

Enclosure E to D.A. Permit MVP 1999-5528-JKA

**The NorthMet Mining Project National Historic Preservation Act
Memorandum of Agreement**

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLY MET MINING, INC
AND THE
MINNESOTA HISTORIC PRESERVATION OFFICE
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

WHEREAS, Poly Met Mining, Inc. (PolyMet) is proposing to develop a copper-nickel-platinum group elements mine and associated processing facilities (the NorthMet Project or Project). The Project is located in multiple sections of (T 59 N, R 13 W), (T 59 N, R 14 W) and (T 60 N, R 13 W) in St. Louis County, Minnesota; and

WHEREAS, the United States Forest Service, Superior National Forest (SNF) is evaluating approval of an exchange of approximately 6,650.2 acres of public lands in St. Louis County Minnesota (Attachment 1) under the jurisdiction of SNF for up to 6,690.4 acres of non-federal lands in St. Louis, Lake, and Cook Counties, Minnesota, held by PolyMet under the provisions of the Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1716); and

WHEREAS, PolyMet will incorporate the 6,650.2 acres of lands transferred from SNF as part of the proposed mine and associated processing facilities, and SNF will manage the up to 6,690.4 acres of lands from PolyMet as part of the National Forest and consider the effects of future undertakings in this area on historic properties in accordance with the *Programmatic Agreement Among The United States Department of Agriculture, Forest Service Superior National Forest; The Minnesota State Historic Preservation Officer; The Bois Forte Band of Chippewa; The Grand Portage Band of Lake Superior Chippewa And The Fond Du Lac Band of Lake Superior Chippewa* executed [September, 2015]; and

WHEREAS, the United States Army Corps of Engineers, St. Paul District (USACE) is evaluating a permit application requesting authorization under Section 404 of the Clean Water Act (33 U.S.C. § 1344) to discharge dredged, or fill, material into approximately 914 acres of waters of the United States; and

WHEREAS, given the extent of these two federal actions in connection with the Project, the SNF and the USACE have determined that the Project is an Undertaking subject to review pursuant to Section 106 of the National Historic Preservation Act (Title 54, U.S.C. §306108) (NHPA) with the USACE and SNF acting as joint lead federal agencies; and

WHEREAS, the Undertaking consists of the Project's mine site, plant site, and a transportation and utility corridor; and

WHEREAS, the SNF and the USACE, in consultation with the Minnesota Historic Preservation Office (MnHPO), have defined the Undertaking's area of potential effects (APE) as shown in Attachment 2,

which includes all areas of potential direct effects as well as areas of potential indirect effects that may be caused by the Undertaking as proposed at the time of execution of this agreement; and

WHEREAS, USACE initially invited the Bad River Band of the Lake Superior Chippewa; the Red Cliff Band of Lake Superior Chippewa; the Red Lake Band of Chippewa Indians; the Sokaogon Chippewa Community; the St. Croix Chippewa Indians of Wisconsin; the White Earth Band of Ojibwe; the Mille Lacs Band of Ojibwe; the Leech Lake Band of Ojibwe; the Lac Vieux Desert Band of Lake Superior Chippewa; the Lac du Flambeau Band of Lake Superior Chippewa; the Lac Courte Oreilles Band of Lake Superior Chippewa; the Keweenaw Bay Indian Community; the Grand Portage Band of Lake Superior Chippewa; the Fond du Lac Band of Lake Superior Chippewa; and the Bois Forte Band Minnesota Chippewa tribes to participate in development of the Environmental Impact Statement specifically for the information they could provide concerning properties of traditional religious and cultural importance, and the Bois Forte Band of Chippewa, the Fond du Lac Band of Lake Superior Chippewa, and Grand Portage Band of Lake Superior Chippewa (Consulting Bands) participated in the consultation with SNF and USACE pursuant to 36 CFR § 800.2 (c)(2)(ii) and were invited to concur with this Memorandum of Agreement (MOA); and

WHEREAS, under 36 CFR § 800.4(b), the SNF and USACE, in consultation with the MnHPO and the Consulting Bands, have identified and evaluated historic properties within the APE (as listed in Attachment 3) through historical research, field survey, and oral interviews with Consulting Bands, but will continue identification and evaluation efforts as stipulated in this MOA; and

WHEREAS, the SNF and the USACE, in consultation with the MnHPO, have determined that the Erie Mining Company Mining Landscape Historic District (Historic District) is eligible for inclusion in the National Register of Historic Places (NRHP) and the portion of the Historic District that lies within the APE for the Undertaking includes contributing, non-contributing, and individually eligible historic properties as described in Attachment 3 of this agreement; and

WHEREAS, the SNF and the USACE, in consultation with the MnHPO and the Consulting Bands, have also determined that the Spring Mine Lake Sugarbush, the Beaver Bay to Lake Vermillion Trail: Partridge River Segment, and the *Mesabe Widjiu*: Partridge River Section are eligible for inclusion in the NRHP; and

WHEREAS, the SNF and the USACE, in consultation with the MnHPO and the Consulting Bands, have determined that the Undertaking may have an adverse effect on the Erie Mining Company Mining Landscape Historic District, the Spring Mine Lake Sugarbush, the Beaver Bay to Lake Vermillion Trail: Partridge River Segment, and the *Mesabe Widjiu*: Partridge River Section (Attachment 3); and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the SNF and USACE have notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect determination for the Undertaking, and provided the specified documentation, and the ACHP has chosen to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, the SNF and the USACE have consulted with PolyMet during the resolution of adverse effect and have invited the company to sign this MOA as an invited signatory because of its obligation to implement avoidance, minimization, and mitigation measures stipulated in this MOA; and

WHEREAS, the SNF and the USACE have involved the public, adjacent property owners, and other interested parties early in the Federal decision-making process through the agencies' existing procedures and through the National Environmental Policy Act (NEPA) process, which included additional public notices, public meetings, and opportunities to comment on the EIS; and through dissemination of information on the Project and its potential effects on historic properties that included opportunities to comment on identification and evaluation of properties as well as resolution of adverse effects on historic properties; the SNF and USACE have determined this to be consistent with 36 CFR § 800.2(d); and

WHEREAS, the SNF and the USACE have, at the request of the Consulting Bands pursuant to 36 CFR § 800.6(a)(5), limited public disclosure of information concerning historic properties of traditional religious and cultural significance to them;

NOW THEREFORE, the SNF, the USACE, MnHPO, PolyMet, and the ACHP agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

The SNF and the USACE shall ensure that the following measures are carried out:

I. Erie Mining Company Mining Landscape Historic District

A. Completion of Phase II Intensive Level Survey and Report for Historic District Properties within the APE.

1. Within one (1) year after the exchange of lands between SNF and PolyMet has been completed and USACE has issued a final Section 404 permit that is actionable (that is, all necessary authorizations to enable PolyMet to act pursuant to the permit have been received), PolyMet shall complete a Phase II Intensive Level Survey (Phase II Survey), which will include a historic property evaluation of the portion of the Erie Mining Company Mining Landscape Historic District (Historic District) that lies within the APE.
2. This Phase II Survey shall be completed by a Historian and/or Architectural Historian meeting the professional qualifications noted in Stipulation V and having experience with iron mining and ore processing properties. The Phase II Survey shall be carried out in conformance with the Secretary of the Interior's Standards for Identification and Evaluation and the MnHPO's current Guidelines for History/Architecture Projects in Minnesota. The report of this Phase II Survey will incorporate all previous reports and documentation completed as the Phase I Reconnaissance Survey for the Historic District during the Section 106 review of this undertaking including:

- *Phase I Evaluation and Historic Context Study, PolyMet Mining Corporation NorthMet Project, Hoyt Lakes, St. Louis County, Minnesota* (Landscape Research LLC, January 2008)
 - *Addendum to Phase I Architectural History Evaluation and Historic Context Study, NorthMet Project, PolyMet Mining, Inc., Hoyt Lakes, St. Louis County, Minnesota* (Poly Met Mining, Inc., November 2014)
 - *Addendum Report on Identification and Evaluation Efforts Pursuant to 36 CFR 800.4 and 36 CFR 800.5, NorthMet Project, St. Louis County, Minnesota* (SNF and USACE, February 2015)
3. The resulting historic property evaluation and comprehensive Phase II Survey report shall include/address the following:
 - a. Analysis of the adequacy of previous identification and evaluation work completed as part of the Phase I reconnaissance survey for properties within the APE. Special attention will be paid to the fact that individual properties were identified and inventoried at a reconnaissance survey level, but they were not fully evaluated within the context of the Historic District and there may be properties or character-defining features which contribute to the Historic District that have not yet been identified.
 - b. Recommendations concerning contributing and noncontributing status for all buildings, structures, objects, sites, and landscape features related to the Historic District's 1954-1969 Period of Significance, along with confirmation and adjustment, if appropriate, of the 1954-1969 Period of Significance recommended during Phase I survey.
 - c. Preparation of Minnesota Architecture-History Inventory Forms for Phase II Survey for all the Historic District buildings, structures, objects, sites, and mining features and the Historic District as whole within the APE associated with the Period of Significance.
 - d. Development of an historical context for the Erie Mining Company reflective of the 1954-1969 Period of Significance, or adjusted if applicable, covering properties both inside of and outside the APE.
 4. PolyMet shall submit the draft Phase II Survey Report and Inventory Forms to the SNF and the USACE for review and coordination with the MnHPO.
 5. Following review and approval of the draft Phase II Survey Report and Inventory Forms by the SNF and USACE, the agencies shall transmit the final draft Phase II Survey Report and Inventory Forms to the MnHPO who shall have thirty (30) days from receipt of the final draft to review the Phase II Survey Report and Inventory Forms and provide comments to the SNF and the USACE.
 6. Within thirty (30) days following receipt of MnHPO comments, the SNF and the USACE shall provide MnHPO comments to PolyMet and PolyMet shall revise the draft Phase II Survey Report and Inventory Forms to incorporate all changes requested by the SNF and the USACE.
 7. If the SNF and USACE choose not to accept a comment by MnHPO, the agencies shall provide a written explanation to MnHPO and consult, as appropriate, to seek resolution.
 8. PolyMet shall submit the revised Final Report and Inventory Forms to SNF and USACE, and the agencies will submit these documents to MnHPO for incorporation into the statewide historic

property records inventory. The Phase II Survey Report and Inventory Forms shall be considered final upon written notice from the SNF and the USACE.

