

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
ENVIRONMENTAL APPEALS BOARD  
WASHINGTON, D.C.

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In re: Eagle Mine LLC )  
(a Subsidiary of Lundin )  
Mining Corporation) )  
 ) Docket No. "UIC 15-01"  
 ) ORAL ARGUMENT REQUESTED  
Permit No. GW1810162 )  

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RESPONSE AND OPPOSITION BY SAVE THE WILD U.P. TO EPA REGION 5's  
"MOTION TO DISMISS PETITION FOR LACK OF JURISDICTION AND UNTIMELINESS  
AND MOTION FOR EXTENSION OF TIME"

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## INTRODUCTION

Save the Wild U.P. (“SWUP” or “Petitioner”) hereby replies to the “Motion To Dismiss Petition For Lack Of Jurisdiction And Untimeliness And Motion For Extension Of Time” (“Motion to Dismiss”) filed by the United States Environmental Protection Agency (“EPA”) Region 5 (the “Region”). In their Motion to Dismiss, the Region failed to comprehend or refute the clear and urgent need for federal regulation of industrial wastewater discharges from Eagle Mine LLC (“Eagle Mine” or “the mine”) to surface waters of the United States. Industrial wastewater discharges are currently authorized under the auspices of a groundwater discharge permit, which fails to afford Clean Water Act protections.

Petitioner has requested that the EPA require issuance of a National Pollutant Discharge Elimination System (“NPDES”) permit, as clearly outlined in SWUP’s Petition to the Environmental Appeals Board (“EAB” or “Board”) (UIC Docket 15-01). In filing their Motion to Dismiss, the Region failed to recognize the clear and urgent need for federal regulation and intervention, as previously set forth by SWUP’s Petition to the EAB.

EPA Region 5 has failed to act. Due to abuse of discretion, inadequate assessment of environmental conditions, and permit conditions based on erroneous findings of fact and/or conclusions of law, the Region has allowed the State of Michigan (“MDEQ”) to issue and then reissue a groundwater discharge permit for Eagle Mine, instead of a NPDES permit for surface water discharge, with all of the protections of the Clean Water Act.

Region 5's decision not to require the proper permit was "clearly erroneous" and therefore meets the standard of review of the EAB. The Petitioner has asked that the EAB instruct the Region to require a NPDES permit for the Eagle Mine facility. That urgent request still stands.

In response to EPA Region 5's "Motion to Dismiss," Petitioner refutes the "lack of jurisdiction" claim. The EAB has clear jurisdiction in this matter, because **A)** discharge to surface water is occurring or will be allowed to occur under a groundwater discharge permit, in violation of the Clean Water Act **B)** the EPA is authorized to issue NPDES permits prior to occurrence of an anticipated discharge and **C)** the EPA has failed to require a NPDES permit for discharge to surface waters as required by the Clean Water Act. Further, the Petitioner's appeal for review was timely filed, the EPA has made a reviewable final agency action, there is a substantial history of EPA Region 5's involvement and repeated failure-to-act, with regards to industrial wastewater discharges from Eagle Mine. This is a failure-to-act petition.

The Petitioner objects to the Region's Motion to Dismiss and has provided the Region's counsel with timely notice of their objection. See email: "Objection to Region 5's Motion to Dismiss,"<sup>1</sup> message from Robert Thompson, counsel for EPA Region 5 to Save the Wild U.P., May 27th, 2015; with reply from Alexandra Maxwell."<sup>2</sup> Because EPA's Motion to Dismiss was filed after the deadline, it was by definition untimely and must be disregarded. Accordingly, SWUP respectfully requests that the Environmental Appeals Board ("EAB") disregard the Region's Motion to Dismiss, and grant the Petition.

## **OBJECTION TO MOTION TO DISMISS**

### **I. THE EAB HAS JURISDICTION**

#### **A. Discharge to Surface Water is Occurring or Will Occur**

Since a discharge to surface water is occurring or will occur, the Petitioner is asking the EAB to require issuance of a NPDES permit. EPA Region 5 has failed to act by not requiring the State of Michigan to issue a NPDES permit for this surface water discharge. The EAB clearly has jurisdiction to review EPA's failure to act. Petitioner is not asking EAB to review the groundwater discharge permit issued by the State of Michigan, but to require issuance of a NPDES permit. In their Motion to Dismiss, EPA Region 5 clearly failed to comprehend the Petitioner's request.

