Control Letter File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV - 9 2016

REPLY TO THE ATTENTION OF:

William G. Boerner
2131 Tori Lane
Marinette, Wisconsin 54143

Dear Mr. Boerner:

Thank you for your letter and petition of October 25, 2016 to EPA Administrator Gina McCarthy regarding the proposed Aquila Resources, Inc. Back Forty open pit zinc, copper, and gold mine, northwest of Stephenson in Menominee County, Michigan.

In your letter, you request that EPA prepare an environmental impact study. Environmental Impact Statements are prepared under the National Environmental Policy Act (NEPA) by lead federal agencies to inform federal decision making. There are no federal decisions to be made on the Back Forty Mine project. Therefore, NEPA is not triggered. All permitting decisions required for this mine project rest with the State of Michigan.

The Michigan Department of Environmental Quality (MDEQ) has primary responsibility for regulating the Back 40 mine as the permitting authority. This includes implementing federal requirements under Section 402 of the Clean Water Act (CWA) (regulating wastewater discharges into waters of the United States), Section 404 of the CWA (regulating discharges of fill into waters of the U.S.), and the Clean Air Act (CAA) (regulating air emissions). MDEQ also operates a separate Permit to Mine program under state authority.

EPA maintains an oversight role for the MDEQ permits that implement federal requirements under the CWA and the CAA. EPA reviewed and commented on MDEQ's draft permit under CWA Section 402, and the draft air pollution construction permit issued pursuant to Michigan's Part 2 minor source construction permitting program. MDEQ solicited public comment on both of those draft permits through November 3, 2016. EPA's comment letters are enclosed. EPA will take your comments into consideration as it continues to review MDEQ's proposed actions after MDEQ reviews and responds to comments.

EPA objected to the issuance of a Michigan wetlands and inland lakes and streams permit (CWA Section 404) on August 15, 2016, because Aquila had not demonstrated compliance with the CWA Section 404. EPA also noted concerns regarding cultural resources and requested that MDEQ confirm its coordination with Michigan's State Historical Preservation Officer and Tribal archeologists. A copy of EPA's August 15, 2016 letter is also attached. On September 23, 2016, Aquila withdrew its CWA Section 404 application with the intention of reapplying to MDEQ, in which case there would likely be another public comment period and hearing for the wetlands and inland lakes and streams permit at a later date. EPA would restart its Section 404 oversight review of the project based on the new application.

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Thank you for sharing your input on this project. If you have further questions about NEPA, please contact Ken Westlake, Chief, NEPA Implementation Section, at 312-886-2910 and westlake.kenneth@epa.gov. Surface water permitting questions can be directed to Krista McKim, 312-312-353-8270 and mckim.krista@epa.gov. Wetlands permitting questions can be directed to Melanie Burdick at 312-886-2255 and burdick.melanie@epa.gov. Air permitting questions can be directed to Constantine Blathras at 312-886-0671 and blathras.constantine@epa.gov.

Sincerely,

Alan Walts, Director
Office of Enforcement and Compliance Assurance

Enclosures

Cc: Annette Switzer, MDEQ, Air Quality Division, Lansing
Colleen O'Keefe, MDEQ, Land and Water Management Division, Lansing
Phil Argiroff, Water Resources Division, Lansing

Standard bcc's:	NEPA Implementation Section Reading File NEPA Control Letter File
Other bcc's:	Tywanna Greene, OECA Peter Swenson, Watersheds and Wetlands Branch, Water Division Melanie Burdick, Watersheds and Wetlands Branch, Water Division Kevin Pierard, NPDES Programs Branch, Water Division Krista McKim, NPDES Programs Branch, Water Division Genevieve Damico, Air Permits Section, Air and Radiation Division Constantine Blathras, Air Permits Section, Air and Radiation Division
Author:	Ken Westlake
Filename:	G:OECA/NEPA/NEPA control letters/AX-17-000-0885 Reply to William G. Boermer re Back Forty Mine, Menominee County, MI
Control Number:	AX-17-000-0885

CONCURRENCES

Org/Unit:	Author	Plain Lang.	Team Leader	Admin/ Clr.	DD/ OD	ORA *(Special Assistant)*	ORA
Initial/Date:	11/8/16	11/8/16	11/8/16	DS 11/8/2016	CAW 11/9/16		
Other Concurrences:							

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NOV 02 2016

REPLY TO THE ATTENTION OF:

WN-16J

Phil Argiroff, Chief
Permits Section
Water Resources Division
Michigan Department of Environmental Quality
525 West Allegan
Post Office Box 30473
Lansing, Michigan 48909-7973

Re: U.S. Environmental Protection Agency Review of the Draft NPDES Permit for Aquila Resources Inc. – Back Forty Project MI0059945

Dear Mr. Argiroff:

The U.S. Environmental Protection Agency has reviewed Michigan Department of Environmental Quality's (MDEQ) Draft National Pollutant Discharge Elimination System (NPDES) permit for the proposed Aquila Resources, Inc. – Back Forty project which was public noticed on August 3, 2016. EPA is providing the following comments on the draft permit.