B. Historic Property Documentation Plan

Within four (4) months after the Phase II Survey Report becomes final in accordance with Stipulation I.A.8, PolyMet shall submit to SNF and USACE a draft Historic Property Documentation Plan (Plan) for the portion of the Historic District that lies within the APE. The Plan will be developed and implemented in accordance with the Secretary of the Interior's *Standards for Architectural and Engineering Documentation*, a subset of the Standards described under Stipulation V.

1. Development of Plan

- a. The Plan shall include provisions for completion of an archival permanent record of the Historic District's historic significance and physical attributes. Such documentation shall include an appropriate level of detailed photographic recordation, corresponding historic narratives, and appropriate illustrations to include, but not be limited to, maps, engineering plans/drawings, engineering process drawings, and historic photographs, for the overall Historic District's contributing resources, including landscape features within the APE. This documentation may also include a narrative and illustrated overview of Historic District components outside of the APE, as appropriate, in order to provide context.
- b. Development of the Plan shall draw upon the final Phase II Survey Report from Stipulation I.A for guidance on the significance of the Historic District's contributing and non-contributing resources and character defining features within the APE.
- c. The Plan shall consider and select guidelines, as appropriate, from the Historic American Building Survey (HABS), Historic American Engineering Record (HAER), the Historic American Landscape Survey (HALS), and the Minnesota Historic Property Record (MHPR) as appropriate to the significance and physical attributes of the Historic District property type being documented.
- d. Development of the Plan shall include an assessment of the Erie Mining Company engineering plans/drawing/historic photographs either currently housed at the Administration Building, or another location, to select appropriate documents to supplement photographic documentation in an effort to illustrate significant engineering, architectural, and landscape features within the APE as well as provide a broad level of documentation of the Pelletizer Plant (demolished), Town of Hoyt Lakes, the Erie Mining Company Railroad, Taconite Harbor, as well as any transportation and utility infrastructure properties associated with Erie Mining Company within the designated Period of Significance.
- e. The Plan shall specify what resources are to be documented in the field, the level of effort and method of documentation to be used, and the plans/drawing/historic photographs selected to supplement photographic documentation, as well as the sources that were investigated to locate supplemental documentation.
- f. The Plan shall also provide a proposed outline to integrate the historical narrative of Erie Mining Company, including additional source materials to be referenced.

- g. The Plan shall also provide recommendations in regards to appropriate repositories for final disposition of the documentation as well as provisions for online public access to the documentation.

2. Review of the Historic Property Documentation Plan

- a. PolyMet shall submit the draft Plan to the SNF and the USACE for review and coordination with the MnHPO.
- b. Following review and approval of the draft Plan by the SNF and USACE, the agencies shall transmit the final draft Plan to the MnHPO who shall have thirty (30) days from receipt of the final draft Plan to review and provide comments to the SNF and the USACE.
- c. Within thirty (30) days following receipt of MnHPO comments, the SNF and the USACE shall provide MnHPO comments to PolyMet and PolyMet shall revise the draft Plan to incorporate all changes requested by the SNF and the USACE.
- d. If the SNF and USACE choose not to accept a comment by MnHPO, the agencies shall provide a written explanation to MnHPO and consult, as appropriate, to seek resolution.
- e. The Plan shall be considered final upon written notice from the SNF and the USACE. USACE and SNF shall submit the final Plan to MnHPO.

3. Implementation of the Historic Property Documentation Plan

- a. Within one (1) year after written notice is received by PolyMet that the Plan is considered final, PolyMet shall submit the final draft documentation required in the Plan to the SNF and the USACE for review and coordination with the MnHPO.
- b. Following review and approval of the final draft documentation by the SNF and USACE, the agencies shall transmit the final draft documentation to the MnHPO who shall have thirty (30) days from receipt the final draft documentation to review and provide comment.
- c. Based on comments received from the MnHPO, the SNF and the USACE will notify PolyMet that the final draft documentation meets the requirements outlined in the Plan or provide specific guidance on revisions or additional documentation.
- d. Once the documentation has been accepted, the SNF and the USACE will provide PolyMet written notice of their acceptance of these materials. Once finalized, the agencies shall ensure that the documentation is submitted in final form to the MnHPO and other recipients, if applicable, as specified in the Plan.

C. Phase I Reconnaissance Survey of the Historic District Outside of the APE.

- 1. Within two (2) years after the exchange of lands between SNF and PolyMet has been completed and USACE has issued a final Section 404 permit that is actionable, PolyMet shall complete a Phase I Reconnaissance Level Survey (Phase I Survey) of properties associated with the Erie Mining Company that lie outside the APE for the NorthMet Project.
 - a. This Phase I Survey shall be completed by a Historian and/or Architectural Historian meeting the professional qualifications noted in Stipulation V and having experience with iron mining and ore processing properties. The Phase I Survey shall be carried out in conformance with the Secretary of the Interior's Standards for Identification (Reconnaissance Survey) and the MnHPO's current Guidelines for History/Architectural Projects in Minnesota

- (Reconnaissance Survey). The report of this Phase I Survey shall incorporate information and documentation included in the Phase II Survey for the Historic District within the APE completed pursuant to Stipulation I.A above.
- b. The Phase I Survey shall include, at a minimum, the geographic areas of Hoyt Lakes, Taconite Harbor, and any transportation and utility infrastructure properties associated with Erie Mining Company that date to the designated Period of Significance.
 - c. Within the Erie Mining Company planned community of Hoyt Lakes, the Phase I Survey shall include, at a minimum, a selective sample reconnaissance survey of the residential areas of the community in order to identify select resources for inventory, such as sample blocks, streets, or individual properties, thought likely to be representative of the planned community of Hoyt Lakes.
2. PolyMet shall prepare a draft Research Design that will define the objectives of the proposed survey, provide a brief description of the survey methods, and include a short description of survey expectations. This document will serve as a basis for completion of the survey.
 3. Research Design Review
 - a. PolyMet shall submit the draft Research Design to the SNF and the USACE for review and coordination with the MnHPO.
 - b. Following review and approval of the draft Research Design by the SNF and USACE, the agencies shall transmit the final draft Research Design to the MnHPO who shall have thirty (30) days from receipt of the draft research design to review and provide comments to the SNF and the USACE.
 - c. Within thirty (30) days following receipt of MnHPO comments, the SNF and the USACE shall provide MnHPO comments to PolyMet and PolyMet shall revise the draft Research Design to incorporate all changes requested by the SNF and the USACE.
 - d. If the SNF and USACE choose not to accept a comment by MnHPO, the agencies shall provide a written explanation to MnHPO and consult, as appropriate, to seek resolution.
 - e. The Research Design shall be considered final upon written notice from the SNF and the USACE. The final Research Design shall be the basis for which the Phase I Survey is completed and be incorporated into the final Phase I Survey report.
 4. Once PolyMet has received written notice from the SNF and USACE of the approved Research Design for the Phase I Survey, PolyMet shall implement the finalized Research Design and complete Phase I Survey and prepare the corresponding Phase I Survey Report and Inventory Forms.
 5. After completing the survey as proposed in the Research Design, PolyMet shall submit the draft Phase I Survey Report and Inventory Forms to the SNF and the USACE for review and coordination with the MnHPO.
 6. Following review and approval of the draft Phase I Survey Report and Inventory Forms by the SNF and USACE, the agencies shall transmit the final draft Phase I Survey Report and Inventory

Forms to the MnHPO who shall have thirty (30) days from receipt of the draft to review the report and forms and provide comments to the SNF and the USACE.

7. Within thirty (30) days following receipt of MnHPO comments, the SNF and the USACE shall provide MnHPO comments to PolyMet and PolyMet shall revise the draft Phase II Survey Report and Inventory Forms to incorporate all changes requested by the SNF and the USACE.
8. If the SNF and USACE choose not to accept a comment by MnHPO, the agencies shall provide a written explanation to MnHPO and consult, as appropriate, to seek resolution.
9. PolyMet shall submit the revised report and forms to SNF and USACE, and the agencies will submit these documents to MnHPO for incorporation into the statewide historic property records inventory. The Phase I Survey Report and Inventory Forms shall be considered final upon written notice from the SNF and the USACE.

D. Interim Treatment of Historic Properties

It is anticipated that following execution of this MOA, but prior to completion of the Phase II Survey of the Historic District within the APE pursuant to Stipulation I.A and subsequent development and implementation of the historic property Documentation Plan described in Stipulation I.B above, PolyMet will be carrying out remediation of health and safety hazards in some Plant Site buildings located within the Erie Mining Company Mining Landscape Historic District. Remediation measures shall be confined to the interiors of the Plant Site buildings and utility tunnels connecting the buildings at the Plant Site.

1. SNF, USACE, and MnHPO have determined that the following remediation activities and safety modifications will not affect the exteriors or primary interior spaces of any contributing buildings within the Historic District or cause any alteration to contributing site, structures, objects, or landscape features within the Historic District and therefore may be completed by PolyMet without further SNF or USACE review.
 - a. Remediation to remove deteriorated asbestos insulation from pipes and wiring, and remediation to remove loose and fallen flakes of lead paint from all building surfaces where it now occurs.
 - b. Removal of taconite fines from surfaces that pose a fall hazard and installation of safety railings around open voids in building floors.
 - c. Removal of deteriorated electric cables.
 - d. Removal of asbestos ceiling and floor tiles in the offices, locker rooms, wash rooms, and the central control room.
 - e. Removal of toxic mold on surfaces.
2. For any remediation and other interim activities that will affect the exteriors of, or primary interior spaces of, any contributing buildings within the Historic District or alter any contributing site, structure, object, or landscape feature of the Historic District, the following procedures provide for phased treatment (property evaluation and documentation) meeting the requirements of Stipulation I.A and I.B above. This phased treatment shall be completed and approved by the

SNF and USACE prior to PolyMet initiating any remediation work on the historic property. Any phased treatment prepared pursuant to Stipulations I.D.2.a and I.D.2.b below shall be incorporated into final survey report and inventory forms completed pursuant to Stipulation I.A and also into documentation completed pursuant to Stipulation I.B.

