

2.0 EIS DEVELOPMENT

2.1 INTRODUCTION

This section describes the development of the EIS for the NorthMet Project first proposed in 2005, through development of this SDEIS, as well as the FEIS planned for future publication. It includes a discussion of the DEIS development from scoping to publishing; public, tribal, and government agency comments; the Co-lead Agencies' deliberations and decisions; and subsequent development of the SDEIS. An overview of this process is shown in Figure 2.1-1.

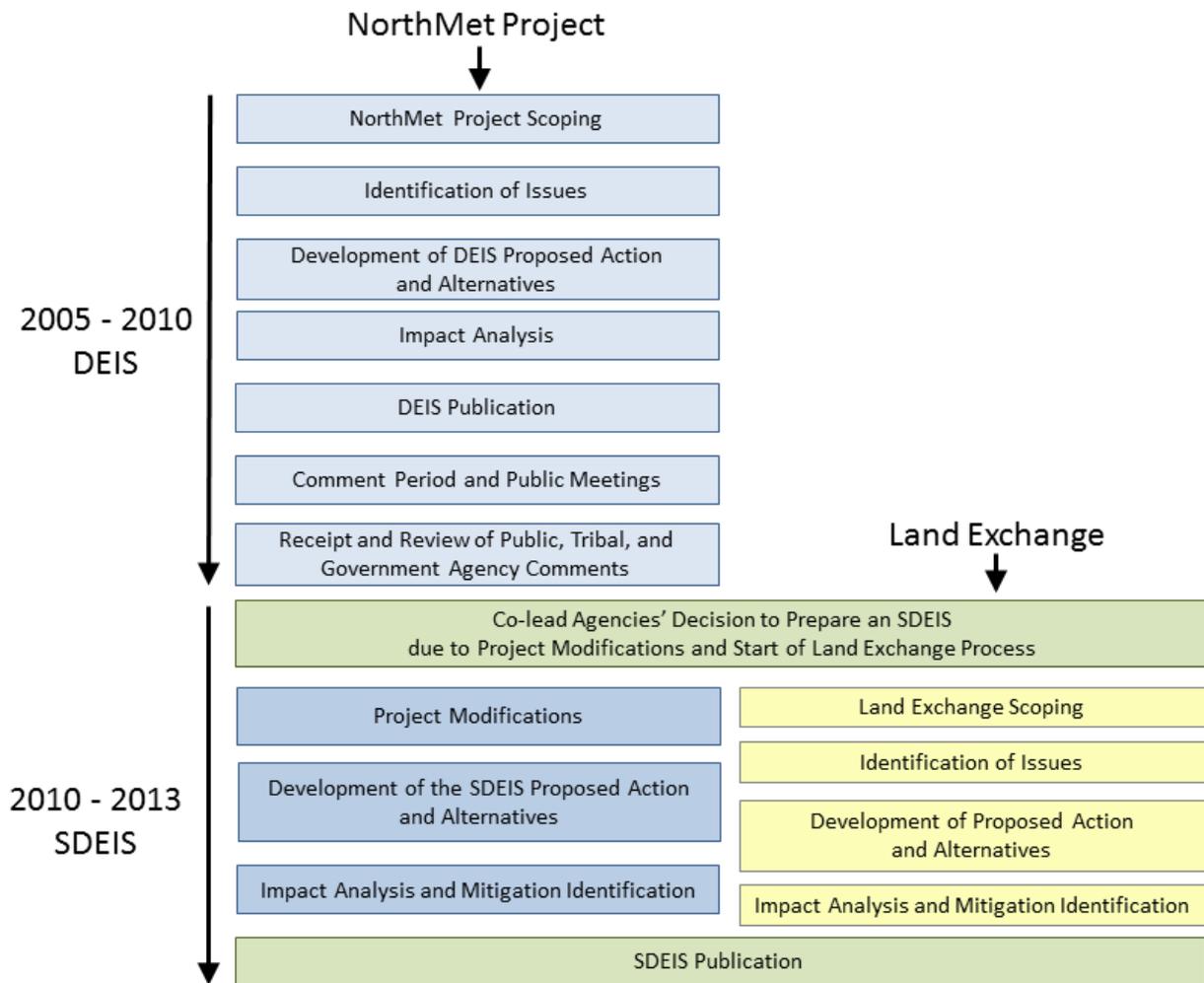


Figure 2.1-1 NorthMet Project and Land Exchange DEIS to SDEIS Development Process