Protection of freshwater mussels in the Menominee River: EPA has reviewed the reasonable potential analysis and limits development calculations that the MDEQ completed for the draft permit. We concur that MDEQ has appropriately implemented Michigan's numeric criteria for acute exposures to copper at concentrations that could be toxic to aquatic life. We have also noted that freshwater mussels listed by the State of Michigan as endangered and as "species of concern" are present in the Menominee River (see Chapter 3.4 and Appendix D of the permit application) in the vicinity of the proposed outfall. Since Michigan's numeric copper criteria were developed using organisms which may be more tolerant of copper exposures than the mussels present in the Menominee River, and federal requirements at 40 CFR § 122.4(d) and 40 CFR § 122.44(d) require that permits be issued with conditions to ensure protection of narrative criteria as well as numeric criteria, we recommend that MDEQ add to the testing requirements in Section I.1.i (Acute Toxicity Final Requirements) of the Draft Permit, a test that includes freshwater mussels as the test organism. The American Society of Testing and Materials has published a method for conducting toxicity tests on freshwater mussels (E2455) and this test has been approved for use in NPDES permits in another Region 5 state.

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Ambient Water Quality Monitoring requirements. The Draft NPDES Permit would require monitoring of the outfall, but does not require ambient monitoring in the receiving waters. Because water quality impacts resulting from new mines can result in pollutant discharges not accurately predicted in a permit application, it is important that the permit include a robust monitoring plan to ensure that there is no unpermitted or undetected discharge of pollutants from the facility to the nearby surface waters of the Menominee River and the Shaky River watersheds.

Additionally, we are aware that MDEQ intends to include ambient water quality monitoring in the permit to mine, but since the permit to mine is not a permit that is subject to federal NPDES permitting or enforcement authority we believe that ambient water quality monitoring also needs to be included among the requirements of the NPDES permit.

The benefits of including explicit requirements for ambient water quality monitoring in the NPDES permit include the following:

- In-stream monitoring would enable MDEQ and EPA to determine if seepage discharges are occurring and impacting nearby surface waters,
- In-stream monitoring would enable the detection of discharges to surface waters that are not authorized by the NPDES permit,
- Ensuring clarity and transparency of applicable monitoring requirements and strengthening MDEQ's ability to enforce permit conditions,
- Access to data in a timely manner. While the permit to mine requires an annual report of the environmental monitoring data, we recommend that the ambient water quality monitoring be reported during the month following each monitoring event,
- Data reporting would be consistent with the applicant's other NPDES permit reporting requirements, and as specified at 40 C.F.R. § 122.41(l)(4)(i), which requires that data be reported on a discharge monitoring report. This also would ensure the availability of this data in MDEQ's and EPA's online databases.

We believe that MDEQ could potentially address this comment by including in the NPDES permit all of the water quality related monitoring requirements that would be included in the permit to mine in order to avoid duplicate or overlapping requirements in the two permits. However, at present it is unclear what the ambient water quality monitoring requirements will be in the permit to mine, and we believe that the ambient water quality monitoring requirements need to be sufficient to ensure that any unauthorized discharges to surface waters are able to be identified in a timely manner so that they can then be remedied.

Method detection limits for arsenic. The draft permit contains water quality based effluent limits for arsenic calculated by considering Michigan water quality standards that apply in the Menominee River and specifies a quantification level for arsenic at 1.0 µg/L. However, the Clean Water Act requires that permits include limits which are protective of water quality standards of downstream states. (See 33 U.S.C. § 1342(b)(5)). The downstream water quality standard promulgated by the State of Wisconsin for the protection of the drinking water use in Lake Michigan is 0.2 µg/L. We recommend that the permit require that measurements for arsenic in the discharge as well as in the Menominee River and Shaky River watershed be done using a

method with a quantification level at 0.5 µg/L, which is the lowest quantification level of any method approved under 40 CFR § 136 (EPA-NERL: 200.9, Determination of Trace Elements by Stabilized Temperature Graphite Furnace Atomic Absorption). This will enable MDEQ and EPA to obtain better data to evaluate whether the discharge has the potential to exceed the applicable Wisconsin arsenic standard.

When the Proposed Permit is prepared, please forward a copy and any significant comments received during any public notice period to r5npdes@epa.gov. Please include the permit number, the facility name, and the words "Proposed Permit" in the message title. If you have any technical questions related to EPA's review, please contact Krista McKim at (312) 353-8270 or at mckim.krista@epa.gov.