- a. Pursuant to the requirements under Stipulation V *Standards*, a Phase II intensive-level property evaluation, within the context of the Historic District, shall be completed and a *Minnesota Architecture/History Inventory Form* shall be prepared for the contributing building, site, structure, object, or landscape feature of the Historic District which is subject to effects from interim activity.
- b. The Phase II intensive-level property evaluation Inventory Form completed for the historic property subject to remediation shall be reviewed and approved pursuant to the procedure outlined under Stipulation I.A.5-8 above.
- c. Pursuant to the requirements under Stipulation V *Standards*, a Level I Minnesota Historic Property Record (MHPR) shall be prepared in accordance with the *Minnesota Historic Property Record Guidelines (June 2009)* for the contributing building, site, object, or landscape feature of the Historic District which is subject to the remediation activity.
- d. The Level I MHPR prepared as mitigation for the remediation shall be reviewed and approved pursuant to the procedure outlined under Stipulation I.A.5-8 above.

II. Spring Mine Lake Sugarbush

Given that this historic property and those discussed in Stipulations III and IV below are parts of larger cultural landscapes, PolyMet is encouraged, to the extent practicable, to consolidate Tribal consultation efforts in this stipulation with those specified under Stipulations III and IV.

A. Completion of Phase II Intensive Level Survey and Historic Property Inventory Form

Within one (1) year after the exchange of lands between SNF and PolyMet is completed, and USACE has issued a final Section 404 permit that is actionable, PolyMet shall secure the services of a third-party consultant meeting the professional qualifications standards of Stipulation V below in the appropriate field and shall undertake and complete a Phase II Intensive Level Survey (Phase II Archaeological Survey) of the Spring Mine Lake Sugarbush. The Phase II Archaeological Survey shall inform Stipulations II.B and II.E, and shall be completed prior to initiating work on those subparts. The Phase II Archaeological Survey shall be completed to MnHPO standards for Phase II Intensive Level Survey. The Phase II Archaeological Survey shall comply with the following conditions:

1. The draft Research Design for the survey shall be prepared and provided to SNF and USACE for review and comment. SNF and USACE shall coordinate review by MnHPO and the Consulting Bands according to the following procedure:
 - a. Following review and approval of the draft Research Design by the SNF and USACE, the agencies shall transmit the final draft Research Design to the MnHPO and Consulting Bands who shall have thirty (30) days from receipt of the final draft Research Design to review and provide comments to the SNF and USACE.

- b. Within thirty (30) days following receipt of MnHPO and Consulting Bands written comments, the SNF and USACE shall provide MnHPO and Consulting Band comments to PolyMet and PolyMet shall revise the final draft Research Design to incorporate all changes requested by the SNF and USACE.
 - c. If the SNF and USACE choose not to accept a comment by MnHPO or the Consulting Bands, the agencies shall provide a written explanation to both parties and consult, as appropriate, to seek resolution.
 - d. The Research Design shall be considered final upon written notice from the SNF and USACE. The final Research Design shall be the basis on which Phase II Archaeological Survey is completed and incorporated into the Phase II Archaeological Survey report.
2. PolyMet shall coordinate with Bois Forte Band of Chippewa Tribal Historic Preservation Office (Bois Forte THPO) to request the presence of a Tribal monitor during the portion of the fieldwork involving sub-surface sampling. The Tribal monitor shall be provided reasonable compensation which shall be determined between PolyMet and the Bois Forte THPO. Should the Bois Forte Band THPO not be available to address monitoring, PolyMet shall consult with the THPO of the other two Consulting Bands regarding a proposed Tribal monitor. PolyMet shall provide documentation of its effort to obtain the presence of a Tribal monitor and its outcome to SNF and USACE. Should arrangements for the Tribal monitor not be successful, SNF and USACE shall determine, in consultation with the Consulting Bands and MnHPO, whether the sub-surface sampling outlined in Stipulation II.A.3 should take place without the presence of a Tribal monitor.
3. Intensive walkover survey and limited sub-surface sampling (shovel probes) shall be completed sufficient to assess sub-surface data potential adjacent to the structural feature and associated surface artifact concentrations. The consultant should consider the effectiveness of metal detector survey to identify near surface activity areas and isolated artifact scatters in the wider site area.
4. Identification and recordation of senescent sugar maple trees bearing probable tap scars within the site area. Recordation of these Culturally Modified Trees (CMTs) will include assigning field IDs, photo documentation of bole modification, and recordation of locational information with mapping grade Global Positioning Systems (GPS).
5. Site boundary justification sufficient to fulfill requirements of Stipulation II.E.1.
6. A draft final report containing the results of the Phase II Archaeological Survey shall be provided to SNF and USACE for review and comment. The final draft Phase II Archaeological Survey report and corresponding Minnesota Archaeological Site Form and/or Minnesota Architecture-History Inventory Form shall be reviewed and approved pursuant to the procedure outlined under Stipulation IIA.1.a-d above.
7. Following approval by the SNF and USACE, PolyMet shall submit the final Phase II Archaeological Survey report and corresponding site forms to USACE and SNF within sixty (60)

days of receiving comments on the final draft. SNF and USACE will distribute hard copies to the Consulting Bands and MnHPO.

B. Protection Measures

As soon as practicable, and no later than six (6) months after the exchange of lands between SNF and PolyMet has been completed, and USACE has issued a final Section 404 permit that is actionable, PolyMet shall carry out the following measures to prevent removal of cultural materials from the Spring Mine Lake Sugarbush site.

1. Develop and include in the standard training for new employees and contractors information on the significance of the historic property and the company's commitment to protecting it. PolyMet will invite the Consulting Bands to participate in the development of this training.
2. Use of security personnel at the NorthMet Project facility entrance and placement of a locked gate and signage at the road access point to the Sugarbush historic property to discourage casual visitation by nonemployees/contractors, except as provided in Stipulation II.C. The gate shall be placed within the previously disturbed road prism outside of the historic property boundary. PolyMet shall also restrict access to the NorthMet Project area in accordance with Mine Safety and Health Administration (MSHA) regulations, except as provided in Stipulation II.C.
3. PolyMet shall provide documentation of completion of the efforts outlined under Stipulations II.B.1-2 to USACE and SNF. SNF and USACE will submit this documentation to MnHPO and the Consulting Bands.

C. Band Member Access

1. After PolyMet receives its air permit from the Minnesota Pollution Control Agency (MPCA) and prior to implementing its permit to mine, the USACE and SNF shall consult with PolyMet and the Consulting Bands to develop and execute a legally binding Access Agreement (Agreement), consistent with Mine Safety and Health Administration (MSHA) and MPCA regulations, committing PolyMet to provide reasonable, seasonal access to the site by the Consulting Bands and their members.
2. The Agreement will permit Band members to access the site for activities that include, but are not limited to conservation, maintenance, gathering, and sugaring.
3. Should MSHA and MPCA regulations require safety training or other safety protocols as a condition for Band member access to the site, the USACE and SNF will further consult with PolyMet and the Consulting Bands to incorporate into the Agreement, any commitments required by PolyMet to provide safety training and defining any safety protocols required by law.
4. PolyMet shall provide the executed Agreement to the USACE and SNF. SNF and USACE will submit the agreement to the MnHPO, the Consulting Bands, and the ACHP.

5. If the SNF and USACE fail to secure an Agreement between PolyMet and the Consulting Bands, or if PolyMet is unable to secure MSHA and MPCA approval for access by the Bands to the site for the purposes described in II.C.2., the SNF and USACE shall initiate and complete consultation in accordance with Stipulation XI prior to PolyMet's implementation of its permit to mine.

D. Sugar Maple Management Plan

PolyMet shall develop and implement a Sugar Maple Management Plan (Management Plan) to conserve the stands of sugar maples associated with the Spring Mine Lake Sugarbush site. PolyMet shall invite the Consulting Bands to participate in development and implementation of all aspects of the Management Plan. This work shall be initiated as soon as practicable and no later than one (1) year after the exchange of lands between SNF and PolyMet has been completed, and USACE has issued a final Section 404 permit that is actionable. Management Plan development shall comply with the following:

1. PolyMet and a forestry consultant retained by PolyMet shall work with the Consulting Bands to formalize objectives and data collection priorities.
2. Objectives and data collection priorities shall include consideration of Traditional Ecological Knowledge (TEK) specific to traditional Ojibwe sugarbushing.
3. PolyMet's consultant shall collect baseline forestry data from the Spring Mine Lake Sugarbush historic property and a reference maple stand, preferably in an area not previously impacted by effects from mining and other development, to establish baseline conditions of the forest stand at the Spring Mine Lake Sugarbush historic property.
4. Baseline forest stand data will be collected from fixed, permanent plots to permit tracking of vegetation changes over time.
5. Once the baseline data have been collected, PolyMet's consultant shall develop a draft long-term Management Plan for the forest stand within the Spring Mine Lake Sugarbush, including a sampling cycle for forestry data from the Spring Mine Lake Sugarbush site and reference maple stand and provisions for reporting and adjustment of the Management Plan based on the results of this periodic sampling.
6. The draft Management Plan shall be prepared by PolyMet and provided to the SNF and USACE for review and coordination with MnHPO and Consulting Bands. SNF and USACE shall coordinate review by MnHPO and the Consulting Bands according to the procedure outlined under Stipulation II.A.1.a-d above.
7. PolyMet shall submit the final Management Plan to USACE and SNF within sixty (60) days of receiving comments on the draft. USACE and SNF shall distribute copies of the Final Management Plan to the Consulting Bands and MnHPO.

