

# Mining Action Group

Attn: Upper Peninsula Environmental Coalition  
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Dear Mr. Maki,

We are writing to express our concern that significant changes have taken place with regards to the Aquila Back Forty Mine site. The facility design schematics incorporated in the Back Forty Wetland Permit application (*submitted 11-17-2017*) are radically different from design schematics included in the [Back Forty Mining Permit](#) (*as issued 12-28-2016*). **These changes necessitate reconsideration and amendment under Part 632 of Act 451 of 1994**, which regulates all aspects of nonferrous metallic mining and beneficiation facilities, including siting, construction and environmental impacts:

**R 425.206 Amendment of permits.**

*Rule 206. (1) A mining permit may be amended at any time to address changes in the mining operation, natural or humanmade conditions, or technology, or to correct an oversight. An application for amendment of a mining permit shall be submitted on a form prescribed by the department, signed by the permittee or an authorized representative of the permittee. The application shall include revisions of any of the following that are affected by the changes:*

*(a) The environmental impact assessment.*

*(b) The mining, reclamation, and environmental protection plan.*

*(c) The contingency plan.*

*(d) Federal, state, and local permits and licenses that are anticipated to be required.*

*(e) Provisions for financial assurance required under R 425.301. (...)*

*(3) The department may require a permittee to submit an application for amendment of a mining permit if the department determines that the terms and conditions of the mining permit are not providing the intended reasonable protection of the environment, natural resources, or public health and safety.*

Figures 1 and 2 (attached) show that the Aquila Back Forty mine site has been extensively reorganized. These changes impact critical components of the operation, including but not limited to the mine's project boundary, the affected area, location of haul roads, oxide and flotation mine waste storage areas (TWRMF), sumps and contact water basins, "treatment and containment of earth materials" such as overburden stockpiles and ore stockpiles, beneficiation buildings, pipelines and utility corridors.

**Facility designs** are regulated under R 425.203 Mining Plan:

*R 201(1)(d), "shall contain a plan for the proposed mining operations." Facility design includes "(c) ...clear depiction on a map shall be shown on a map or maps of the mining area drawn to an appropriate scale on a topographic base and referenced to the nearest government-surveyed section or quarter-section lines. Other required information shall be presented, as appropriate, by cross-sections, photographs, documents, and engineering drawings." (ii) Area, volumes,*

and characteristics of overburden and waste rock to be excavated; plans and schedules for excavating; and locations and dimensions of stockpiles and final placement areas”, “(A) The location, size, and capacities of any artificial ponds, impoundments, dewatering systems, diversions, other water control structures, and treatment facilities”, “(xv) Buildings and other facilities or structures”, “(xviii) Roads, railroads, docks, piers, and other transportation infrastructure”, “(B) A description and the location of all proposed permanent soil erosion and sediment control measures” etcetera.

Some of the proposed changes to infrastructure include the relocation of hazardous material (reactive mine waste) and impervious structures (tailings basins); these revisions may necessitate groundwater monitoring “at points where mining activities have a reasonable potential for measurable impact on surface water or groundwater, taking into consideration the following: (A) Proximity to the mining activity. (B) The potential for diffusion and dispersion...” (R 425.203).

These are significant changes. For example, the Tailings and Waste Rock Management Facilities (TWRMF) have been resized and relocated. The apparent changes involve at least one *permanent, impervious TWRMF structure*, which would become a permanent feature of the landscape with long term leachate collection and treatment concerns, with potential impacts on surface water and groundwater.

Tailings storage is explicitly regulated under Part 632: “*design, construction, and operation of stockpiles and storage or disposal facilities for ore, waste rock, overburden, and tailings.*” The TWRMF sites are further regulated by Permit Conditions and Special Conditions in the Aquila Back Forty Mine Permit. For example, **MP012016 Special Condition “F. Tailings and Waste Rock Management Facilities”** states:

8. Upon approval by the MDEQ, the plan and specifications for the TWRMF and the operations plan for the TWRMF, including any MDEQ-approved modifications thereto, shall become incorporated into and enforceable under the permit issued pursuant to Part 632 of the NREPA. Final designs and construction specifications, as well as any modifications of, changes to, or deviations from the approved plans and specifications or operations plan, require approval by the MDEQ prior to construction of the TWRMF's.