Sincerely,

Kevin M. Pierard, Chief
NPDES Programs Branch

cc: Alvin Lam, MDEQ, electronically
Joe Maki, MDEQ, electronically

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

OCT 2 6 2016

Annette Switzer
Michigan Permit Section Supervisor
Department of Environmental Quality
Air Quality Division
P.O. Box 30260
Lansing, Michigan 48909-7760

Dear Ms. Switzer:

Thank you for the opportunity to provide the Michigan Department of Environmental Quality (MDEQ) our comments on the draft construction permit for Aquila Resources Inc. (Permit number 205-15). We provide these comments to help ensure that the project meets the Clean Air Act (CAA) requirements, that the permit will provide the necessary information so that the basis for the permit decision is transparent and readily accessible to the public, and that the permit record provides adequate support for the decision. Below are our comments:

1) On page 7, Section III, condition 2, requires the permittee to maintain the air pressure within EUHGRETORT lower than the press room air pressure so that air flows into EUHGRETORT at all times when EUHGRETORT is operating. However, there is no associated monitoring or recordkeeping requirement which requires the permittee to measure the air pressure within the EUHGRETORT. As drafted, this permit condition is not practically enforceable. EPA recommends that the draft permit include a requirement to install and maintain a device to measure the air pressure of the EUHGRETORT, the press room, and outside ambient air pressure to demonstrate that a lower air pressure is achieved and maintained. This condition should include the appropriate reporting and recordkeeping in order to assure compliance with the permit requirement.

2) On page 7, the draft permit has a limit for mercury for unit EUHGRETORT. The draft permit does not provide any test method or time period for this permit limit. As EPA has discussed with MDEQ, EPA believes that each applicable permit condition should specifically identify the respective test method that the source will use to adequately demonstrate compliance with each emission limit in the permit. By not identifying the test methods, the public is not provided the necessary information to know in advance how compliance will be determined by the subject facility. EPA believes that the test method should be provided in the draft permit, while still providing MDEQ the flexibility to modify the testing methods in the event the test methods are modified or supplanted by more advanced or alternative test methods. The draft permit can contain permit language

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that provides MDEQ the flexibility that they approve actual the specific testing methods at the time of the test in advance of the test date and substitute any test method that becomes applicable in the future, in advance of the test date.

3) On page 10, the draft permit requires the use of a wet scrubber system for the pollution control equipment. Section III, condition 2, requires the permittee to maintain the ranges specified in the malfunction abatement plan (MAP) for the wet scrubber pressure drop and liquid flow rate. However, the permit does not specify the efficiency at which the wet scrubber must operate. Based on our discussions with your staff and the permit application regarding the operation of the wet scrubber, MDEQ should include a minimum control efficiency of 95% for the wet scrubber in the permit as an enforceable condition. The pressure drop and liquid flow rate should be set and maintained at a level which will achieve at least 95% control efficiency and these parameters should be part of the applicable MAP.

4) On pages 15 and 17, the units FG1STCRUSHER and EU3DECKSCREEN, EU2NDCRUSHER, EU3RDCRUSHER, EUSPTRANSFERPTS, requires the installation and use of a baghouse(s) (DC-01 and DC-02) for the control of particulate matter. The draft permit requires the use of a pressure drop monitor for the satisfactory use of the baghouses. EPA believes that a pressure drop monitoring system is not sufficient to assure compliance and demonstrate that the baghouses are being operated in a satisfactory manner. MDEQ should require the use of additional monitoring systems, such as bag leak detection, to adequately demonstrate that the baghouses are being maintained and operated in a satisfactory manner.

5) On page 25, the draft permit requires the permittee to maintain the moisture content of the concentrate at approximately 10% or higher. The draft permit does not specify the method the permittee shall use in demonstrating that the moisture concentrate is at least 10% moisture. MDEQ should include a condition which requires the permittee to test the moisture content of the concentrate at points that are most susceptible to creating fugitive emissions, with sampling done not more than a few inches below the top surface of the concentrate pile to be tested.

6) Appendix A of the draft permit contains the Fugitive Dust Control Plan (plan) (October 2015, updated August 2016). The plan specifies the procedures and practices the permittee must use to minimize and eliminate fugitive dust at the site. EPA has the following concerns with the plan elements:

(a) The plan establishes speed limits for haul roads at 15 miles per hour and 20 miles per hour for service roads outside of the haul roads areas. The plan does not provide any practical enforceable methods to determine if the drivers of the trucks are staying below the posted speed limits. MDEQ should include provisions, such as speed detection systems to accurately know the speed limits are being followed.

(b) The plan requires that a dust suppressant be applied to the haul and service roads. The plan does not address the roadway just outside of the mine site. The plan should include a requirement that the public roadways immediately outside

of the facility be observed on a routine basis to determine if they require watering, sweeping, or the application of a dust suppressant due to truck traffic from the site as necessary.