8. PolyMet shall implement the final Management Plan to its terms.

E. National Register of Historic Places Nomination

Within two (2) years after the exchange of lands between the SNF and PolyMet has been completed and USACE has issued a final Section 404 permit that is actionable, PolyMet shall secure the services of a third-party consultant meeting the professional qualifications standards of Stipulation V below and experienced in the preparation of National Register of Historic Places (NRHP) nominations, and complete a NRHP Nomination Form (Nomination Form), in conformance with the National Park Service's Bulletin *How to Complete the National Register Registration Form*, for the Spring Mine Lake Sugarbush historic property.

1. The Nomination Form shall include a narrative description, statement of significance, boundary justification, and the following:
 - a. Results of the archaeological survey completed pursuant to Stipulation IIA;
 - b. Photography of site's setting, features, and artifacts meeting the requirements for photographic submissions to the NRHP;
 - c. Historical research on this specific Sugarbush site;
 - d. Historical research on 19th and early 20th century maple sugaring by Native people in northern Minnesota sufficient to provide a context for this site;
 - e. Ethnographic interviews with members of the Consulting Bands who have knowledge, of or information about, the Spring Lake Mine Sugarbush site and/or the traditional sugaring process; and
 - f. Incorporation of information from the Spring Mine Lake Sugarbush collection at the Logan Museum, Beloit College.
2. Within one (1) year after initiation of this work, PolyMet will provide SNF and USACE with a draft of the Nomination Form for a comment period of one hundred twenty (120) days. SNF and USACE will coordinate review by MnHPO and the Consulting Bands according to the following procedure:
 - a. Following review and approval of the draft Nomination Form by the SNF and USACE, the agencies shall transmit the draft Nomination Form to the MnHPO and Consulting Bands who shall have ninety (90) days from receipt of the draft Nomination Form to review and provide comments to the SNF and USACE.
 - b. Within thirty (30) days following receipt of MnHPO and Consulting Bands written comments, the SNF and the USACE shall provide MnHPO and Consulting Bands comments to PolyMet and PolyMet shall revise the draft Nomination Form to incorporate all changes requested by the SNF and USACE.
 - c. If the SNF and USACE choose not to accept a comment by MnHPO and/or Consulting Bands, the agencies shall provide a written explanation to both parties and consult, as appropriate, to seek resolution.

3. The Nomination Form shall be considered final upon written notice from the MnHPO to the SNF, USACE, and Consulting Bands, with a determination that the Nomination Form is acceptable and has been included on the State Review Board docket. This determination may be made following one (1) review of a draft Nomination Form or may require more than one (1) review following the procedure under II.E.2.a-b to meet this requirement.

III. Beaver Bay to Lake Vermillion Trail: Partridge River Segment

Given that this historic property and those discussed in Stipulations II and IV are parts of larger cultural landscapes, PolyMet is encouraged, to the extent practicable, to consolidate Tribal consultation efforts in this stipulation with those specified under Stipulations II and IV.

A. Phase III Recordation Survey and Completion of Historic Property Inventory Form

Within one (1) year after the exchange of lands between SNF and PolyMet has been completed and USACE has issued a final Section 404 permit that is actionable, and prior to the initiation of ground disturbing activities in the direct effects area, PolyMet shall secure the services of a third-party consultant meeting the professional qualifications standards of Stipulation V below to carry out a field survey of the upland portions of the Beaver Bay to Lake Vermillion Trail corridor within the direct effects area (Mine Site area) within the APE to record any trail-associated features (Attachment 5). The survey shall be considered a close interval surface-level Phase III Documentation (Phase III Documentation) survey to record extant trail alignments or associated features, including the segment previously determined eligible by the co-lead agencies.

1. PolyMet shall direct the consultant to conduct the examination as follows:
 - a. Conduct background research including obtaining the Bands' GIS data on file with University of Minnesota-Duluth Natural Resources Research Institute and carrying out consultation with the Consulting Bands regarding traditional ecological, geographic, and cultural information;
 - b. Offer the Consulting Band THPO's an opportunity to have a representative present for the field portion of the survey;
 - c. Digitize and transfer the route of the trail as shown on the 1874 GLO plat map for T59N, R13W to a current 7.5 minute USGS quadrangle map and, using mapping grade GPS technology, build a track file that can be downloaded to GPS receivers;
 - d. Use handheld mapping grade GPS units to follow the GPS route on the ground within a 50 meter-wide corridor, using the GPS route as the centerline;
 - e. Include in the ground examination all areas within the direct effects portions of the APE, except in lowland areas such as black spruce swamps and wetlands;
 - f. Examine the alignment within the direct effects portion of the APE to identify any potential trail remnants or trail-associated features;
 - g. Record any potential trail remnants or trail-associated features encountered during this field examination, utilizing mapping, photography and verbal description;
 - h. Complete the survey during leaf-off conditions in the spring or fall; and
 - i. Compile field data with previous survey and evaluation data from the USACE and SNF to complete a Historic Property Inventory Form to MnHPO standards.

2. In advance of the field survey, PolyMet shall transmit a proposed Research Design that will provide additional technical detail about how the consultant will conduct the field survey to SNF and USACE for review and coordination with MnHPO and the Consulting Bands. SNF and USACE shall coordinate review by MnHPO and the Consulting Bands according to the procedure outlined under Stipulation II.A.1.a-d above. The final Research Design shall be the basis for which the Phase III Documentation survey is completed and be incorporated into the final Phase III Documentation survey report.
3. Within ninety (90) days after completion of the field survey, PolyMet shall submit a final draft Phase III Documentation survey report of the process followed and results of the examination, including a Historic Property Inventory Form, to SNF and USACE for review and coordination with MnHPO and the Consulting Bands. The SNF and USACE shall coordinate review of the final draft Phase III Documentation survey report and Historic Property Inventory Form with the MnHPO and the Consulting Bands according to the procedure outlines under Stipulation II.A.1.a-d above.
4. PolyMet shall submit a final Phase III Documentation survey report and Historic Property Inventory Form to the USACE and SNF within ninety (90) days of receipt of comments.
5. SNF and USACE will distribute copies to the Consulting Bands and MnHPO.
6. Notwithstanding Stipulation VI below, upon completion of the field survey described in this stipulation, PolyMet shall be able to exercise its rights on the lands exchanged by SNF consistent with applicable state and federal permits.

B. Development of Historic Context for Beaver Bay to Lake Vermilion Trail

1. PolyMet shall engage a consultant meeting the Professional Qualifications of Stipulation V.A to develop an Historic Context for the Beaver Bay to Lake Vermilion Trail. Within one (1) year after the exchange of lands between SNF and PolyMet has been completed, and USACE has issued a final Section 404 permit that is actionable, PolyMet shall prepare a draft scope of work for development of an Historic Context for the Beaver Bay to Lake Vermilion Trail suitable for use in a National Register Multiple Property Documentation Form (MPDF).
2. The purpose of this Historic Context will be to inform future federal agency, Tribal, and MnHPO decision-making concerning identification, evaluation, and management of historic overland trail segments and trail-associated features.
3. The scope of work shall be developed in accordance with Stipulation V.B of this MOA and National Register Bulletin 16B: *How to Complete the National Register Multiple Property Documentation Form*, and will include provisions for, and the development of:
 - a. Background research relying on both historical documents (including early geologic expedition sources) and traditional knowledge;

- b. A primary focus on indigenous use and significance;
 - c. A description of the property, physical characteristics and associative qualities and a discussion of associated property types;
 - d. Geographical information such as the property's relationship to natural resources, topographical features, and soil conditions;
 - e. An assessment of potential finding strategies/technology for identifying trail segments and other features;
 - f. Evaluation criteria for determining National Register significance and integrity, and boundary delineation strategies;
 - g. General management recommendations for the Beaver Bay to Lake Vermillion Trail corridor;
 - h. Suggestions for development of appropriate interpretive materials; and
 - i. Recommendations for identifying, considering, and managing historic pedestrian overland trails in northern Minnesota as a general resource type.
4. PolyMet shall submit the draft scope of work for preparation of the Historic Context to the SNF and USACE for comment and the agencies will respond with any comments within thirty (30) calendar days. Following receipt of comments from the agencies, PolyMet shall incorporate comments and revise the draft scope of work accordingly. PolyMet shall submit a revised draft scope of work to SNF and USACE within fifteen (15) calendar days following receipt of any agency comments.
5. SNF and USACE shall coordinate review of the final draft scope of work for preparation of the Historic Context following the review procedure outlined under Stipulation II.A.1.a-d above. The scope of work shall be considered final upon written notice from SNF and USACE to PolyMet.
6. Following approval of the scope of work, PolyMet shall prepare a draft Historic Context based on the agreed upon scope of work. If, during the preparation of the draft Historic Context, PolyMet's consultant determines that a modification of the planned work would increase the usefulness of the historic context, the consultant and PolyMet shall consult with SNF and USACE. Should this occur, SNF and USACE shall consult with MnHPO and the Consulting Bands and, after considering comments, may then authorize or deny the proposed variance from the scope of work.
7. Within nine (9) months after SNF and USACE provide written notice that the scope of work is final, PolyMet shall submit a draft Historic Context to SNF and USACE for comment. SNF and USACE shall respond with any comments within thirty (30) calendar days of receipt of the draft. PolyMet shall incorporate comments made by the SNF and USACE and revise the draft historic context accordingly. PolyMet shall submit a revised final draft Historic Context to SNF and USACE within sixty (60) calendar days following receipt of any agency comments.
8. SNF and USACE shall submit the revised final draft Historic Context to MnHPO and the Consulting Bands for a sixty (60) day review period. Any comments received by the end of the review period will be taken into account by SNF, USACE, and PolyMet in finalizing the Historic Context.