It is apparent that the **design** (“plan and specifications”) of the Back Forty mine site, as presented in Aquila’s Wetland permit application, is no longer consistent with the issued permit (MP012016). According to MP012016 **Special Condition “C. Coverage”**, “*Unless approved by MDEQ pursuant to an amendment to the permit, the permittee shall conduct mining operations in accordance with the approved (...) Mining Plan, Treatment and Containment Plan, Contingency Plan, and Reclamation Plan submitted in the Permit Application; and the tables, illustrations, figures. Technical reports, calculations, and other data accompanying and supporting those documents:*

Permit Conditions  
Mining Permit No. MP 01 2016

**C. Coverage**

1. The Back Forty Project consists of four basic operations: open pit mine, beneficiation of ore, tailings disposal, and water treatment.
2. This Mining Permit governs construction, operation, closure, postclosure monitoring, reclamation, and any necessary remediation of the Back Forty Project pit, mill site, Tailings and Waste Rock Management Facility (TWRMF), and other project facilities. However, this Mining Permit shall not supersede or contravene any provisions on remediation in other applicable Parts of the NREPA.
3. Surface facilities consist of milling facilities; temporary storage for ore; water storage, treatment and discharge; tailings and waste rock storage and disposal; and other ancillary operations as outlined in the Mining Plan.
4. Unless approved by the MDEQ pursuant to an amendment to the permit, the permittee shall conduct mining operations in accordance with the approved Environmental Monitoring Plan for operations and postclosure, Mining Plan, Treatment and Containment Plan, Contingency Plan, and Reclamation Plan submitted in the Permit Application; and the tables, illustrations, figures, technical reports, calculations, and other data accompanying and supporting those documents.

The new mine site design plan for the Back Forty – illustrated in the Back Forty Wetland permit application ("1 R-Wetland Permit Application Nov 2017 reduced Sections 1-4.pdf" page 40) – is clearly integral to a comprehensive review of the pending Wetland permit application. The revised site design is likely to have significant impacts on surficial hydrology and hazard mitigation, and financial assurances should be reviewed. **We are especially alarmed by the relocation of one TWRMF, to a site roughly 1 mile west of the permitted location. If the new facility schematic is to be believed, Aquila's reactive tailings – one of the most risky aspects of a sulfide mining operation – will now be stored approximately 1,000 feet from the bank of the Menominee River.**

The asserted design changes to the tailings basins, in particular, may have significant bearing on water resources and the Wetland permit application pending review. Such facility design concerns are outside the scope of the Wetland permit and need to be addressed in an amendment review of the mining permit.

Individually and collectively, the design modifications constitute a *Significant Change*, and are therefore subject to review through the Part 632 amendment procedure. Unless the redesign of the Back Forty mine site is subjected to a rigorous Part 632 amendment review, there can be no assurance that the Back Forty project will not "pollute, impair, or destroy the air, water or other natural resources or the public trust in these resources" as required by law.

We ask that the DEQ act swiftly, requiring an amendment of the Back 40 mining permit, addressing all "anticipated changes in the mining operation, including, if applicable, amendments to the environmental impact assessment and to the mining, reclamation, and environmental protection plan." We request that the DEQ require this amendment *before considering the company's Wetland permit*, since it is based upon an unpermitted facility design.

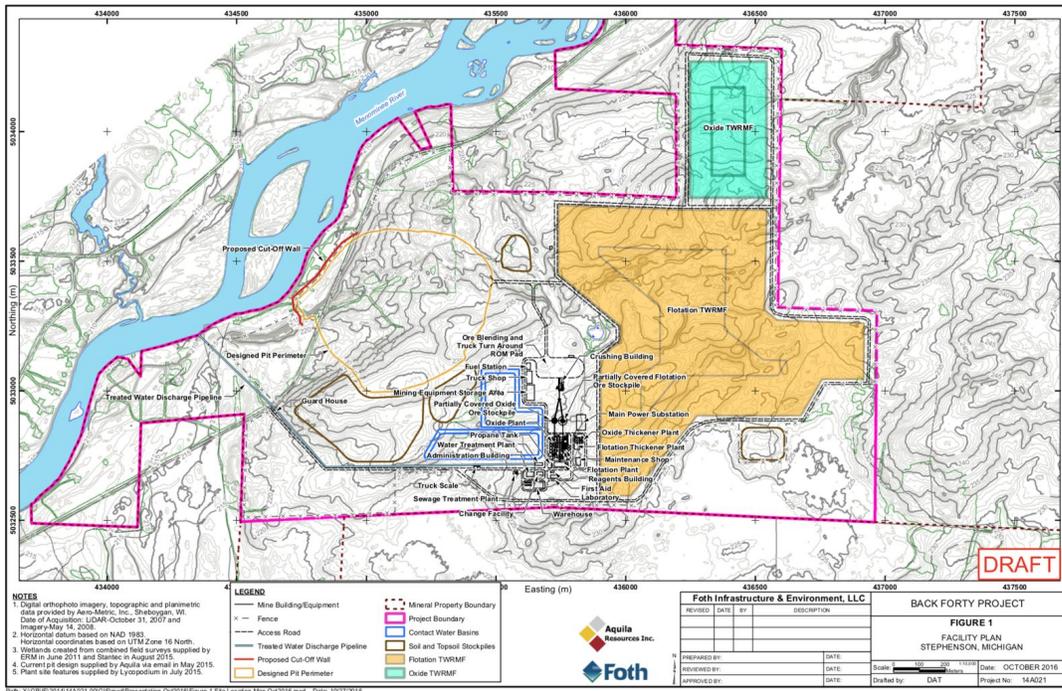
***R 324.63207 Mining permit; duration; termination; revocation; transfer; amendment.***