(c) The plan requires the use of concrete barriers around ore storage piles. The plan should require that the storage piles should be loaded at a maximum level which would not exceed the height of the concrete barriers. Additionally, ore in the haul trucks should be loaded as to not exceed the top of the truck bed side walls in order to minimize fugitive dust.

EPA will continue to work with MDEQ in identifying test methods and appropriate compliance language in the draft permit. We would like to thank you for working with us to ensure that these concerns are resolved in a timely manner. If you have any further questions, please feel free to contact Constantine Blathras at (312) 886-0671.

Sincerely,

Genevieve Damico

Genevieve Damico
Chief
Air Permits Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

AUG 1 5 2016

REPLY TO THE ATTENTION OF:

WW-16J

Ms. Colleen O'Keefe
Land and Water Management Division
Michigan Department of Environmental Quality
P.O. Box 30028
Lansing, Michigan 48909

Re: Public Notice No. 2B5-QHB6-CZE8, Aquila Resources Inc.

Dear Ms. O'Keefe:

The United States Environmental Protection Agency appreciates the opportunity to provide comments on the subject Michigan Department of Environmental Quality's (MDEQ) May 17, 2016 public notice, in which Aquila Resources, Inc. proposes to develop a new polymetallic mineral mine known as the Back Forty Project. The proposed project is located in Sections 1, 11, and 12 of Township 35 North, Range 29 West; Sections 4-9 of Township 35 North, Range 28 West; and Section 32 of Township 36 North, Range 28, Lake Township, Menominee County, Michigan.

The U.S. Army Corps of Engineers (Corps) provided comments to the EPA on the proposed project and permit application. The comments that follow are provided pursuant to Section 404(j) of the Clean Water Act (CWA), the regulations in 40 C.F.R. § 233, and as further prescribed in the Memorandum of Agreement between the State of Michigan and EPA for implementation of the 404 permit program (MOA). These represent the combined federal comments of the EPA and the Corps. Our detailed comments on the MDEQ Wetlands and Inlands Lakes and Streams permit application are enclosed.

As described in the public notice and the application, the purpose of the proposed project is to develop a new polymetallic zinc, copper, and gold mine. The project includes an open pit mine, surface infrastructure facilities, a beneficiation plant, and overburden and tailings stockpiles. The Back Forty Project would require the filling of 0.2 acres of wetlands for the purpose of constructing a haul road, dredging of 1.9 acres of wetlands within the mine pit, and dewatering of 12.53 acres of wetlands. The project is located along the Menominee River.

In preliminary discussions with the MDEQ, your staff has indicated it shares many of EPA's concerns, and MDEQ has requested additional information from the applicant. Your staff also indicated that the project will likely require a second public notice based on the applicant's

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response. As of this date, the second public notice has not been issued. An amended application and new public notice may address EPA's concerns. To avoid complications from multiple applications and technical documents, EPA requests that the amended application include a single application with all up-to-date versions of the various attachments.

Pursuant to the CWA Section 404(b)(1) Guidelines (Guidelines), the applicant bears the burden of clearly demonstrating that the preferred alternative is the least environmentally damaging practicable alternative (LEDPA) that achieves the overall project purpose, minimizes impacts to the aquatic environment to the maximum extent practicable, and does not cause or contribute to significant degradation of waters of the U.S. The federal agencies have identified specific concerns with the project as proposed. Our concerns focus on the deficiencies in the impacts analysis, the significance of aquatic resource impacts, and the demonstration of adequate compensation for wetland and stream impacts. Therefore, this project does not comply with the Guidelines, and we object to the issuance of a permit for this project.

In order to address EPA's objections, the MDEQ shall require the following[1]:

- A finalized site plan;
- A comprehensive aquatic resource impacts assessment that identifies all regulated wetlands and streams on-site and off-site within the potential indirect impact area;
- An alternatives analysis that avoids and minimizes all direct, indirect, and cumulative aquatic resource impacts to the maximum practicable extent; and
- A complete wetland mitigation plan that provides sufficient in-kind compensation for wetland and stream impacts, and meets the requirements of the 2008 Federal Mitigation Rule.

This letter constitutes a Federal objection to the issuance of a permit for this project. Pursuant to CWA § 404(j) and the CWA 404 MOA Section 5(d)-(e), the MDEQ has 90 days from the date of this letter to work with the applicant to resolve the issues raised above or deny the permit. The MDEQ may request a public hearing on EPA's objection. If the State does not satisfactorily resolve this objection within 90 days after the date of this letter, or within 30 days after the completion of the hearing if one is held, authority to issue the CWA Section 404 permit transfers to the U.S. Army Corps of Engineers.