9. Within sixty (60) days after the close of the comment period, PolyMet shall submit to SNF and USACE ten (10) printed copies and a digital version of the final Historic Context. SNF and USACE shall then distribute the printed copies and, if requested, digital copies of the Historic Context to MnHPO, the Consulting Bands, and other parties as SNF and USACE deem appropriate.
- C. Within one (1) year of the completion of the Historic Context study and investigations described in Stipulation III.A and III.B, the SNF Heritage Program shall lead a five (5) day field survey to locate potential Beaver Bay to Lake Vermillion Trail features and apply the evaluation criteria developed under Stipulation III.B within high-probability locations on SNF managed forest lands in T58N, R10W, Greenwood Lake area. SNF shall provide an opportunity for staff from the Consulting Bands' THPOs, interested Consulting Band members, and MnHPO staff to participate in this field survey project. If there are positive results from this survey project, the SNF shall coordinate the results of this survey with MnHPO and the Consulting Bands and combine the field data with the Historic Context from Stipulation III.B to generate a MPDF for the Beaver Bay to Lake Vermillion Trail.
 1. Within one (1) year of the completion of the field survey completed under Stipulation III.C, the SNF will submit a draft of the MPDF to MnHPO and the Consulting Bands for a comment period of ninety (90) days.
 2. The SNF will revise the document based on the comments received, and within ninety (90) days of receipt of comments, will submit copies of the final MPDF to MnHPO and the Consulting Bands.
 3. The SNF shall coordinate submittal of the final MPDF to the National Park Service (NPS).

IV. *Mesabe Widjiu: Partridge River Segment*

Given that this historic property and those discussed in Stipulations II and III above are parts of larger cultural landscapes, PolyMet is encouraged, to the extent practicable, to consolidate Tribal consultation efforts in this stipulation with those specified under Stipulations II and III.

- A. Within six (6) months after the exchange of lands between SNF and PolyMet has been completed and the USACE has issued a final Section 404 permit that is actionable, but prior to the commencement of active mining operations, PolyMet will coordinate with the THPOs representing the Consulting Bands to provide for a field visit by designated Consulting Band members to the area of the *Mesabe Widjiu* within the NorthMet Project area that will be affected by the mine in order to inform the ethnographic/ethnohistoric study referenced in Stipulation IV.B. below.
- B. Within two (2) years after the exchange of lands between SNF and PolyMet has been completed and the USACE has issued a final Section 404 permit that is actionable, PolyMet shall secure the services of a third-party consultant meeting the professional qualifications standards of Stipulation V below to conduct an ethnographic/ethnohistoric study to document the general extent (Attachment 4) and historic significance of the *Mesabe Widjiu*. Due to the traditional cultural significance of this site,

PolyMet shall consult with the Consulting Bands and USACE and SNF in an effort to identify a mutually-acceptable ethnographer or ethnohistorian to complete this work. The study shall include provisions for, and the development of the following:

1. PolyMet's ethnographer/ethnohistorian shall submit a draft scope of work to SNF and USACE for comment and the agencies will respond with any comments within thirty (30) calendar days of receipt of the draft. Following receipt of comments from the SNF and USACE, PolyMet shall incorporate comments and revise the draft scope of work accordingly. PolyMet shall submit a revised draft scope of work to SNF and USACE within fifteen (15) calendar days following receipt of comments. The scope of work shall include a plan to coordinate interviews with Consulting Band members and other Chippewa consultants through the THPOs representing the Consulting Bands. The scope of work shall also include a plan to provide compensation for Tribal consultants and THPO staff, as appropriate.
 2. SNF and USACE shall submit the revised draft scope of work to MnHPO and the Consulting Bands for a thirty (30) day review period. Any comments received by the end of the review period will be taken into account by SNF, USACE, and PolyMet in finalizing the scope of work.
 3. The scope of work shall be considered final when the SNF and the USACE notify PolyMet in writing that the scope of work is acceptable.
 4. Within one (1) year after written notice that the scope of work is acceptable is received by PolyMet, PolyMet shall submit a draft ethnographic/ethnohistoric report to the SNF and the USACE for a sixty (60) day review period for coordination with MnHPO and Consulting Bands. SNF and USACE shall coordinate review of the draft ethnographic/ethnohistoric report following the review procedure outlined under Stipulation II.A.1.a-d above.
 5. The ethnographic/ethnohistoric study report shall be considered final when SNF and USACE notify PolyMet in writing that the revised final report is acceptable.
- C. Within one (1) year of the completion of the ethnographic/ethnohistoric study final report, the SNF shall consult with the Consulting Bands to develop a Historic Property Management Plan (Plan) for those portions of the *Mesabe Widjiu* identified on lands administered by the SNF. The Plan shall include provisions for additional identification, evaluation, and best management practices, and shall identify a mutually agreeable portion of the property with high integrity for National Register of Historic Places listing. The SNF will incorporate this Plan, including the National Register nomination effort, into the Heritage Resource Program (Section 110 of the NHPA) plan of work. If mutually agreeable to the Consulting Bands, and allowed by the National Register, the SNF will proceed with listing within six (6) months of completion of the Plan. Listing will proceed in consultation with MnHPO, and following existing agency procedures for National Register listing with the NPS.

V. Standards

- A. All activities carried out pursuant to this MOA shall be accomplished by, or completed under the direct supervision of, historic preservation professionals who meet the Secretary of the Interior's *Professional Qualifications Standards* (36 CFR Part 61) in the appropriate field.
- B. All historic property identification, evaluation, and survey work carried out pursuant to this MOA will meet the Secretary of the Interior's *Standards for Archaeology and Historic Preservation* (48 CFR § 44716), applicable National Register of Historic Places Bulletins, and applicable guidelines of the MnHPO.

VI. Notice of Appropriate Completion of Mitigation Measures

Within thirty (30) days after PolyMet submits any final document or materials to SNF and USACE required under one of the Stipulations of this MOA, SNF and USACE shall confirm to PolyMet in writing that the requirements of the applicable stipulation have been met or inform PolyMet of any specific issues that need to be resolved. If PolyMet does not receive written notice from both SNF and USACE within thirty (30) days after submitting the document, PolyMet may assume that there are no unresolved issues pertaining to the applicable stipulation.

VII. Post-Review Discoveries

- A. If previously unidentified historic properties, including human remains, are discovered unexpectedly during construction of the Undertaking, or previously known historic properties are affected in an unanticipated manner, PolyMet shall immediately halt all ground-disturbing or construction activities within a one hundred (100) foot radius of the discovery in order to avoid and/or minimize harm to the property. PolyMet shall notify SNF and USACE by telephone of the discovery, and implement measures to prevent further disturbance to the property. Protective measures shall include, but not be limited to, protective fencing and covering of the discovery with appropriate materials.
- B. Within one (1) working day after receipt of the notification required in Stipulation VII.A above, USACE and SNF shall meet with PolyMet to inspect the site in order to determine the extent of the discovery, the likely impacts to the discovery, initially evaluate the potential significance of the discovery, and ensure that construction activities have halted and appropriate measures have been taken to protect the discovery from further damage.
- C. USACE and SNF will notify MnHPO, and the Consulting Bands if the discovery involves a property of potential religious and cultural significance to the Consulting Bands, within two (2) working days after the discovery.
- D. USACE and SNF will consult with MnHPO and, where appropriate, with the Consulting Bands, concerning the eligibility of, and potential effects, to the discovered property. Completion of any determination of NRHP eligibility shall be undertaken by a qualified professional archaeologist or historian, as appropriate, to record, document, and provide a written recommendation on the NRHP

eligibility of the discovery to the USACE and SNF within seventy-two (72) hours of receipt of notification.

- E. USACE and SNF will inform PolyMet and MnHPO of their determinations of NRHP eligibility within five (5) working days after the NRHP evaluation is complete. Following submittal by USACE and SNF, MnHPO shall have ten (10) calendar days to provide concurrence or comments on the eligibility determination. Alternatively, USACE and SNF may assume the newly discovered property is eligible for the NRHP for purposes of completing the Section 106 review pursuant to 36 CFR § 800.13(c).

1. If the USACE and SNF determine that the discovery does not meet NRHP criteria and is not a historic property, and the MnHPO concurs, the USACE and SNF shall have no further obligations in regards to the discovery, and construction activities can resume upon receipt of MnHPO written concurrence.
2. For any discoveries determined eligible for listing in the NRHP, USACE and SNF, in consultation with MnHPO and PolyMet and, if appropriate, the Consulting Bands, will determine a plan for avoiding, minimizing, or mitigating any further adverse effects prior to resumption of the Undertaking's construction activities in the area of discovery.
 - a. If the USACE and SNF determine that adverse effects to the historic property can be avoided and/or minimized and a finding of "no adverse effect" is appropriate, then construction activities may resume, pending implementation of any conditions on which the finding is based.
 - b. If the USACE and SNF determine that the historic property will be adversely affected, the agencies shall provide a written determination of "adverse effect" to the MnHPO, PolyMet, and, if appropriate, the Consulting Bands, who shall have ten (10) calendar days to provide comments on the finding. USACE and SNF shall consult with the MnHPO, PolyMet, and, if appropriate, the Consulting Bands, to develop a mitigation plan appropriate to the historic property and nature and scale of the adverse effect. If the mitigation is data recovery or some other documentation, construction activities may not resume until after the completion of the fieldwork for the data recovery or documentation.

F. Treatment of Human Remains

1. If any human remains are encountered, PolyMet shall follow the treatment of human remains as per Minnesota Statute (M.S.) 307.08. PolyMet shall immediately notify the St. Louis County Sheriff, the Office of the State Archaeologist (OSA), USACE, and SNF and shall comply with provisions of Stipulation VII.A above. The USACE and SNF shall notify the MnHPO, concurring parties, and appropriate tribes within twenty-four (24) hours of the discovery. The OSA shall coordinate with the Minnesota Indian Affairs Council (MIAC) and the Consulting Bands if the remains are thought to be Native American, in accordance with M.S. 307.08. OSA shall have the final authority in determining if the remains are human.