2.2 DEIS DEVELOPMENT

2.2.1 NorthMet Project Scoping

In early 2005, the USACE received a permit application from PolyMet to discharge fill material to waters of the United States, including wetlands, in order to develop the NorthMet Project, requiring the preparation of an EIS pursuant to NEPA. The preparation of a state-level MEPA EIS would also be mandatory for the NorthMet Project.

Scoping is required by both NEPA and MEPA. The scoping process in Minnesota includes all procedural and substantive requirements to satisfy scoping for preparation of a federal EIS under NEPA. As the RGU for this EIS, the MDNR was responsible for administering the state's scoping process.

The DEIS scoping for the NorthMet Project, as originally proposed, involved the preparation of the following three documents:

- the state Scoping Environmental Assessment Worksheet (EAW);
- the state Draft Scoping;
- Decision Document (SDD); and
- the state Final SDD.

After the Draft SDD and EAW were issued via the Environmental Quality Board (EQB) Monitor on June 6, 2005, comments were collected during a 30-day comment period that concluded on July 6, 2005. A public scoping meeting was held in Hoyt Lakes, Minnesota on June 29, 2005. This meeting was hosted by the MDNR and USACE. Comments were addressed in the Response to Public Scoping Comments issued with the Final SDD on October 25, 2005. The USACE issued a Notice of Intent (NOI) to prepare an EIS on July 1, 2005.

2.2.2 Identification of Issues

The scoping process was used to identify potentially significant issues that would trigger the analysis of effects and the development of potential alternatives and mitigation measures.

As discussed in the Final SDD, potentially significant effects included those on fish and wildlife resources, threatened and endangered species, water resources, water appropriations, surface water runoff and erosion/sedimentation, wastewater, and solid waste, as well as cumulative impacts. These impacts required a more detailed discussion than had been provided in the EAW; as a result, they were discussed in detail in the DEIS.

Other issues identified during scoping that were discussed in detail in the DEIS included vegetation cover types, point and non-point source air emissions, noise, cultural resources, visibility, compatibility with land use plans and regulations, infrastructure, asbestiform fibers, and tribal concerns regarding access to lands within the 1854 Ceded Territory.

Additional issues were also considered but eliminated from detailed analysis in the DEIS because they were determined to be immaterial or had been adequately discussed in the EAW. These issues included land use conflicts, water-related land use management, surface water use, geologic hazards and soil conditions, traffic, and odors.

2.2.3 DEIS Proposed Action and Alternatives

The Proposed Action analyzed in the DEIS called for surface mining and mineral processing of approximately 228 million (short) tons of copper-nickel-PGE ore over an approximate 20-year mine life. Proposed mining would occur at the NorthMet Deposit, which is located on undeveloped federal land. Existing infrastructure would be utilized to transport the ore approximately 8 miles to the west for processing at the former LTVSMC processing plant, which would be refurbished if necessary.

In accordance with NEPA and MEPA, a number of project alternatives were identified through scoping. After consideration, the following were evaluated in the DEIS (refer to Section 3.2.3):

- Proposed Action;
- No Action Alternative;
- Mine Site Alternative; and
- Tailings Basin Alternative.

The DEIS included provisions for a surface use permit from the USFS to use its lands for the mine. PolyMet and the USFS had been exploring options to avoid a conflict between the use of the surface (federal) and sub-surface (private) estates. One option was to exchange the federally owned surface land necessary for the proposed mine with other private lands in the area. However, no agreement was reached and the DEIS did not include a land exchange.

2.2.4 Impact Analysis

Potential effects of the NorthMet Project Proposed Action and alternatives were determined using predictive modeling programs, Geographic Information System (GIS) and spatial data analysis, and other impact assessment methods both qualitative and quantitative. The predicted effects and potential mitigation measures were discussed in Chapter 4 of the DEIS.

