Potential Sulfide-Ore Copper Mining on Superior National Forest Lands in the Boundary Waters Watershed: Timeline of Key Benchmarks & Potential Next Steps

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1873</td>
<td>Public domain lands in Minnesota withdrawn from General Mining Law of 1872</td>
</tr>
<tr>
<td>1909</td>
<td>Superior National Forest established</td>
</tr>
<tr>
<td>1909</td>
<td>Boundary Waters Treaty signed by Canada and the United States, requiring that neither country pollute boundary waters or waters that flow across the boundary</td>
</tr>
<tr>
<td>1946</td>
<td>Congress authorizes mineral leasing on acquired national forest lands in Minnesota where leasing will not interfere with primary purposes for which the land was acquired</td>
</tr>
<tr>
<td>1950</td>
<td>Contemplating granite, gravel, and iron ore mining that would not interfere with recreational uses, Congress authorizes mineral leasing on public domain national forest lands in Minnesota upon Forest Service consent</td>
</tr>
<tr>
<td>1964</td>
<td>Boundary Waters Canoe Area Wilderness (BWCAW) designated by the Wilderness Act</td>
</tr>
<tr>
<td>1966</td>
<td>BLM issues to predecessor of Twin Metals Minnesota two federal preference right mineral leases (MNES 1352 and MNES 1353) covering nearly 5,000 acres of the Superior National Forest adjacent to the BWCAW for a primary term of 20 years</td>
</tr>
<tr>
<td>1978</td>
<td>Boundary Waters Wilderness Act bans mining within the Wilderness, establishes a 220,000-acre Mining Protection Zone along entry corridors, and further protects the BWCAW</td>
</tr>
<tr>
<td>1989</td>
<td>1352 and 1353 renewed for 10 years</td>
</tr>
<tr>
<td>2004</td>
<td>1352 and 1353 renewed for 10 years</td>
</tr>
<tr>
<td>Oct. 2012</td>
<td>Twin Metals applies for a third 10-year renewal of 1352 and 1353</td>
</tr>
<tr>
<td>May 2012</td>
<td>BLM issues 28 prospecting permits covering over 38,000 acres of the Superior National Forest in the BWCAW watershed</td>
</tr>
<tr>
<td>Mar. 8, 2016</td>
<td>Solicitor of the Department of the Interior Hilary Tompkins issues a legal opinion finding that BLM has discretion to grant or deny Twin Metals’ lease renewal application</td>
</tr>
<tr>
<td>Dec. 14, 2016</td>
<td>Following a 30-day public comment period and two public meetings, Forest Service issues decision withholding its consent to renew 1352 and 1353</td>
</tr>
<tr>
<td>Dec. 15, 2016</td>
<td>BLM denies renewal of 1352 and 1353, and the leases expire</td>
</tr>
<tr>
<td>Jan. 13, 2017</td>
<td>Forest Service files an application to withdraw from mineral leasing approximately 234,000 acres of Superior National Forest lands in the BWCAW watershed, initiating a 2-year segregation, and issues a notice of intent to prepare an environmental impact statement</td>
</tr>
<tr>
<td>Mar.-July 2017</td>
<td>Forest Service holds three public meetings on the proposed withdrawal, with approximately 2,700 people attending and 101 out of 157 speakers supporting withdrawal</td>
</tr>
</tbody>
</table>
Aug. 17, 2017  Forest Service receives more than 125,000 public comments on the proposed withdrawal, with approximately 98% of the over 81,000 unique comments and 94% of the over 44,000 form comments favoring withdrawal.

Dec. 22, 2017  Acting Principal Deputy Solicitor of the Department of the Interior Daniel Jorjani issues a legal opinion withdrawing and replacing the Tompkins opinion and finding that BLM lacked discretion to deny Twin Metals’ lease renewal application.

Jan. 26, 2018  Forest Service downgrades withdrawal study from an environmental impact statement to an environmental assessment and initiates a second public comment period.

Feb. 28, 2018  Forest Service receives an additional nearly 56,000 comments in favor of withdrawal; altogether approximately 98% of the over 180,000 comments received favored withdrawal.

May 2, 2018  BLM rescinds its December 2016 denial of the renewal of 1352 and 1353 and reinstates the expired leases and Twin Metals’ renewal application.

June 2018  Three lawsuits filed in federal district court in DC challenging the reinstatement decision.

Sept. 6, 2018  Secretary of the Department of Agriculture Sonny Perdue announces in a press release that the Forest Service is cancelling its application for withdrawal, and the public process and development of an environmental assessment are terminated; the announcement followed statements by President Trump and Vice President Pence at rallies in Duluth, MN in June and August that they would “rescind the withdrawal” and are “rolling back the ban.”

Dec. 20, 2018  BLM announces its intent to renew 1352 and 1353 and releases an environmental assessment on the proposed addition of terms and conditions to the leases for a 38-day public comment period that spans the 35-day partial government shutdown.

January 2019  BLM establishes e-planning page for “Hardrock Mineral Applications within the Superior National Forest.”

May 15, 2019  BLM renews 1352 and 1353 and posts updated list of 39 pending preference right lease and prospecting permit applications.

Potential Next Steps:

- Additional Forest Service and/or BLM authorizations for exploration activities on 1352 and 1352.
- Twin Metals submission of a mine plan to develop 1352 and 1353; Forest Service approval required.
- BLM issuance of 1-3 new preference right leases; Forest Service consent required.
- BLM issuance of new prospecting permits or extension of existing prospecting permits; Forest Service consent required.