2. If it is determined that the identified bones are human remains covered under M.S. 307.08, the OSA shall ensure that the appropriate procedures in accordance with Minnesota statutes are fulfilled. OSA is the lead state agency for authentication of burial sites on non-federal lands as per M.S. 307.08. PolyMet shall work with the OSA, USACE, SNF, MnHPO, Consulting Bands, and other parties to develop and implement a reburial plan, if that is the approach selected pursuant to M.S. 307.08, Subd. 7. Avoidance and preservation in place is the preferred option for the treatment of human remains.
3. Suspected human remains shall not be further disturbed or removed until disposition has been determined by the OSA and the MIAC and the Consulting Bands consistent with the guidance titled *State Archaeologists' Procedures for Implementing Minnesota's Private Cemeteries Act* (Anfinson 2008). Photographs shall not be taken of any remains or the immediate setting in which they were found.
4. At all times, the human remains must be treated with the utmost dignity and respect, and in a manner consistent with the ACHP's *Policy Statement on the Treatment of Human Remains, Burial Sites and Funerary Objects* (February 23, 2007).

VIII. Reporting of Implementation

Beginning on the one (1) year anniversary following the execution of this MOA, and continuing annually until the MOA expires, PolyMet shall provide all signatory and concurring parties to this MOA with a summary report detailing activities carried out and/or completed under the terms of this MOA during the preceding year, including any remediation activities completed pursuant to I.D.1-2. Each annual report shall include an itemized listing of all actions required to be taken to implement the terms of the MOA, identify what actions have been taken during the reporting period to implement those terms, identify any problems or unexpected issues encountered during that time, any scheduling changes proposed, and any changes recommended in implementation of the MOA. Each report shall also include a timetable of activities proposed for implementation within the following reporting period.

IX. Duration

- A. This MOA will expire if its terms are not carried out within seven (7) years from the date of its execution. Prior to such time, SNF and USACE may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation XI below.
- B. Exceptions
 1. The requirements of Stipulation VII, regarding Post Review Discoveries, shall continue in effect as long as the mine is in operation and shall be a condition of the section 404 permit.
 2. The requirements of Stipulation II.B. C. and D, regarding the Protection Measures, Band Member Access, and Management Plan for the Spring Mine Lake Sugarbush, shall continue in effect as long as the mine is in operation and shall be conditions of the Section 404 permit, except to the

extent that the Stipulation is the subject of a separate agreement between PolyMet (or its successors or assigns) and the Consulting Bands.

- C. PolyMet's responsibility for satisfying the terms and conditions of this MOA shall also apply to PolyMet's successors and assigns. PolyMet shall initiate amendment of this agreement in accordance with Stipulation XI to transfer responsibility for satisfying the terms and conditions of this MOA to its successors or assigns. In the absence of any amendment that effectively transfers PolyMet's responsibilities under this MOA to a successor or assignee, the SNF and the USACE shall remain responsible for ensuring that all requirements of this MOA are satisfied.

X. Dispute Resolution

Should any signatory or concurring party to this MOA object at any time to any actions proposed or to the manner in which the terms of this MOA are implemented, SNF and USACE shall consult with the objecting party (or parties), with notification to the other signatories and concurring parties, to resolve the objection. After initiation of such consultation, USACE and SNF shall determine within thirty (30) days whether the objection can be resolved through consultation. If USACE and SNF determine that the objection cannot be resolved through consultation, then SNF and USACE shall take the following steps:

- A. Forward all documentation relevant to the dispute, including the SNF and USACE's proposed resolution, to the ACHP, requesting that the ACHP provide SNF and USACE with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, SNF and USACE shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, invited signatory, and concurring parties and provide them with a copy of this written response. SNF and USACE will then proceed according to their final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, SNF and USACE may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, SNF and USACE shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories, invited signatory, and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response. Implementation of this MOA will then proceed according to the USACE and SNF final decision.
- C. SNF and USACE's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

XI. Amendment

Any signatory or invited signatory to this MOA may propose that the MOA be amended, whereupon the parties that have signed this MOA shall consult to consider such an amendment. This MOA may be amended when such an amendment is agreed to in writing by all signatories and the invited signatory. If an amendment is proposed that would affect the properties of religious and cultural significance to the Consulting Bands, SNF and USACE will notify the Consulting Bands of the proposed amendment and

consider any comments from the Bands before making a decision about the amendment. The amendment will be effective on the date a copy signed by all of the signatories and the invited signatory is filed with ACHP. The USACE and SNF shall provide a copy of the amended MOA to all signatories and concurring parties within thirty (30) days of execution.

XII. Termination

- A. If any signatory or invited signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories and invited signatory to attempt to develop an amendment per Stipulation XI, above, including comment opportunities for the Consulting Bands if the subject of the proposed amendment concerns a property of religious and cultural significance to them. If within thirty (30) days (or another time period agreed to by all signatories and the invited signatory) an amendment cannot be reached, any signatory or invited signatory may terminate the MOA upon written notification to the other signatories, the invited signatory, and the concurring parties.
- B. Once the MOA is terminated, if USACE and SNF elect to continue with the Undertaking, SNF and USACE must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. SNF and USACE shall notify the signatories, invited signatory, and concurring parties as to the course of action they will pursue.

Execution of this MOA by SNF, USACE, MnHPO, and ACHP, and implementation of its terms evidences that SNF and USACE have taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

SIGNATORY:

UNITED STATES FOREST SERVICE

Connie Cummins Date: 12-15-16
CONNIE CUMMINS
Forest Supervisor

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

SIGNATORY:

UNITED STATES ARMY CORPS OF ENGINEERS, ST PAUL DISTRICT



Chad Konickson
Chief, Regulatory Branch

Date: 12/15/16

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

SIGNATORY:

MINNESOTA STATE HISTORIC PRESERVATION OFFICE



Amy Spong
Deputy State Historic Preservation Officer

Date: 12-20-16

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**


**SIGNATORY:
ADVISORY COUNCIL ON HISTORIC PRESERVATION**


for John M. Fowler
Executive Director

Date: 12-27-2016

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

**INVITED SIGNATORY:
POLYMET MINING, INC.**



Brad Moore
Executive Vice President, Environmental and Governmental Affairs

Date: 12-16-16

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

**CONCURRING PARTY:
BOIS FORTE BAND OF CHIPPEWA**

_____ Date: _____
Cathy Chavers
Tribal Chairwoman

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

**CONCURRING PARTY:
FOND DU LAC BAND OF LAKE SUPERIOR CHIPPEWA**

Kevin DuPuis
Tribal Chairman

Date: _____

**MEMORANDUM OF AGREEMENT
AMONG
UNITED STATES FOREST SERVICE, SUPERIOR NATIONAL FOREST
UNITED STATES ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
POLYMET MINING, INC
AND THE
MINNESOTA STATE HISTORIC PRESERVATION OFFICER
REGARDING THE NORTHMET MINING PROJECT, ST. LOUIS COUNTY MINNESOTA**

**CONCURRING PARTY:
GRAND PORTAGE BAND OF LAKE SUPERIOR CHIPPEWA**

Norman Deschampe
Tribal Chairman

Date: _____

ATTACHMENT 1
Land exchange area

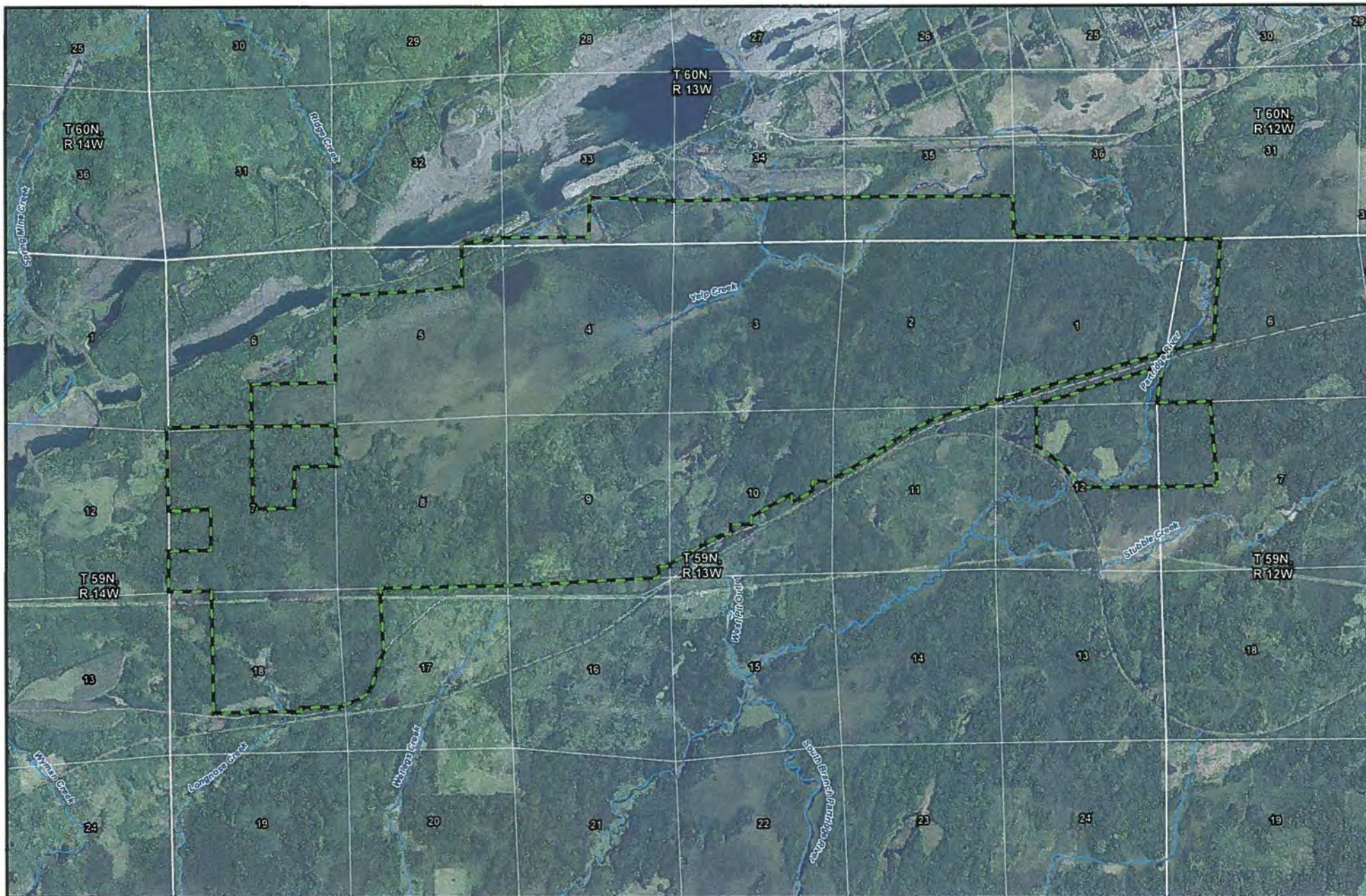
ATTACHMENT 2
NorthMet Area of Potential Effect Map-Aerial. PolyMet, 2014.