2.2.5 DEIS Publication

The DEIS was made available to the public through notification in the November 2, 2009 EQB Monitor (Volume 33, Number 22) and November 6, 2009 (Volume 74, Number 214) Federal Register (FR). The notification informed the public that paper copies of the DEIS were available for review at MDNR offices and public libraries in Grand Rapids, Hibbing, Hoyt Lakes, Duluth, Minneapolis, and St. Paul. Summary versions of the document and compact disks containing the full version of the DEIS were provided upon request, and the entire document was also made available via the MDNR's website. Summary versions or full copies on paper or disk were distributed to parties on the MEQB distribution list as well as additional interested parties.

2.2.6 Comment Period and Public Meetings

The MEQB notification also identified that the 90-day comment period would end on February 3, 2010. Instructions and contact information were provided for submittal of public comments.

Following the release of the DEIS, public meetings were held in Aurora, Minnesota on December 9, 2009 and Blaine, Minnesota on December 10, 2009, to gather public comments on the DEIS.

2.2.7 Receipt and Review of Public and Agency Comments

Public and agency comments on the DEIS were collected during the 90-day comment period. Submissions came from government agencies (federal, state, and local), tribal entities, local businesses, non-governmental organizations, private individuals, and PolyMet. Approximately 3,800 comment submissions were received.

The comments were analyzed, and the key issues identified included effects on cultural resources, air quality, wetlands, geotechnical stability, socioeconomics, and water resources. Topic-focused workgroups were assembled from members of the Co-lead and Cooperating Agencies to further consider these issues.

2.3 SDEIS DEVELOPMENT

2.3.1 Co-lead Agency Decision to Prepare an SDEIS

In mid-2010, the Co-lead Agencies decided to prepare an SDEIS that would incorporate a Land Exchange (Section 2.3.1.1), Cooperating Agency and public comments, evolving MPCA guidance, and project refinements made by PolyMet (Section 2.3.2.1). The USACE and USFS published a NOI on October 13, 2010 in the FR (Volume 75, Number 197) indicating the intent to prepare the SDEIS. The NOI identified that scoping would be conducted only for the Land Exchange, with no additional scoping for the proposed NorthMet Project because the issues regarding the mine had not changed. The MDNR published a Notice of Amendment to the Scoping Decision in the EQB Monitor on November 1, 2010.

The SDEIS includes analyses of both the NorthMet Project and the Land Exchange as a connected action.

2.3.1.1 Addition of the Land Exchange

A feasibility analysis, completed by the USFS in November 2009, assessed the potential for a land exchange between the USFS and PolyMet that would involve the federally owned parcel on which the NorthMet Project Mine Site is proposed. The feasibility analysis evaluated one federal tract (encompassing much of the proposed Mine Site) and two non-federal tracts for conformance with the Forest Plan, which included current and future uses of the land tracts. A preliminary monetary valuation indicated that additional parcels would be needed to bring the market value of federal and non-federal lands within the limits required for an exchange. The analysis also determined that additional parcels would be needed to supplement the amount of wetland acres being exchanged, in order to meet the requirements of EO 11990. Three non-federal tracts were subsequently added for consideration in the Land Exchange. These tracts were evaluated for conformance by the same criteria used in the feasibility analysis.

The USFS determined that an EIS would be required to analyze the Land Exchange. Since the exchange constitutes a connected action to the NorthMet Project, it has been incorporated into the NorthMet Project EIS. The USFS subsequently joined the USACE and MDNR as a Co-lead Agency.

2.3.2 NorthMet Project

2.3.2.1 Project Modifications

Several key decisions made by the Co-lead Agencies prompted PolyMet to make project modifications, which further supported the need for an SDEIS to assess effects resulting from the proposed NorthMet Project.

Starting in January 2010, PolyMet made a number of modifications to the original mine plan. These modifications addressed issues identified in DEIS comments and during agency deliberations. The changes were detailed in a series of documents prepared by PolyMet for Co-lead Agency consideration.