It remains undisputed that discharge to surface water is occurring or will occur in the near future. There is no current modeling, however, for the site where the discharges are taking place — no

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<sup>1</sup> Email message from Robert Thompson, counsel for EPA Region 5, reply from Alexandra Maxwell: <http://bit.ly/1cCbUKw>

<sup>2</sup> Note: when counsel for the Region 5 contacted Petitioner by email on May 27th, stating that they intended to file a Motion to Dismiss by end of the day, and asking whether Petitioner concurred or objected, no explanation for their action was provided. A draft of the Motion to Dismiss was only provided when the Petitioner requested an explanation.

monitoring of groundwater volume or flow direction has taken place since 2008, prior to the redesign of Eagle Mine’s rapid infiltration system, prior to the operation of the Treated Water Infiltration System (“TWIS”), prior to the mine’s date of operation, and prior to the mine’s discharges. To date, EPA Region 5, State of Michigan regulators, and Eagle Mine have failed to identify the horizontal hydrological boundaries of the East Branch of the Salmon Trout River and its uppermost tributaries. Eagle Mine’s industrial mine water discharges clearly constitute a direct discharge to surface waters of the United States because **1)** the discharges take the shortest, non-circuitous route between point of discharge and the groundwater-surface-water interface (GSI), **2)** there exists an immediate hydrologic connection to surface waters of the U.S., and **3)** discharged waters proceed immediately downgradient from Eagle Mine’s TWIS to the Salmon Trout River, waters of the United States:



**Figure 1:** The groundwater-surface-water interface: spring-fed tributaries of East Branch Salmon Trout River flow out of the hillside, immediately downgradient of Eagle Mine’s industrial wastewater discharge point (May 2015).

Eagle Mine’s groundwater discharge permit does not require surface water monitoring or surface water compliance wells at the springs (GSI) of the East Branch of the Salmon Trout River. The Salmon-Trout river system is undeveloped and receives no other industrial discharge waters. As it currently stands, this constitutes an unregulated discharge to surface waters of the United States.

As clearly noted in the original Petition, groundwater permit conditions for effluent discharge are insufficient to protect surface water. For this reason, the Eagle Mine must be required to obtain a NPDES permit under the Clean Water Act. Petitioner has repeatedly asked state regulators and the Region to issue a NPDES permit with limits sufficiently protective of the identified groundwater-surface water interface, including aquatic life, fish and wildlife dependant upon the health of freshwater springs, the Salmon Trout River, and Lake Superior. By design, a groundwater discharge permit is not protective of surface water. Surface water standards are designed to keep macroinvertebrates and sensitive aquatic ecosystems safe from dangerous levels of metals and salts, and extremes in pH.

Under a Clean Water Act permit, the contaminants in Eagle Mine's industrial wastewater discharges would be properly regulated. Currently, no numeric limits have been set for heavy metals of concern, including antimony, chromium, cobalt, lead, nickel, thallium and zinc. In addition, vanadium levels are rising in groundwater wells near the facility's upgradient discharge point (TWIS), and regulators have failed to require Eagle Mine to conclusively determine the source of rising levels of uranium in the facility's sump water. NPDES standards are necessarily more restrictive, applying aquatic life standards rather than groundwater limits (or Safe Drinking Water Act standards). Under NPDES permitting, the Salmon Trout River would be protected by anti-degradation and anti-backsliding provisions of the Clean Water Act. As it stands, there are absolutely no numeric limits defining water quality at the GSI.

Action in this case is urgently requested. It is critical to understand that the Salmon Trout River is spring-fed, and that "groundwater seeps and groundwater fed wetlands are of primary importance to the maintenance of stream ecosystems and flow regimes. This source of water is maintained through recharge, or the infiltration of water from the ground surface down to the water table"<sup>3</sup> and the subsequent re-expression of that water in the form of freshwater springs. The hydraulic connection is direct and apparent. In particular, "extensive headwater spring seepage"<sup>4</sup> (GSI) creates the uppermost East Branch of the Salmon Trout River. Eagle Mine's current discharges must be properly understood to be, and regulated as, surface water discharges, with all the environmental safeguards afforded by a NPDES permit.

EPA Region 5 has failed to act by not requiring the State of Michigan to issue a NPDES permit for this industrial wastewater discharge. The hydrological connection between Eagle Mine's 'groundwater' discharges and nearby springs are undeniable. **For additional context, see video clip from May 10th, 2015, documenting the groundwater-surface-water-interface point for Eagle Mine's discharges:**

<https://flic.kr/p/ubuyyz>

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<sup>3</sup> See: Salmon Trout River Watershed Management Plan, 2007.

