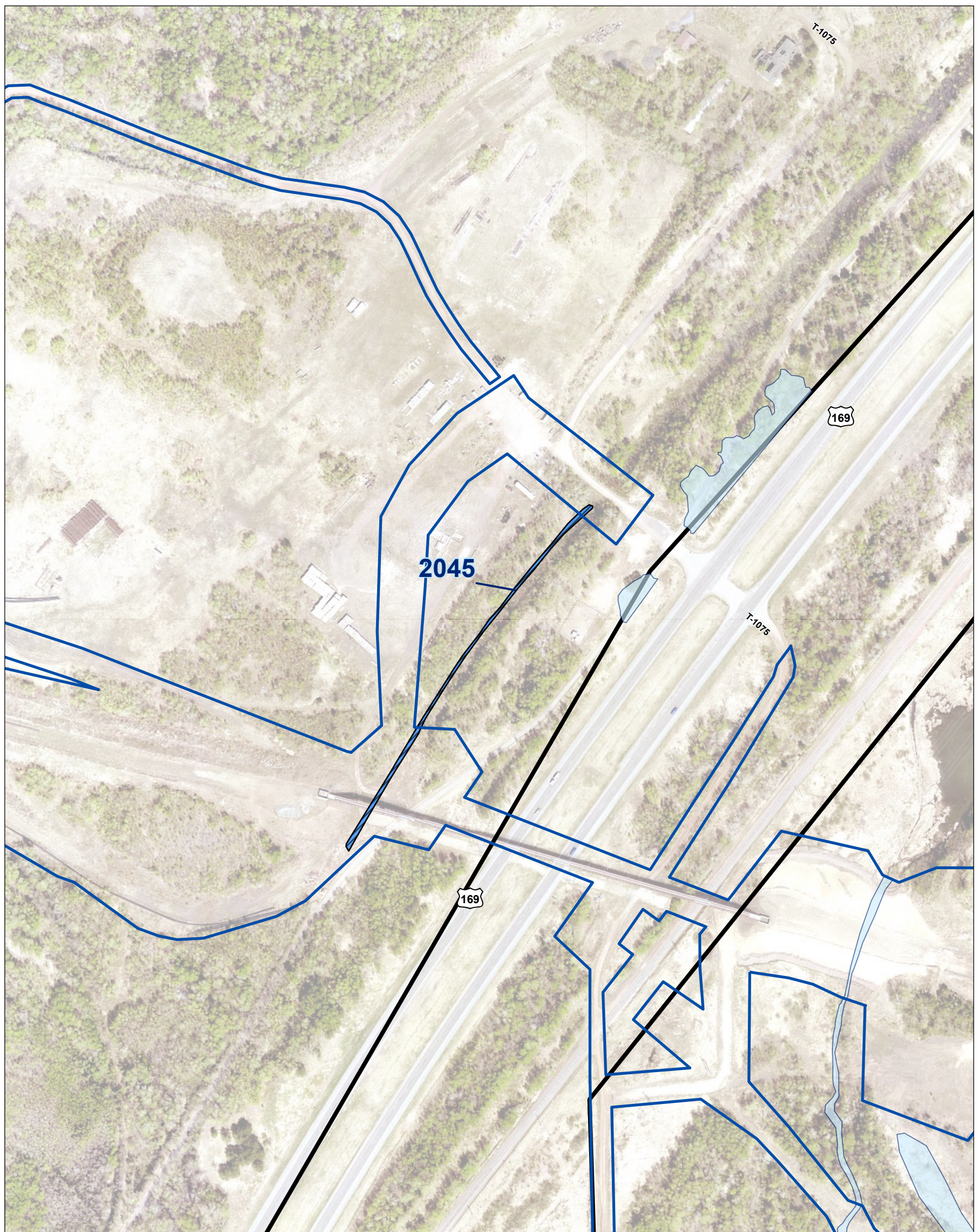
**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1f**

**Title**  
**Non-Jurisdictional Wetland Impacts -  
Tailings Pipeline Area**





MVP-2005-00546  
Sheet 6 of 13  
9 May 2025

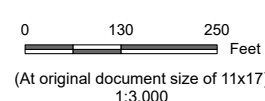


**Notes**

1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet
2. Data Sources: Itasca County
3. Background: Itasca County 2023 Imagery