In June 2010, the MPCA issued staff recommendations on the site-specific application of the wild rice standard, which states that 10 milligrams per liter (mg/L) of sulfate be applied to waters used for the production of wild rice; this standard applies from April 1 to August 31 each year for the Partridge and Embarrass river systems. The recommendations were updated in March and June 2011. The MPCA guidance also included Tailings Basin performance requirements regarding seepage discharges, limitations to sulfate contributions in surface waters, and monitoring requirements.

Topic-focused workgroups were established to discuss key issues that needed to be closely examined in the SDEIS. These workgroups included representatives from the Co-lead Agencies, Cooperating Agencies, other regulating agencies, and PolyMet. These groups participated in the impact assessment planning process, which led to the development of work plans for data packages and management plans. The workgroups discussed evaluation criteria, methodologies for analysis, potential effects, and possible mitigation measures. Topics addressed by the workgroups included geotechnical stability, wetlands, air resources, and water resources. The water resources group was further divided into four subgroups to address evaluation criteria, groundwater issues, surface water issues, and geochemistry. A socioeconomics workgroup was also established to address tribal concerns regarding potential socioeconomic effects on the Bands from the proposed NorthMet Project.

A workgroup was also established to discuss issues related to the project modifications, alternatives (predominantly the Mine Site and Tailings Basin Alternatives addressed in the DEIS), the wild rice standard, and various mitigation measures identified by the topic-focused workgroups. Discussions resulted in the development of the Co-lead Draft Alternative. In January 2011, the Co-lead Agencies distributed a Draft Alternative Summary to the Cooperating Agencies, other involved agencies, and PolyMet and its consultants for review and comment. The document was updated, recirculated, and released again in March 2011, June 2011, and October 2011.

In 2011, PolyMet incorporated the Co-lead Draft Alternative into its Proposed Action for the NorthMet Project.

2.3.2.2 Revised Proposed Action and Alternatives

As a result of input from the public, Cooperating Agencies, and the Co-lead Agencies via the workgroups, and additional modeling and impact analyses, the NorthMet Project Proposed Action has changed greatly since the release of the DEIS. The NorthMet Project Proposed

Action, as detailed in Chapter 3, now incorporates additional mitigation measures designed to meet applicable regulatory standards over the life of the mine.

Given the changes to the NorthMet Project Proposed Action, some previously considered alternatives are no longer valid because:

- they have been incorporated into the current NorthMet Project Proposed Action;
- they do not correspond to the current design of the NorthMet Project Proposed Action; or
- they do not correspond to effects under the current NorthMet Project Proposed Action.

Thus, only those previously considered alternatives that were still relevant have been rescreened in the SDEIS. The Underground Mining Alternative and backfilling the West Pit with Category 1 waste rock were deemed necessary for reconsideration and are discussed in Section 3.2.3.

2.3.2.3 Impact Analysis

Similar to the analysis in the DEIS, potential effects of the revised NorthMet Project were determined using probabilistic modeling programs, GIS and spatial data analysis, and other impact assessment calculations. These predicted effects are described in Chapter 5.

2.3.3 Land Exchange

Under current surface ownership, the proposed NorthMet Project would affect National Forest System surface lands through the mining of private sub-surface mineral rights. As previously discussed, the USFS and PolyMet developed a Land Exchange proposal by which the federal surface lands at the proposed Mine Site would be transferred to PolyMet ownership in exchange for non-federal lands (to be owned by PolyMet) that would meet the USFS criteria identified in the Forest Plan. Alternatives to the Land Exchange proposal, including the No Action Alternative, have been developed and analyzed in the SDEIS.

2.3.3.1 Land Exchange Scoping

As discussed in Section 2.3.1, the USACE and USFS published an NOI to prepare an SDEIS; this NOI discussed both the intent to prepare an SDEIS, which would supersede the DEIS, and the inclusion of the proposed Land Exchange as a connected action. The NOI identified that the comment period would be held for 45 days and provided notification that scoping comments were limited to the proposed Land Exchange.

Open house scoping sessions were held in Aurora, Minnesota on October 26, 2010 and in New Brighton, Minnesota, on October 27, 2010. At each open house, representatives from the USFS, USACE, MDNR, PolyMet, and the Co-lead Agencies' third-party consultant provided information on the NEPA process, the proposed NorthMet Project and Land Exchange, and how to provide scoping comments.