[http://www.michigan.gov/documents/deq/wb-nps-salmontrout-wmp\\_284714\\_7.pdf](http://www.michigan.gov/documents/deq/wb-nps-salmontrout-wmp_284714_7.pdf)

<sup>4</sup> See: "Fisheries Management Plan for the Salmon Trout River, Marquette County, Michigan" Michigan Fisheries Division, Technical Report (No 88-7, July 20, 1988): [https://www.michigan.gov/documents/dnr/88-7tr\\_363004\\_7.pdf](https://www.michigan.gov/documents/dnr/88-7tr_363004_7.pdf)



**Figure 2:** Eagle Mine’s industrial wastewater discharges are conveyed through the shallow aquifer downgradient to the GSI: where groundwater springs feed the the Salmon Trout River, surface waters of the U.S. (May 2015).

The State of Michigan has repeatedly misrepresented the groundwater discharge permit as being equivalent to the federal NPDES permitting program, and has claimed that a groundwater discharge permit provides protections equivalent to those found under the Clean Water Act. According to a ‘Fact Sheet’ distributed at the (groundwater discharge permit) public hearing and available on the Michigan Department of Environmental Quality’s web site, “The discharge permit is designed so that *surface water quality standards* will be met at the *groundwater surface water interface*.”<sup>5</sup> Despite such assurances, the groundwater discharge permit does not require monitoring or compliance wells at the GSI. In fact, the groundwater discharge permit fails to mention the “groundwater surface water interface” or GSI, or even surface water, except to state “This permit does not authorize any discharge to the surface waters.”

Eagle Mine is using the flow of groundwater through the surficial aquifer as the means of furthering the “discrete conveyance” for transport and disposal of their industrial wastewater discharges after it passes through a rapid infiltration system that it constructed and modified, in order to bypass federal permitting. Wastewater’s brief excursion through groundwater is used to transport Eagle

<sup>5</sup> [http://www.michigan.gov/som/0,4669,7-192-45414\\_45416-350998--,00.html](http://www.michigan.gov/som/0,4669,7-192-45414_45416-350998--,00.html)

Mine's effluent to the groundwater-surface-water-interface, where groundwater-fed springs emerge to become tributaries of the Salmon Trout River, and waters of the United States.

The MDEQ's selection of a groundwater discharge permit for the industrial mine water discharges at Eagle mine is inconsistent with the guidance used by other states where EPA has delegated its authority under the Clean Water Act. In Oregon, for example, the guidance used by state regulators<sup>6</sup> makes clear that a NPDES would be required at Eagle mine. EPA Region 5 should not be able to do anything less.

## **B. The EPA Is Authorized To Issue NPDES Permits Prior To A Discharge**

The Region has clear jurisdiction to issue a NPDES permit. The discharges occurring today are direct discharges, conveyed to surface waters. The NPDES program requires permits for discharges of pollutants from any point source into waters of the United States. 40 C.F.R. § 122.1(b). In addition, "point source" is defined, in part, as "any discernible, confined, and *discrete conveyance* . . . from which pollutants are or may be discharged." 40 C.F.R. § 122.2; 42 U.S.C. § 1362(14). In this case, groundwater, in the surficial aquifer, is used as the means of discrete conveyance. Under the NPDES program, "any person who discharges or proposes to discharge pollutants" into waters of the United States is required to apply for a NPDES permit. 40 C.F.R. § 122.21(a).

The Region's uncertainty concerning whether a point source discharge to surface water is currently occurring at Eagle Mine (or about to occur) is not among the enumerated reasons set forth in federal regulations as to whether a NPDES permit should be required. 40 C.F.R. § 122.4. NPDES regulations clearly indicate that the mine *has a duty to apply for a NPDES permit prior to a discharge*. Therefore Eagle Mine must be required to apply for a NPDES in accordance with federal guidelines specifying that an application be submitted "180 days before the discharge" 40 CFR § 122.21(c).

## **C. Groundwater Discharge Permit Cannot Substitute for CWA Permit**

The State of Michigan, Region 5 and Eagle Mine have attempted to substitute a groundwater discharge permit for a federal Clean Water Act permit. These permitting programs are not interchangeable. A groundwater discharge permit is designed to be protective of human drinking water. NPDES — a surface water discharge permit — is designed to be protective of aquatic life. In issuing a Groundwater Discharge Permit to Eagle Mine, the Michigan Department of Environmental Quality stated "The discharge permit is designed so that *surface water quality standards* will be met at the *groundwater surface water interface*." Only a NPDES permit can protect the GSI and the Salmon Trout River, as only a NPDES permit affords the full protections of the Clean Water Act.