Legend

-  Project Boundary (2007 EIS/2011 SEIS)
-  Proposed Amended Permit To Mine Boundary
-  Proposed Non-Jurisdictional Impacted Wetlands
-  Adjacent Wetlands



**Project Location**  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

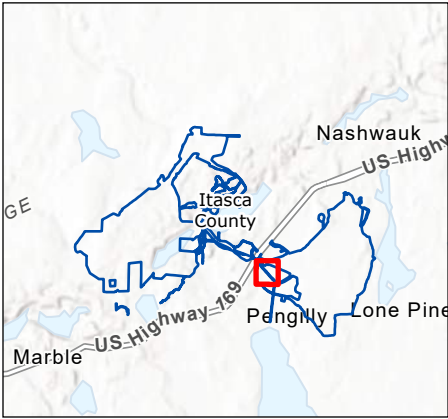
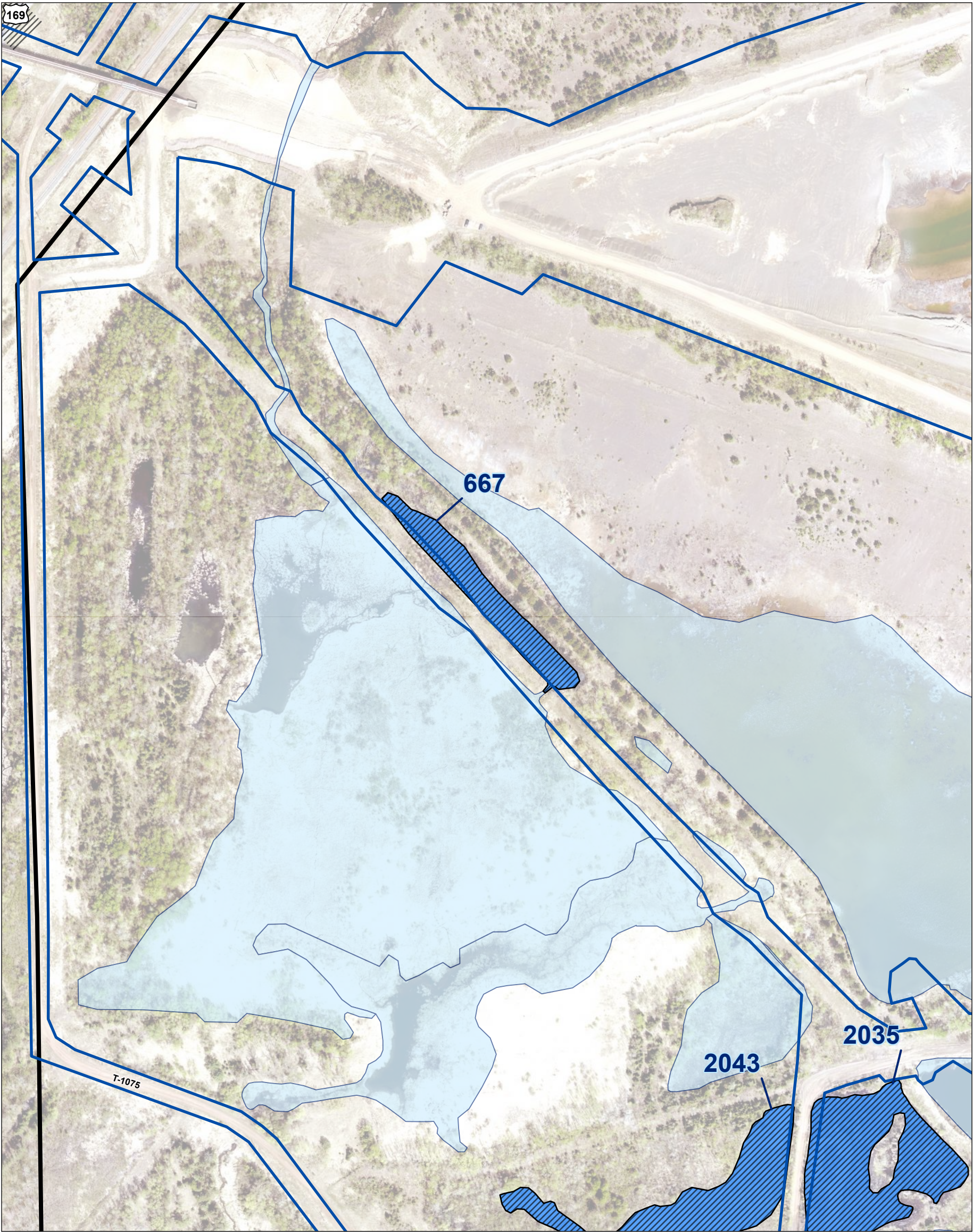
Client/Project  
Mesabi

