

Water Appropriation Permit

What is a water appropriations permit?

Minnesota's surface water and groundwater is what is known as a public trust resource. It is not owned by individuals; rather it is held in trust by the state and managed on behalf of all Minnesotans. DNR's Water Appropriation Permit Program exists to balance the state's objectives in managing the public's water. These objectives include both development and protection of Minnesota's water resources. Minnesota law directs the DNR to manage water resources to provide for reasonable use while ensuring long-term sustainability and natural resource protection. A water appropriation permit from the DNR is required for all users withdrawing more than 10,000 gallons of water per day or 1 million gallons per year.

What water resources are in the project area?

The area encompassing the proposed NorthMet Mining Project (mine, transportation and utility corridor, and processing plant/tailings basin) is located in northeastern Minnesota near the Partridge and Embarrass rivers, which flow into the St. Louis River and ultimately Lake Superior. The Boundary Waters Canoe Area Wilderness and Voyageurs National Park are located outside the Lake Superior watershed. The potential effects of the proposed project on water quantity are addressed in the terms and conditions of the draft water appropriation permits. PolyMet is proposing to appropriate groundwater at the plant site, mine site, and mine pits, as well as surface water from Colby Lake.

What does this draft permit cover?

DNR's draft water appropriation permits balance the development of a project with the protection of Minnesota's water resources. The permits allow for reasonable use while ensuring long-term sustainability and natural resources protection. These draft water appropriation permits do NOT cover permit to mine, dam safety permitting, wetland replacement plan, or financial assurance. Specifically, the six applications for the project proposed water appropriations as follows:

(Note: Water Appropriations are regulated using a million gallon per year measurement. 1000 million gallons per year is equivalent to 1 billion gallons per year)

- Permit 2016-1363: East Pit Dewatering with a volume not to exceed 1000 million gallons per year.
- Permit 2016-1364: Central Pit Dewatering with a volume not to exceed 700 million gallons per year.
- Permit 2016-1365: West Pit Dewatering with a volume not to exceed 800 million gallons per year.
- Permit 2016-1367: Mine Processing and Mine Site Infrastructure with a volume to exceed 1200 million gallons per year.
- Permit 2016-1369: Mine Processing and Plant Site Infrastructure with a volume not to exceed 675 million gallons per year.
- Permit 2017-0260: Colby Lake for Mine Processing Make-up Water with a volume not to exceed 1800 million gallons per year.

What are the expected effects on water quantity and do the terms and conditions of these permits address those?

The proposed NorthMet project would not have a substantial effect on water quantity or stream flow. The water needed for processing at the Plant Site would primarily be provided by using water that would be pumped from the Mine Site (i.e., water generated by dewatering the mine pits, which would be needed to facilitate mine operations) and reusing water from the tailings basin pond. As a contingency measure, any shortfall in water requirements would be made up by withdrawing water from Colby Lake using an existing pump station and pipeline. The permit would allow for an average annual volume of makeup water to be drawn from Colby Lake between 260 and 1,760 gallons per minute (gpm), with an average annual demand of 760 gpm. PolyMet would install and operate a system to capture at least 90 percent of the groundwater seepage at the tailings basin and the permanent waste rock stockpile at the Mine Site. PolyMet would discharge treated water to augment the decreased flow from the tailings basin to several tributary streams to the Embarrass River, as well as at Second Creek in the Partridge River watershed.

What factors does DNR consider in evaluating a water appropriation permit applications?

The purpose of a water appropriation permit is to manage water resources to provide for reasonable use while ensuring long-term sustainability and natural resource protection. The evaluation considers the details of the hydrologic and hydraulic impacts and effects of the operation on the watersheds, including changes in basins, water courses, and groundwater systems. The review includes consideration of the potential impacts of an appropriation on issues such as stream flow, surface water interaction, fish and wildlife, and the potential for impacts to other groundwater users. A permit sets limits on the rate and volume of the appropriation, long term monitoring requirements, and reporting requirements.

Will there be a public meeting on this permit?

No, DNR will not hold a public meeting. The comment period itself is not required under state law, and we do not typically hold public comment periods on draft water appropriation permits. However, DNR understands that there is great interest in this project. We chose to provide a 30 day public comment period to allow the public to review and comment on the draft water appropriation permits. That comment period is now closed.