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<sup>6</sup> <http://www.deq.state.or.us/wq/pubs/imds/indirectdischarge.pdf>

## II. Petitioner's Appeal For Review Was Timely Filed, and EPA Has Made A Reviewable Final Agency Action

The Region's argument about timeliness of this Petition is inapposite. Tinka Hyde's February 21, 2014 letter to Mr. Loman stated:

“An NPDES permit is needed for a discharge to groundwater where there is a direct hydrologic connection between groundwater and waters of the United States. We have considered the potential applicability of the Clean Water Act's NPDES program to the process wastewater being generated by the Eagle Mine and discharged to groundwater. We do not believe that there is evidence of a direct discharge from this treatment unit to surface waters at this time.”

See SWUP's Petition to EAB, “UIC 15-01, Attachment 8 - Letter EPA Region 5 to Loman Feb 2014”.<sup>7</sup> This is EPA's determination that the discharge did not require a NPDES permit; that was a federal agency action. Then, on March 25, 2015 when MDEQ issued its state groundwater discharge permit, the EPA again failed to exercise its regulatory oversight by allowing that groundwater discharge permit to stand in the place of the required NPDES permit. That was yet another final agency action taken by EPA. The most recent EPA action over which EAB has jurisdiction took place on March 25, 2015, when the 30-day time period in which to file this Petition began.<sup>8</sup> SWUP filed its Petition on April 24, 2015, within the 30 day time period.

Again, this is a failure-to-act Petition. As the EAB is aware, the Keweenaw Bay Indian Community (“KBIC”), of which Mr. Loman is a member, supports SWUP's petition for review and seeks identical relief. Asking or otherwise encouraging a regulatory agency to follow the law in no way prevents the EAB from addressing this Petition. Failure to review will result in damage to natural resources followed by breach of trust claims, which could otherwise have been prevented by the EAB. The trust responsibility that EPA has to KBIC — namely, that others not unreasonably pollute within its ceded territory where tribal members like Mr. Loman hunt, fish and gather plants for food and medicine — should strengthen the jurisdiction of the EAB in this matter and has no time limits if EPA is to act properly as a trustee to its Indian beneficiary. See declaration of support from KBIC President Swartz, Docket No. GW1810162, “On behalf of the Keweenaw Bay Indian Community, declaration as to the position of KBIC on the industrial mine water discharges.”<sup>9</sup>

**If any recent action should be deemed *untimely*, it would be EPA Region 5's Motion to Dismiss, filed on May 27th, two days after the 30-day time period for response had closed (on May 25th).**

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<sup>7</sup> Letter from EPA Region 5 to Loman February 2014: <http://1.usa.gov/1AMBw3d>

<sup>8</sup> A Groundwater Discharge Permit was re-issued March 25, 2015: [http://www.michigan.gov/documents/deq/wrd-gw-EagleMine-permit-final\\_485411\\_7.pdf](http://www.michigan.gov/documents/deq/wrd-gw-EagleMine-permit-final_485411_7.pdf)

<sup>9</sup> <http://1.usa.gov/1M85yP3>



### III. Chronological Summary of EPA Region 5's Involvement<sup>10</sup>

In 2004, EPA mandated a Underground Injection Control (UIC) permit under the Safe Drinking Water Act (SDWA) provisions. This mandate was withdrawn in 2010 when Eagle Mine's former owner/operator Rio Tinto/Kennecott modified or otherwise altered the design of a rapid infiltration system that constitutes a discrete conveyance by which up to 504,000 gallons per day can be discharged. The Region has not performed any evaluation whatsoever to determine how the modifications to the rapid infiltration system in 2010 would affect the fate and transport of the industrial mine water discharges at Eagle Mine. All of the industrial mine water discharged through the rapid infiltration system (TWIS) enters into the hyporheic zone, beneath and adjacent to the East Branch of the Salmon Trout River. The Region is clearly erroneous in its determination that the industrial mine water discharges do not constitute a "direct discharge" to surface waters of the United States. In shallow aquifer systems, it is widely understood that no technical distinction exists between "direct" and "indirect" discharges, as wastewater discharges rapidly enter groundwater and are "discretely conveyed" to hyporheic and surface water through hydraulic connectivity. This connection is clearly demonstrated at the GSI .