227706616

Figure No.  
**1g**  
Title

### Non-Jurisdictional Wetland Impacts - Stormwater/Seepage Collection Area

MVP-2005-00546  
Sheet 7 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

**Client/Project**  
Mesabi

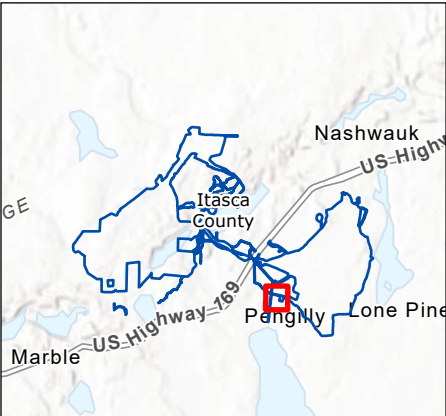
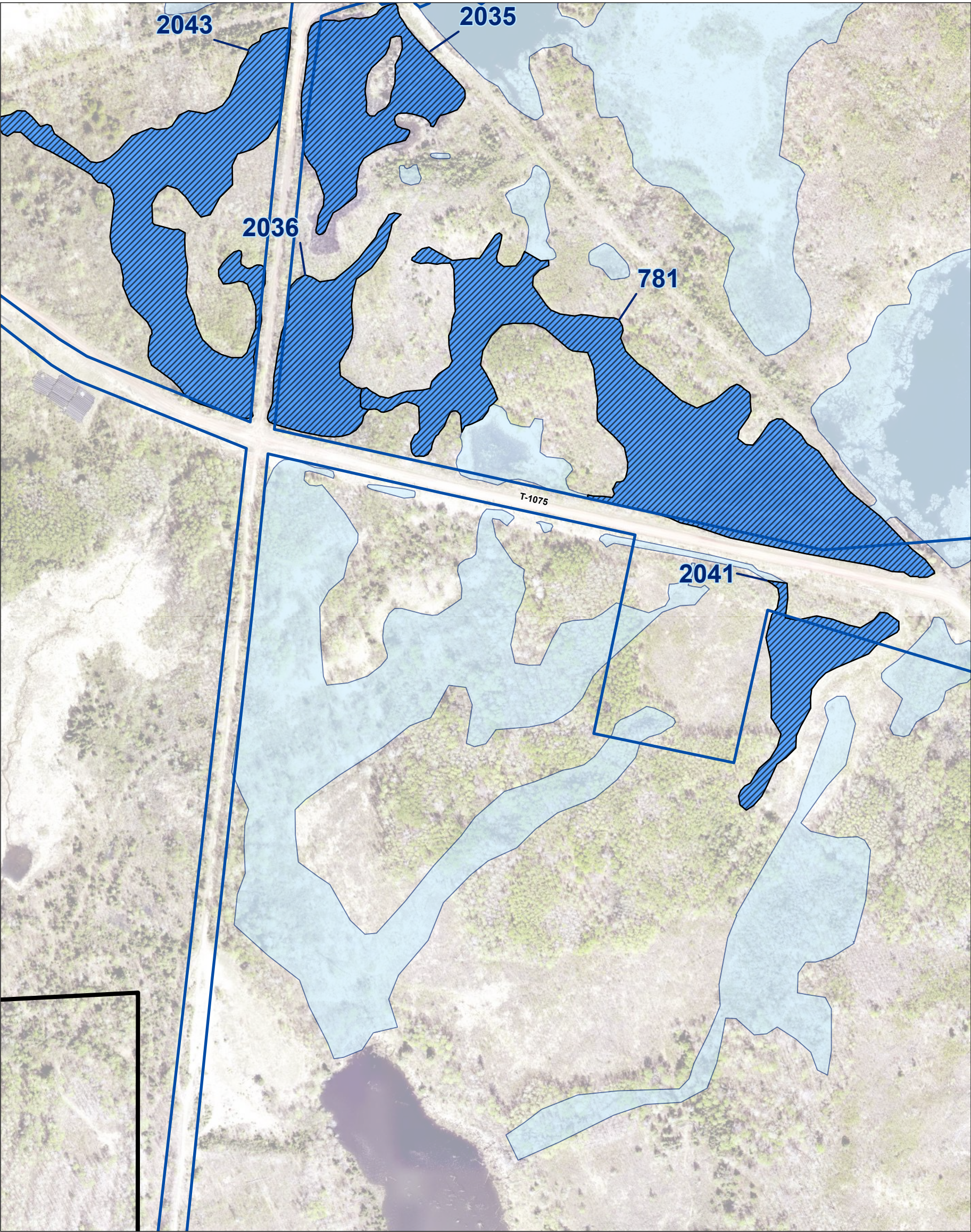
227706616