ATTACHMENT 2a
NorthMet Area of Potential Effect Map-USGS Quadrangle. Superior NF, 2016.

ATTACHMENT 3 – Identified Historic Properties

ATTACHMENT 4 – Map Depicting Geographic Extent of *Mesabe Widjiu*

ATTACHMENT 5-Mine Site area at the NorthMet Project-USGS Quadrangle. Superior NF, 2016.

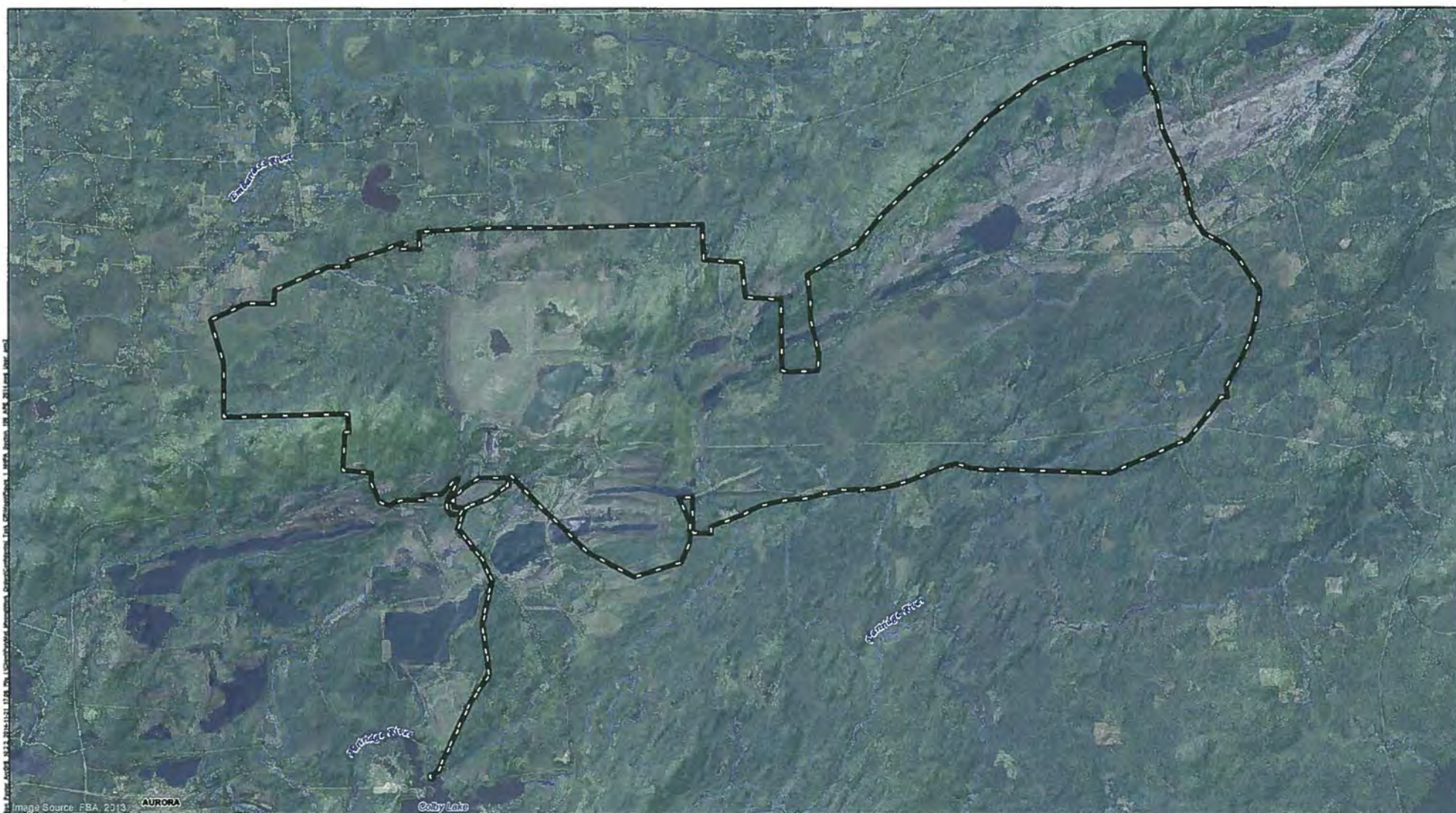


-  Federal Lands
-  Section Label
-  Section Boundary
-  Stream/River



0 1,000 2,000 4,000
Feet

Draft ROD Map 2
Proposed Action - Federal Lands
 NorthMet Mining Project and Land Exchange
 Minnesota



 NHPA Section 106 APE (2014)



Figure 1
NHPA SECTION 106 APE (2014)
NorthMet Project
Poly Met Mining Inc.