Petitioner requests the opportunity to demonstrate these facts in detail, in oral argument before the EPA's Environmental Appeals Board. EPA Region 5 is simply unable to dispute these facts because they failed to obtain an independent comprehensive analysis of a representative sample the mine cores obtained to delineate the Eagle orebody, they failed to require fate and transport modeling for discharges conveyed through the surficial aquifer, they failed to conduct any independent evaluation of the industrial mine water discharges, and they failed to trace discharges from the rapid infiltration system through the surficial aquifer, in order to obtain a precise understanding of their flow in relation to surrounding hydrology, or impacts to the nearby groundwater-surface-water interface.

The Environmental Appeals Board should refrain from allowing the regulatory fiasco at Eagle Mine to give rise for dismissal for timeliness and/or jurisdiction. Stripped to its essence: industrial mine water discharges are being released at the Eagle Mine through discrete conveyance, into waters of the United States – and EPA Region 5 has failed to require a NPDES permit.

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### OBJECTION TO REQUEST FOR TIME EXTENSION

Petitioner objects to EPA's request for an extension of 30 days to file its response to Save the Wild U.P.'s Petition. EPA has been aware of this issue for at least five years. Save the Wild U.P., Mr. Loman, the Keweenaw Bay Indian Community, National Wildlife Federation and others have

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<sup>10</sup> A chronology of EPA Region 5's involvement with industrial wastewater discharges at Eagle Mine can be found here: <http://www.epa.gov/r5water/uic/kennecott/>

repeatedly made the EPA aware of the state's failure to require a NPDES permit here, where it is necessary. A 30 day extension to EPA is another 30 days in which this unpermitted discharge to surface waters is occurring. We object.

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## **RELIEF REQUESTED: THE EAB SHOULD GRANT THE PETITION**

In light of the clear industrial nature of Eagle Mine's wastewater, the presence of hazardous metals and high levels of salt in the wastewater, groundwater well exceedances (including pH, arsenic, copper, lead, molybdenum, silver, vanadium), in the absence of any permit-enforced monitoring regime for the acknowledged groundwater-surface water interface (GSI), and given the lack of hydrologic flow assessment for groundwater now moving from the Treated Wastewater Infiltration System (TWIS) toward springs feeding the Salmon Trout River, Petitioner requests that the EAB exercise its authority under 40 CFR § 124.2(a), and direct the EPA to either require MDEQ to require Eagle Mine to obtain a NPDES permit which will more appropriately protect surface water and aquatic life, or to require EPA to intervene and do so itself in accord with 40 C.F.R. § 122.

Eagle Mine's TWIS system was intentionally redesigned to utilize the surficial aquifer as a discrete conveyance. As a surface water discharge through a discrete conveyance, a NPDES permit is required. With regards to the TWIS used for industrial wastewater discharges at the Eagle Mine facility located in Marquette County, Michigan, in Sections 11 and 12 of Township 50 North, Range 29 West, Petitioner requests regulation in accordance with the Clean Water Act, specifically by use of a National Pollution Discharge Elimination Systems (NPDES) with oversight provided by the regulatory authority of the Environmental Protection Agency.

For all of the reasons set forth in this Response, and all of the reasons originally outlined in EAB Petition docket UIC 15-01, the Petitioner's request remains timely, valid, credible and urgent.

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info@savethewildup.org

**Petitioner**

Kathleen Heideman, Save the Wild U.P. president (signing for "Petitioner")

Date: June 5, 2015

Handwritten signature of Kathleen Heideman in black ink, featuring a long horizontal flourish at the end.

Alexandra Maxwell, Save the Wild U.P. interim director (signing for "Petitioner")

Date: June 5, 2015

Handwritten signature of Alexandra Maxwell in black ink, consisting of stylized cursive letters.

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### **STATEMENT OF COMPLIANCE**

The response has been prepared in complied with the formatting and length requirements specified in the Environmental Appeal Board's Practice Manual.

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## CERTIFICATE OF SERVICE

I hereby certify, pursuant to the Rules of the Environmental Appeals Board of the U.S. Environmental Protection Agency, that on June 5, 2015, the foregoing was filed electronically with the Clerk of the Environmental Appeals Board using the Central Data Exchange. The foregoing will be served by U.S. mail as paper copies on interested parties in this matter, who are listed below.



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