**Figure No.**

**1h**

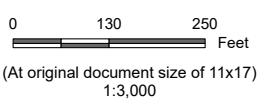
**Title**  
**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 8 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands



**Project Location**  
Pengilly, Itasca Co., MN

Prepared by BS on 2025-05-09

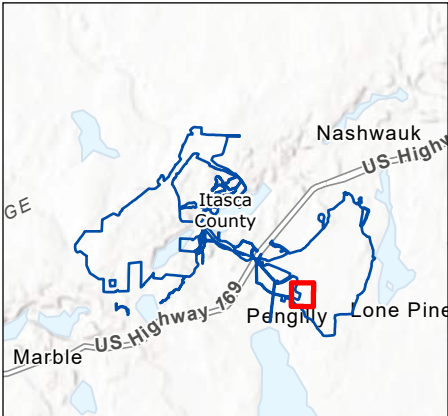
**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1i**

**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 9 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 200 400 Feet  
(At original document size of 11x17)  
1:4,800



**Project Location**  
Penguin, Itasca Co., MN

Prepared by BS on 2025-05-09

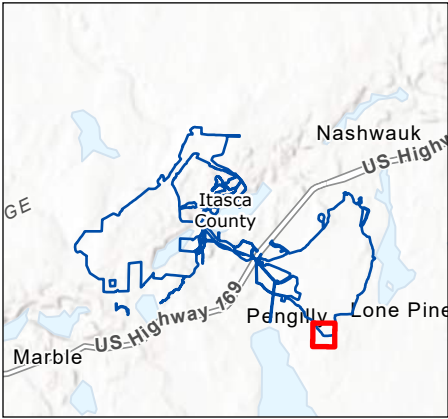
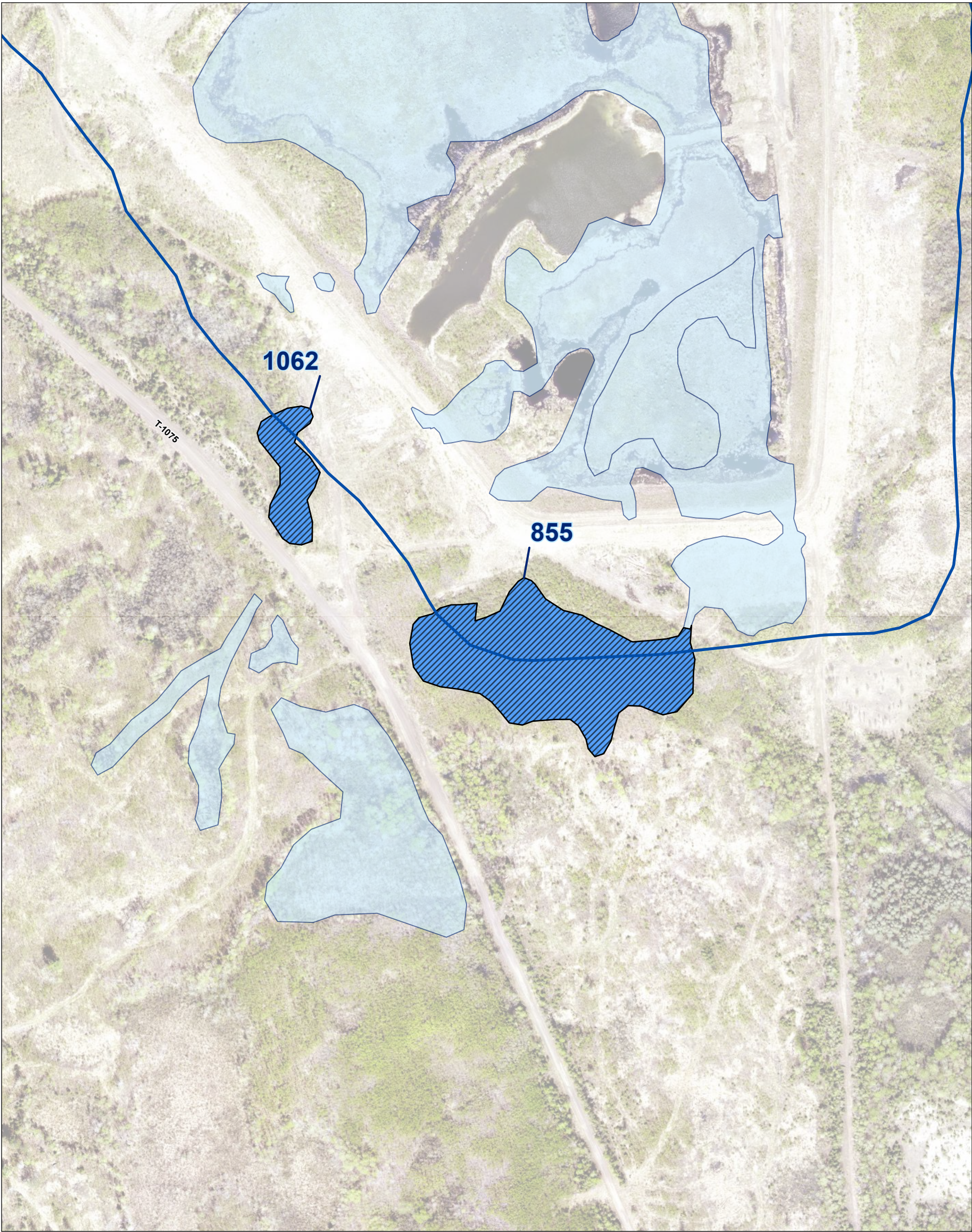
**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1j**  
**Title**