2.3.3.2 Identification of Issues

Similar to the scoping for the DEIS, the Land Exchange scoping process was used to identify potentially significant issues, less significant issues, and issues considered but eliminated from further consideration as discussed in Appendix G of the May 2011 Detailed Scoping Report for the PolyMet Land Exchange (Environmental Resources Management [ERM] 2011a).

Potentially significant issues identified included the development of exchange alternatives, tribal access rights, and federal trust obligations. These issues are discussed in detail in Chapter 5 of the SDEIS.

Other issues identified in scoping for the Land Exchange included air quality, climate change, cultural/tribal concerns, cumulative effects, ecological functions and values, forest resources, hazardous materials, market value and legal implications, conformance with the Forest Plan, socioeconomics, threatened and endangered species, vegetation and wildlife habitat, water resources, and wetland effects.

Issues considered but eliminated from further consideration included mining-related effects, as these would be discussed as part of the mining action; corporate profits resulting from the Land Exchange; land value disclosures; and adequacy of scoping materials.

2.3.3.3 Proposed Action and Alternatives

A Proposed Action for the Land Exchange was developed that identified potential lands for exchange (see Section 3.3.2 for a description of the federal and non-federal parcels).

Several alternatives to the Proposed Action for the Land Exchange were identified, including the No Action Alternative. The USFS vetted these alternatives for detailed analysis in the SDEIS based on criteria including conformance with the Purpose and Need statements from the project and agencies, technical and economic feasibility, land availability, and potential environmental benefits. Further detail on the screening process is available in Section 3.3.2.1.

Along with the No Action Alternative, only the Land Exchange Alternative B met these criteria and is fully analyzed in the SDEIS. The remaining alternatives—exchange of a single contiguous non-federal parcel, underground mining and other alternative methods of mineral extraction, exchange of other non-federal parcels, and full land exchange with deed restrictions—did not meet these criteria and were eliminated from further analysis.

2.3.3.4 Impact Assessment

The USFS identified resource topic-specific issues, effects, area(s) of analysis, impact indicators, data needs, and analysis methods for assessment of the Land Exchange. These topics, along with assessment results, are discussed in Chapter 5.3 of the SDEIS.

2.4 FEIS DEVELOPMENT

2.4.1 Development of the FEIS

Following publication of the SDEIS, public meetings will be held and comments will be solicited during the public comment period. Based on this input, revisions will be made to the EIS and an FEIS will be prepared. The FEIS will contain responses to public comments from the SDEIS and DEIS. Under MEPA, public comments regarding the adequacy of the information contained in the FEIS will be solicited following the publication of the FEIS. There will be no corresponding comment period under NEPA.

2.4.2 Adequacy Determination/Records of Decision

Following the FEIS comment period, the MDNR will make a determination on the adequacy of the information contained in the FEIS. This determination will be included in the MDNR's Adequacy Decision, along with responses to public comments on the FEIS. The USFS will issue a ROD on the Land Exchange, and the USACE will issue a ROD on the 404 Wetland Permit Application.

2.5 PROJECT PERMITTING AND FINANCIAL ASSURANCE

In addition to the FEIS, ROD, and Adequacy Decision, the appropriate federal, state, and local permits must be obtained before activities could begin for the NorthMet Project. Table 1-1 in Chapter 1, Section 1.4.4 provides a summary of applicable permits and approvals.

Per the State Permit to Mine, financial assurance is required to ensure that there is a source of funds that can be used by the MDNR in the event that PolyMet fails to complete closure and reclamation activities. Reclamation and post-reclamation cost estimates must be updated on an annual basis to account for the activities completed during the previous year. Estimates must be made for the contingency funds required in the event of unplanned closure during the course of the year.

The financial assurance instruments for the proposed NorthMet Project must be approved by the MDNR and be available to the MDNR when needed. The level of engineering design and planning required to calculate detailed financial assurance amounts is typically made available during the permitting process. Section 3.2.2.4.2 provides further discussion on the applicable financial assurance for the NorthMet Project.

Additionally, financial assurance for wetland mitigation is required. Section 5.2.3 presents additional information relative to such mitigations.