Thank you for the opportunity to provide comments on this application. We look forward to working with you to resolve the issues discussed in this letter. Please contact Melanie Burdick at (312) 886-2255 with any questions you may have.

Sincerely,

Tinka G. Hyde

Tinka G. Hyde
Director, Water Division

[1] Refer to the enclosure for more specific requirements and recommendations.

Enclosure: Detailed EPA comments on the Michigan Wetlands and Inland Lakes and Streams Permit Application for the Back Forty Project

Application Completeness

The project plan views indicate that the proposed facility layout is subject to change. A final site plan is needed to demonstrate the significance of the impacts and the least environmentally damaging practicable alternative. To fully evaluate all potential aquatic resource impacts, the applicant should include the maximum foreseeable impacts.

The project plan would result in Shore Road terminating within the project area. There will likely be a need to re-route Shore Road. Because this reroute would be required because of the proposed project, the impacts, alternatives, and mitigation analysis should include any aquatic resource impacts from the construction of a bypass road around the mine. If there is any other infrastructure (power lines, access roads, etc.) needed to facilitate the project, the associated aquatic resources impacts must also be included in the application.

Stream and Wetland Impacts

To evaluate the significance of the proposed adverse effect to aquatic resources and whether the applicant has avoided and minimized impacts to the greatest extent practicable, a comprehensive analysis of the aquatic resource impacts is necessary. The agencies have identified sufficient errors and information gaps in the impacts analysis to determine that applicant has not demonstrated compliance with the 404(b)(1) Guidelines.

Regulatory Status

In its July 29, 2016 letter to EPA the Corp identified several "un-regulated wetlands" within the impact area that may be hydrologically connected to the Menominee River. Groundwater and geochemistry reports submitted to MDEQ indicated that wetlands labelled as isolated may be hydrologically connected to the Menominee River, which would indicate that the wetlands are regulated. MDEQ must re-evaluate the regulatory status based on the recent ground water and geochemistry reports produced as part of the mine application.

As a result of a May 2016 site visit with the applicant, MDEQ, and EPA staff, MDEQ requested the applicant to re-evaluate the regulatory status of wetlands where there were delineation errors. For example, Wetland A3 appears to be mislabeled as isolated from Wetland A1 and Wetland 40/41 extend off site and are likely regulated as part of a larger wetland complex.

Portions of Wetland B2 contain stream characteristics, including a defined bed and bank and ordinary high water mark, which are not identified as stream in the impacts assessment. The application must be amended to fully identify stream impacts. If impacts to streams cannot be fully avoided, the applicant must provide stream mitigation.

Dewatering impacts

For the analysis of indirect effects to wetlands, the application does not include all off-site wetlands. For groundwater drawdown, the applicant identifies wetland impacts as groundwater influenced wetland within the 0.5 foot projected drawdown contour (Figure II-1), but the analysis does not include all off-site wetlands within the 0.5 foot contour. For example, off-site portions of Wetlands A1, B1, 2b, 40, 41, and a forested wetland south of wetland 5 are not identified in Figure II-1, and it does not appear that they were included in the indirect effects analysis (i.e. Appendix E, Indirect Impacts Assessment). In its review of aerial photos, the Corps identified what appears to be an unmapped linear water feature that may be within the indirect impact area in Section 6, Township 35 North, Range 28 West. Therefore, it appears that the applicant has not identified the full extent of dewatering impacts to these wetlands, and the applicant must identify all wetlands and streams that may be impacted.

Appendix E includes proposed thresholds to determine whether a wetland will be impacted by the loss of one third or two thirds of its drainage area depending on its status as surface or groundwater dependency (Appendix E). The application does not include sufficient rationale for the proposed watershed loss thresholds.

Stormwater impacts

The Corps identifies a concern that sediment release due to erosion and stormwater may adversely affect wetlands. The application lists stormwater control as an activity within their project timeline (Figure 2-1), and sedimentation basins are displayed on site maps, but a description of stormwater control is not included in the application. By including specific methods to minimize stormwater impacts and by identifying which wetlands may be impacted, potential impacts from stormwater and erosion could be reduced.

Invasive Species

To prevent the spread of invasive species throughout the project area, all equipment must be washed following Michigan's established guidelines[1] to remove exotic or invasive species before entering a watershed or after encountering invasive species. It is important to follow these guidelines since, once introduced into a watershed, invasive species can move and eventually affect wetland species diversity.

Surface Water Quality

In its letter to EPA, the Corps indicated that the available information is insufficient to support a conclusion that the water quality in the Menominee River would not be impacted. Specifically, constant drawdown and restricted release to the Menominee River may result in adverse impacts to water quality.

Also, EPA understands that baseline water quality sampling has taken place at the site, but the wetlands application does not identify specific surface water quality monitoring locations.