**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 10 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Penguin, Itasca Co., MN

Prepared by BS on 2025-05-09

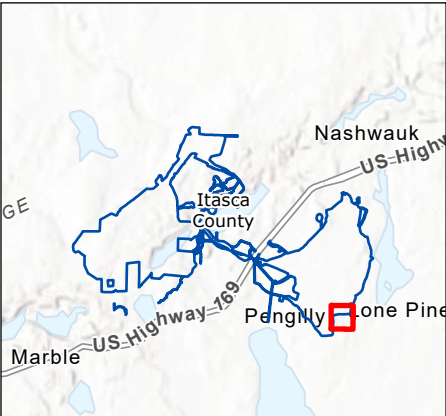
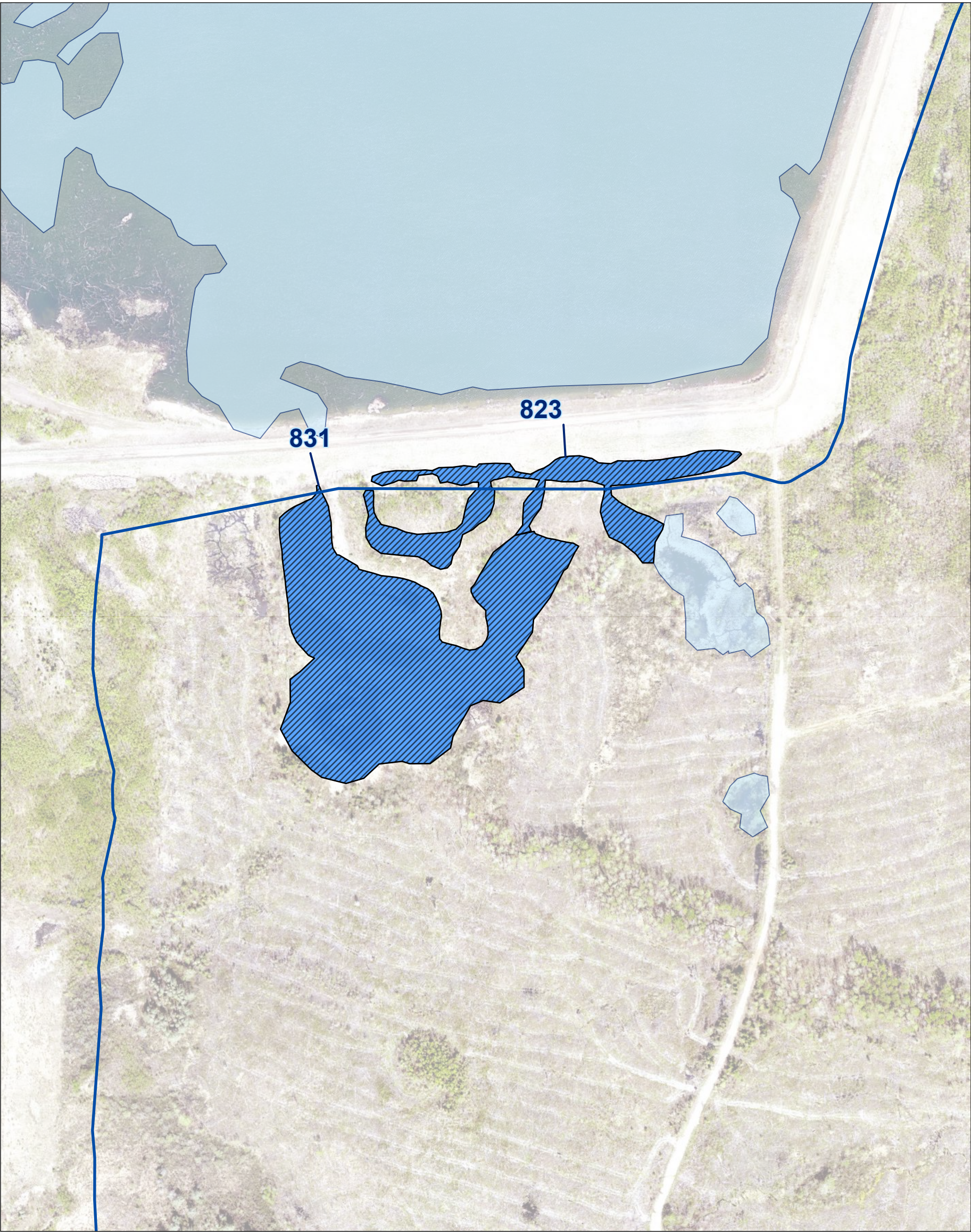
**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1k**

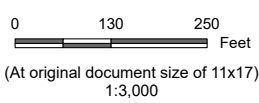
**Title**  
**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 11 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands



**Project Location**  
Pongilly, Itasca Co., MN

Prepared by BS on 2025-05-09

**Client/Project**  
Mesabi

227706616

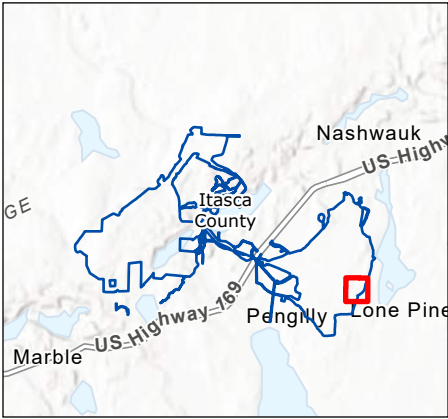
**Figure No.**

**11**

**Title**

**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 12 of 13  
9 May 2025



**Notes**  
1. Coordinate System: NAD 1983 HARN Adj MN Itasca South Feet  
2. Data Sources: Itasca County  
3. Background: Itasca County 2023 Imagery

- Legend**
- Project Boundary (2007 EIS/2011 SEIS)
  - Proposed Amended Permit To Mine Boundary
  - Proposed Non-Jurisdictional Impacted Wetlands
  - Adjacent Wetlands

0 130 250 Feet  
(At original document size of 11x17)  
1:3,000



**Project Location**  
Pongilly, Itasca Co., MN

Prepared by BS on 2025-05-09

**Client/Project**  
Mesabi

227706616

**Figure No.**  
**1m**

**Title**  
**Non-Jurisdictional Wetland Impacts -  
Stormwater/Seepage Collection Area**

MVP-2005-00546  
Sheet 13 of 13  
9 May 2025