*(6) A mining permit may be amended as follows: (a) The permittee may submit to the department a request to amend the mining permit to address anticipated changes in the mining operation, including, if applicable, amendments to the environmental impact assessment and to the mining, reclamation, and environmental protection plan. (b) The department may require a mining permit to be amended if the department determines that the terms and conditions of the mining permit are not providing the intended reasonable protection of the environment, natural resources, or public health and safety.*

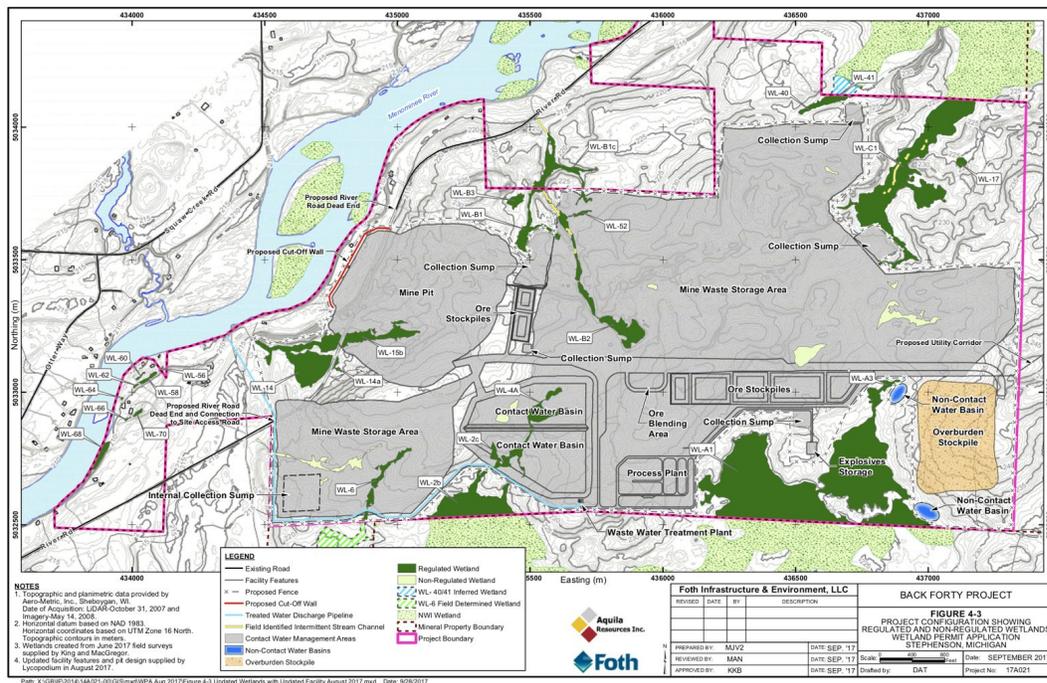
Please see attached images, illustrating the extent of the mining facility redesign.

We request a timely response to this matter. Thank for your consideration.