[1] http://www.michigan.gov/documents/deq/qol-wrd-policy-invasive-species-decontamination_476846_7.pdf

MDEQ should require a baseline water quality assessment and monitoring for wetlands and streams surrounding the mine features to identify and mitigate any potential surface water impacts. Macroinvertebrate surveys would also help identify any potential stream and wetland degradation during mining and reclamation.

Mussel Impacts

During the May 2016 site visit, EPA visited the location of the discharge pipe at the Menominee River, and the applicant's consultant indicated that mussels were found at that location and will be relocated because adverse impacts to mussels would occur as a result of the work. The applicant should provide an analysis of potential impacts to mussels. The Corps recommends that a relocation plan for mussels in the Menominee River include a thorough review of the species' life history, native range, and habitat requirements, as well as a survey of a proposed relocation site to ensure that there are no invasive mussels are present. The relocation site survey should also show that any necessary host species and other habitat requirements for the native mussels' survival are present.

Monitoring Plan

The Corps notes, and EPA agrees, that a detailed monitoring plan for wetlands and streams potentially affected by groundwater drawdowns is warranted, including specifics on adaptive measures. The current monitoring plan in Appendix Q, which includes piezometer locations and groundwater monitoring, does not reasonably present the merits and the efficacy of measures like discharge of treated wastewater, another cut-off wall, grout injection, or increased groundwater recharge or surface flow in a watershed. The applicant should propose more specific impact thresholds, adaptive management, and mitigation measures within the wetland monitoring plan. The monitoring plan must also include impacts to streams.

Compensatory Mitigation

Under the CWA Section 404(b)(1) Guidelines, the agencies may only consider compensatory mitigation after an applicant has demonstrated avoidance and minimization of adverse aquatic resource impacts. Although the applicant has not demonstrated avoidance and minimization, EPA provides the following preliminary comments regarding the proposed mitigation.

To compensate for aquatic resource impacts, the public notice describes 146.3 acres of wetland preservation next to the Menominee River located in Sections

The 2008 Federal Mitigation Rule[2] (The Mitigation Rule) provides a sequence of preference for different types of compensatory mitigation. Preservation is considered the lowest priority method behind wetland restoration, creation, and enhancement because it does not meet the goal of no net loss of wetland functions and acres. The Corps asserts that the applicant's reasons for preservation over a more preferred mitigation method are not justified, and the applicant has not fully evaluated wetland restoration, creation, or enhancement opportunities.

[2] 40 C.F.R. § 230.93

During the May 2016 visit to the proposed preservation site, the agencies and the applicant located wetland areas that have been degraded by logging, roads, and invasive species. These areas may be eligible for enhancement credit as mitigation. There were also opportunities for wetland creation and stream mitigation.

To comply with the Mitigation Rule, the applicant must provide a complete mitigation plan with all of the required components[3], including the proposed mitigation method (e.g., preservation, enhancement, etc.), credit allocation based on wetland type and mitigation method, baseline assessments, performance standards, monitoring, long-term protection and management, financial assurances, etc.

Cultural Resources

The Corps letter to EPA included the following regarding cultural resources:

> Results of Phase I and Phase II surveys show that consultation with the State Historic Preservation Office (SHPO) and further coordination with all potentially-affected Tribes is necessary. There are multiple sites within the project area labeled eligible, potentially eligible, and unevaluated for listing on the National Register of Historic Places. The applicant's assertion that the proposed project would likely not impact potentially eligible or eligible resources, requires the SHPO's input through the consultation process and in coordination with all potentially-affected Tribes, and interested parties. The Menominee Indian Tribe of Wisconsin's (MITW) ancestral use of the Menominee River area is well known, and the MITW may have information necessary to complete a review of cultural and archeological impacts. It does not appear that MITW or other affected Tribes' archeologists participated in field surveys. In its February 16, 2016 letter to the MDEQ, the MITW objected to the applicant's conclusion regarding impacts, and asserted that additional burial sites and Traditional Cultural Properties are likely present on the site. In the [environmental impact assessment] EIA, the applicant also states that the proposed oxide tailings and waste rock management facility site requires further survey and no disturbance will occur until a survey is completed and results are Cultural Properties are likely present on the site. In the EIA, the applicant also states that the proposed oxide tailings and waste rock management facility site requires further survey and no disturbance will occur until a survey is completed and results are acceptable. (2016, p.3)

EPA agrees with the Corps' assertion that complete information is warranted to evaluate impacts to cultural resources and encourages MDEQ to coordinate with the SHPO, affected tribes, and interested parties to avoid any adverse impacts to these cultural resources.