1:95,000



NHPA Section 106 APE

April 2009

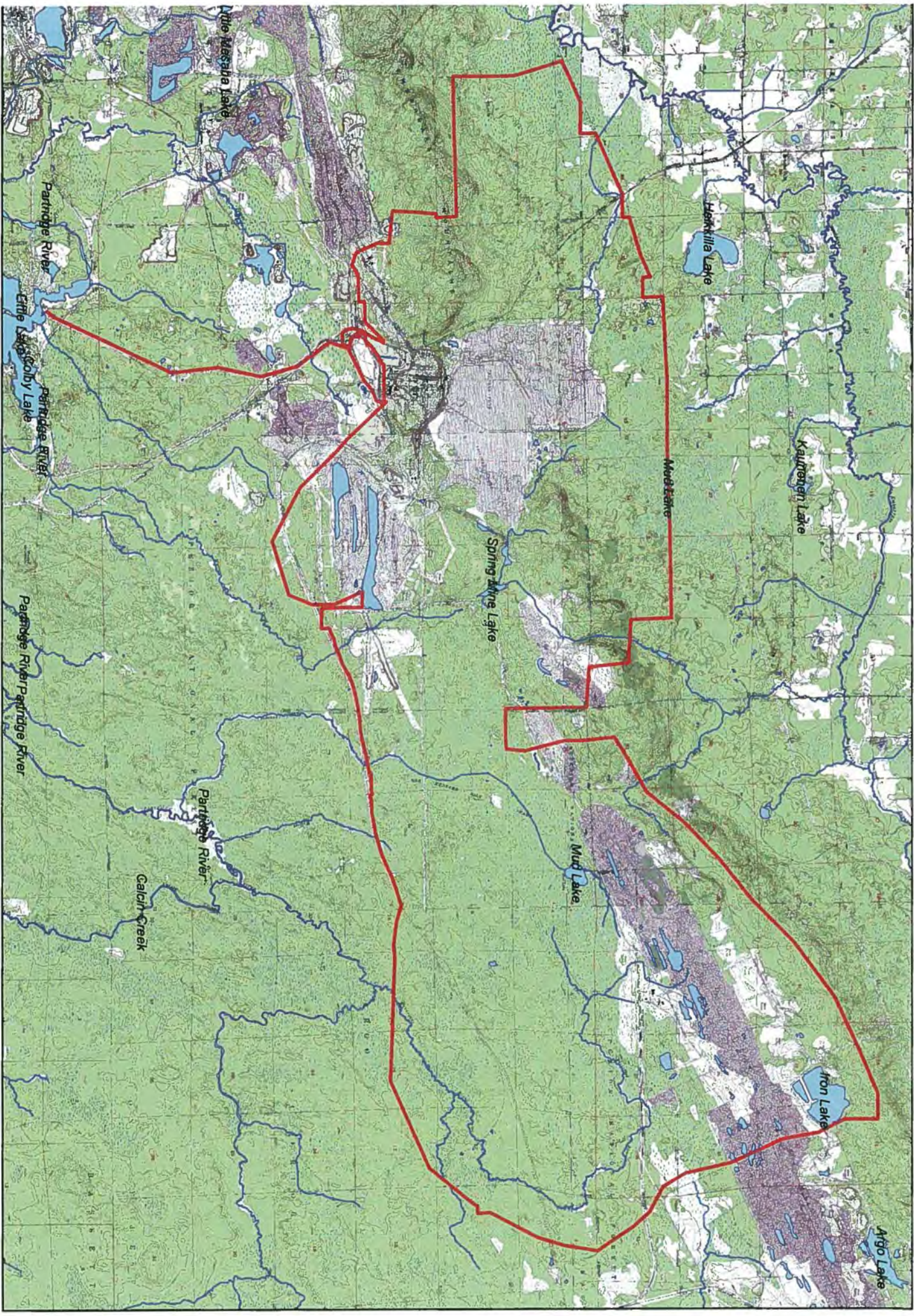
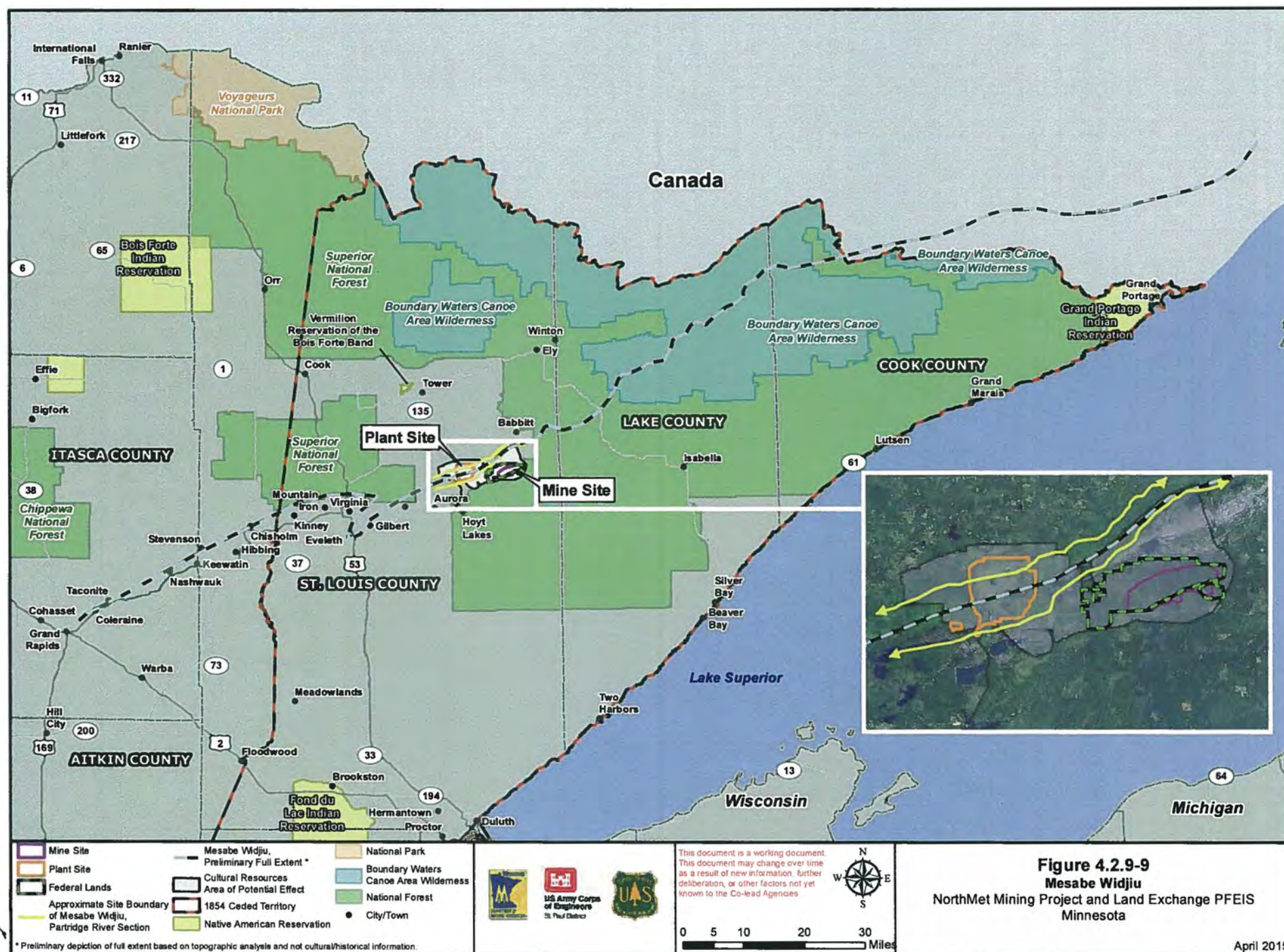
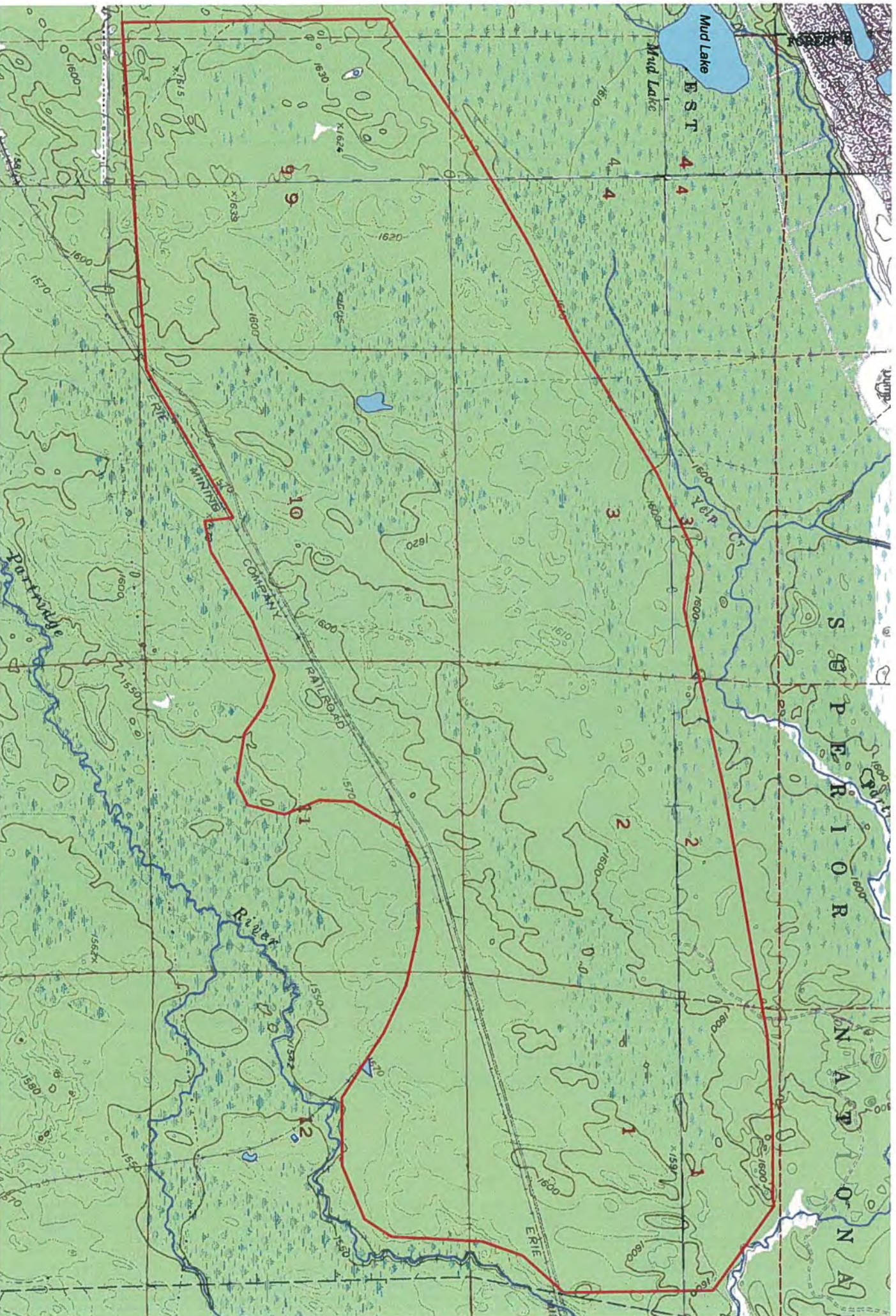


Table 1. Historic Properties within the NorthMet APE				
<i>SHPO #</i>	<i>Property Name</i>	<i>Period of Significance</i>	<i>Individually Eligible</i>	<i>Mining District</i>
SL-HLC-040	EMC Course Crusher	1957-1969	No	Contributing
SL-HLC-041	EMC Fine Crusher	1957-1969	No	Contributing
SL-HLC-042	EMC Conveyor	1957-1969	No	Contributing
SL-HLC-043	EMC General Shops	1957-1969	No	Contributing
SL-HLC-044	EMC Reservoir	1957-1969	No	Contributing
SL-HLC-045	EMC Water Tower	1957-1969	No	Contributing
SL-HLC-046	EMC Concentrator	1957-1969	Yes	Contributing
SL-HLC-047	EMC Thickener Tank	1957-1969	No	Contributing
SL-HLC-048	EMC Pellitizer	1957-1969	Demolished	N/A
SL-HLC-049	EMC Heating Plant	1957-1969	No	Contributing
SL-HLC-050	EMC Fuel Tanks	1957-1969	No	Contributing
SL-HLC-051	EMC Pellet Stacker	1957-1969	No	Contributing
SL-HLC-052	EMC Area 2 Shops	1957-1969	No	Contributing
SL-HLC-053	EMC Mine and Plant RR	1957-1969	Yes	Contributing
SL-HLC-053	EMC Dunka RR	1957-1969	Yes	Contributing
SL-HLC-053	EMC Mainline RR	1957-1969	Yes	Contributing
SL-HLC-054	EMC Tailings Basin	1957-2001	No	Contributing
SL-HLC-055	EMC Area 1 Shops	1957-1969	No	Contributing
SL-HLC-056	EMC Plant Complex	1957-1969	No	Contributing
SL-HLC-Pend	DM&IR Segment	1884	Yes	Non-Contributing
SL-HLC-Pend	EMC Pumping Station	1957-1969	No	Contributing
SL-HLC-Pend	EMC Admin Building	1958-1969	Yes	Contributing

SL-HLC-Pend	Spring Mine/Stockpiles	1906	No	Non-Contributing
SL-HLC-Pend	EMC Area No. 2	1957-1969	No	Contributing
SL-HLC-Pend	EMC Area No. 3	1981	No	Non-Contributing
SL-HLC-Pend	EMC Area No. 5	1981	No	Non-Contributing
SL-HLC-Pend	EMC Dunka Road	1972	No	Non-Contributing
SL-HLC-Pend	EMC Transmission Line	1957	No	Non-Contributing
SL-HLC-Pend	Reserve Crusher #2	1963	No	Non-Contributing
FS #01-559	Beaver Bay Trail Segment	Ca. 1850-1900	Yes	N/A
SL-HLC-Pend	<i>Mesabe Widjiu</i> -PRS	1800-Present	Yes	N/A
SL-HLC-Pend	Spring Mine Lake Sugarbush	Ca. 1800-1950	Yes	N/A





Mine Site area
Attachment 5
1:24000

Attach 5

Legend

 Mine Site