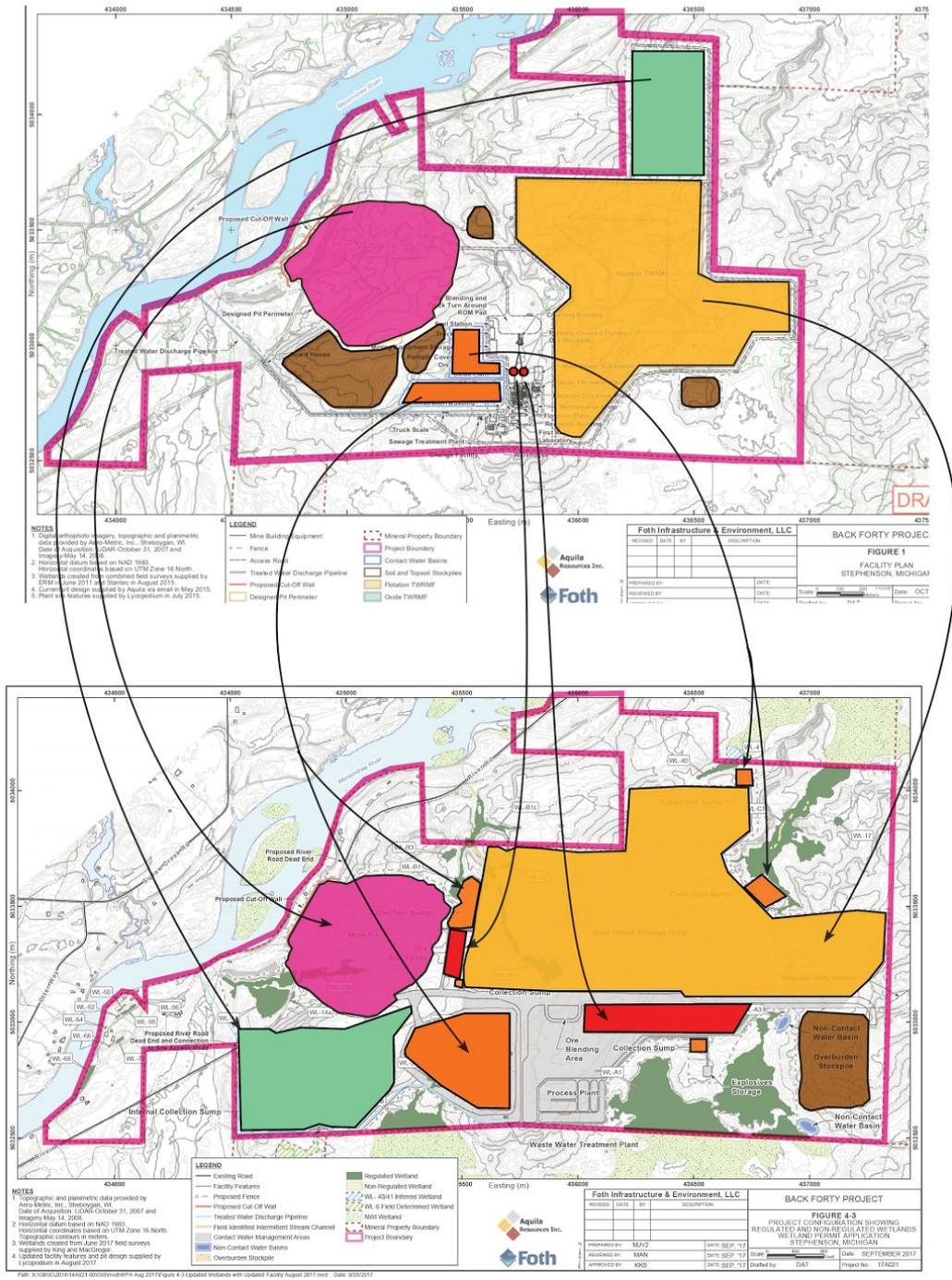
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**Figure 1: Facility Plan, October 2016.** Source: Aquila Back Forty Mine permit application. "Plant site features supplied by Lycopodium in July 2015." Aquila submitted this facility plan with its Mining permit application in November 2015.



**Figure 2: Facility Plan, November 2017.** Back Forty Wetland permit application ("1 R-Wetland Permit Application Nov 2017 reduced Sections 1-4.pdf" page 40). According to the map key, "Updated facility features and pit design supplied by Lycopodium in August 2017."



**Figure 3: Facility Configuration design has significantly changed. Compare: Oxide Tailings TWRMF (green), Flotation Tailings TWRMF (yellow), Ore Stockpiles (red), Collection Sumps and Contact Water Basins (orange), Soil and Overburden Stockpiles (brown), Project Fenceline and Mine Pit (magenta).**