[3] 40 CFR § 230.94(c)(2) through (c)(14)

Correspondence Management System

Control Number: AX-17-000-0885
Printing Date: October 31, 2016 05:38:20

Citizen Information

Citizen/Originator: **Boerner, William G.**
Organization: N/A
Address: 2131 Tori Lane, Marinette, WI 54143

Constituent: N/A
Committee: N/A **Sub-Committee:** N/A

Control Information

Control Number:	AX-17-000-0885	**Alternate Number:**	N/A
Status:	Pending	**Closed Date:**	N/A
Due Date:	Nov 14, 2016	**# of Extensions:**	0
Letter Date:	Oct 25, 2016	**Received Date:**	Oct 31, 2016
Addressee:	AD-Administrator	**Addressee Org:**	EPA
Contact Type:	LTR (Letter)	**Priority Code:**	Normal
Signature:	DX-Direct Reply (Alan)	**Signature Date:**	N/A

File Code: 404-141-02-01_141_b Controlled and Major Corr. Record copy of the offices of Division Directors and other personnel.

Subject: Request for Environmental Impact Study for Menominee County Michigan, Marinette County Wisconsin and the Menominee River as a principal waterway between Michigan and Wisconsin

Instructions: DX-Respond directly to this citizen's questions, statements, or concerns
Instruction Note: N/A
General Notes: N/A
CC: OCIR-ORO - Office of Regional Operations
OW - Office of Water -- Immediate Office

Lead Information

Lead Author: Darrel Harmon
Office: R5-IEO
Due Date: Nov 14, 2016
Assigned Date: Oct 31, 2016
Complete Date: N/A
Instruction: DX-Respond directly to this citizen's questions, statements, or concerns

Lead Assignments:

Assigner	Office	Assignee	Assigned Date	Due Date	Complete Date
Ken Labbe	OEX	R5	Oct 31, 2016	Nov 14, 2016	N/A
	Instruction: DX-Respond directly to this citizen's questions, statements, or concerns				
Gayvonne Gary	R5	Tywanna Greene	Oct 31, 2016	Nov 14, 2016	N/A
	Instruction: N/A				

Supporting Information

Correspondence Management System

Control Number: AX-17-000-0885
Printing Date: October 31, 2016 05:38:20

Supporting Author: N/A

Supporting Assignments:

Assigner	Office	Assignee	Assigned Date
Gayvonne Gary	R5	Elizabeth Rosado	Oct 31, 2016
Gayvonne Gary	R5	Kendall Cannon	Oct 31, 2016
Gayvonne Gary	R5	Tracy Jamison	Oct 31, 2016
Gayvonne Gary	R5	Andrea Breese	Oct 31, 2016
Gayvonne Gary	R5	Darrel Harmon	Oct 31, 2016
Gayvonne Gary	R5	Jesse McDaniel	Oct 31, 2016

History

Action By	Office	Action	Date
Ken Labbe	OEX	Assign R5 as lead office	Oct 31, 2016
Gayvonne Gary	R5	Accepted the group assignment	Oct 31, 2016
Gayvonne Gary	R5	Assign Tywanna Greene as lead	Oct 31, 2016
Gayvonne Gary	R5	Assign Elizabeth Rosado to support the control	Oct 31, 2016
Gayvonne Gary	R5	Assign Kendall Cannon to support the control	Oct 31, 2016
Gayvonne Gary	R5	Assign Tracy Jamison to support the control	Oct 31, 2016
Gayvonne Gary	R5	Assign Andrea Breese to support the control	Oct 31, 2016
Gayvonne Gary	R5	Assign Darrel Harmon to support the control	Oct 31, 2016
Gayvonne Gary	R5	Assign Jesse McDaniel to support the control	Oct 31, 2016
Darrel Harmon	R5-IEO	Take task	Oct 31, 2016

Comments

Commentator	Comment	Date
No Record Found.		

October 25, 2016

RECEIVED
2016 OCT 31 AM 11:16
OFFICE OF THE
EXECUTIVE SECRETARIAT

U.S. Environmental Protection Agency
Administrator Gina McCarthy
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

Re: Petition – Request for 'Environmental Impact Study' for Menominee County Michigan, Marinette County Wisconsin and the Menominee River as a principal waterway between the States of Michigan and Wisconsin, and the displacement and destruction of Native American Ancestral burial sites and artifacts.

Dear Administrator McCarthy:

Copies of petitions were sent to Governors Rick Snyder and Scott Walker containing 671 signatures asking for their offices to intervene in a matter of extreme importance to residents, property owners, tourists and others concerning the potentially harmful impact on the environment and economic health of the Counties of Marinette Wisconsin, Menominee Michigan and other municipalities dependent on drinking water from Lake Michigan and in particular the Bay of Green Bay. A previous petition containing over 2000 signatures of persons opposed to a mine and minerals processing operation at this location was sent to the Michigan Department of Environmental Quality in February 2016. Copies of this petition continue to be circulated in different localities including the Menominee Native American Tribal Reservation at Keshena, Wisconsin.

Aquila Resources, Inc., a Canadian mining exploration and materials processing company has applied for and is in the 'final' stage of being issued a mining and minerals processing permit by the State of Michigan's Department of Environmental Quality (DEQ) as discussed by them during a public forum held on October 6, 2016 and intend to begin operations as early as July, 2017 according to company officials.

Michigan does not require an independent environmental impact study as part of their permit requirement process in spite of extremely high risks of having a Volcanic Massive sulfide mine within 100 feet of the Menominee River and the fact Aquila Resources, Inc. intend to discharge up to 1 ½ million gallons of water daily most of which will contain sulfuric acid, cyanide, lead, and other chemicals and minerals used in the mining and processing of sulfide minerals from their open pit mine and materials processing operations into the Menominee River. (Michigan and Wisconsin share this river as a common border that empties into Lake Michigan's Bay of Green Bay 35 miles to the Southeast of the proposed mine site).

Additionally, much of the mine activity will be on Native American land, containing artifacts, ancient burial grounds and garden sites that are an important part of the culture and history of several Native American tribes that occupied settlements in this area for thousands of years.

I am requesting your approval, endorsement and help in our request for an independent impact study to be made by the Federal Environmental Protection Agency and the Department of Interior's Bureau of Land Management and Native American Artifacts concerning the environmental and social impact of the proposed mining and materials processing operation in Lake Township, Menominee County, Michigan.

Copies and/or versions of this letter are also being sent to other State and U.S. Government officials, however, copies of petitions may not be sent.

Respectfully,

William G. Boerner
On Behalf of Concerned Citizens
2131 Tori Ln.
Marinette, Wisconsin 54143

Encl: Copy of Petition Form

PETITION TO Chairman Menominee County Board of Commissioners, State of Michigan DEQ, DNR, Governor Rick Snyder, Chairman Marinette County Board, State of Wisconsin DNR and Governor Scott Walker: (Signature Solicitors-Please return all completed sheets to Concerned Citizens at _____.

We, the following, by signature attached hereto respectfully request that the various State of Michigan and Wisconsin 'elected officials' listed above arrange for an independent 'Environmental Impact Study' to be performed by the U.S. Environmental Protection Agency and the U.S. Department of Interior concerning the environmental, social and economic impact of the proposed Menominee River – Shaky Lakes mining operation (Referred to as 'The Back Forty Project' by Aquila Resources, Inc., the permits sponsor.) because of an exceptionally high risk of negatively polluting the Menominee River and severely altering the ecology of large portions of Menominee and Marinette Counties, and other population areas dependent on Lake Michigan for their water resource.

NAME PRINT	ADDRESS	CITY	STATE	SIGNATURE

NOTES:

Proposed Menominee River/Shaky Lakes Mine (Back Forty Project-Aquila Resources Inc.)

1. Menominee River is the Wisconsin/Michigan 'boundary' line separating the two states that begins at Lake Superior and empties into Lake Michigan (Bay of Green Bay) at the Cities of Marinette, Wisconsin and Menominee, Michigan. (Source of water supply for both cities.)
2. Mining operations will encompass both the excavation of millions of cubic yards of earth and separating minerals embedded in rock by grinding and using toxic chemicals such as cyanide for processing.
3. Distance between proposed mine site and the mouth of the river is approximately 34 statute miles.
4. Pristine and nationally known 'small mouth bass' fishing on the Menominee River is this area as the best in the entire United States. Also a prime source of regeneration of 'lake sturgeon'.
5. The Menominee Tribe of Native American Indians, was a well-established community at this exact same location for hundreds of years and ancestral garden mounds, burial sites and archeological artifacts are located throughout the area.
6. This mine site location is approximately ½ mile from the Shaky Lakes recreational area and will be severely impacted by mining operations and as a result the County will lose an important part of its tourist industry.
7. The underground water needed for plant and tree survival will be pumped during mine operations into the Menominee River up to 1.5 million gallons per day and will impact the forests for miles' around
8. Acid mine drainage and air born dust containing toxic materials will be wind driven thru out the area, as far as the wind will take it.
9. Dynamiting and the noise related to trucking, heavy machinery and rock crushing operations will impact the countryside for miles around.

Mining activity will include both the excavation and processing of minerals at the mining site which will encompass a footprint of approximately 585 acres of land, with a pit depth of 1225 feet 75 feet from the Menominee River.

EPA-R5-2017-011805_0000841

William Boerner
2131 Tori Ln
Marinette, WI 54143-3999

KINGSFORD MI 498

26 OCT 2016 PM 1 L

USA FOREVER

OCT 31 2016

U. S. Environmental Protection Agency
Administrator Gina McCarthy
1200 Pennsylvania Ave. NW
Washington, DC

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