May 7, 2014

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DANE COUNTY ZONING & LAND REGULATION COMMITTEE
City-County Building
Madison, WI

Dear Committee members,

I request that this statement be included in the hearing record regarding CUP #2260 mineral extraction.

I am writing to request that that the Committee **deny CUP #2260** because it does not meet the standards of Dane County zoning laws. The statutes of concern are Chapter 74.112 Subsurface water and wetland protection as well as Chapter 74.113 Non-metallic mining.

The permit should be denied because it does not satisfy criteria 1 (detriment to public, health, safety, comfort or welfare) and criteria 2 (impairment and diminishment of uses, values and enjoyment of other property in the neighborhood). (Section 10.255(2)(h).

The effect of the proposed use on water or air pollution, soil erosion and rare of irreplaceable natural resources (Additional Factor 10) (S. 10.123(3)(a)) – is a critical concern.

In my professional opinion as an ecologist (see previous communications on this CUP for my credentials), the proposed mine poses significant risk and has significant potential to damage the immediately adjacent Albion prairie and Albion wetlands, and the wildlife that resides therein.

The importance of the wetland has been identified in the Albion town plan as part of a resource protection corridor that contains both wetland plants and wildlife and drains into Lake Koshkonong (draft 12/19/13, Dane County Planning and Development). Such corridors are critical to providing transit routes for wildlife as well as maintaining the quality of the water downstream.

The fundamental question is whether the proposed mine poses risk to the adjacent natural resources and the public values that emanate from these resources.

There are at least three types of risk:

1. Direct disturbance to the habitat.
2. Hydrologic disruption – reductions in the quantity of water that flows to the wetlands.

3. Contamination – release of damaging chemicals, present in the subsurface rock, or in the mining operation, dust or other contaminants

Each of these risks is present at levels that seem to violate the stated criteria for a CUP.

Direct Disturbance

The consulting firm (Stantec Consulting Services) hired by Yahara Minerals identified two wetland areas within the study area (letter to Tim Geohegan, April 24, 2014). These in fact are not two distinct wetlands – they are the edges of the protected resource corridor and are joined by a forested habitat that is part of one of the widest sections of the corridor. The natural drainage pattern of the site provides water to the corridor through both of these wetland interfaces (Stantec Figure 2). The forest and the wetland together provide a rich habitat that is much more productive and diverse than either component would provide alone.

As noted in my previous letters, Bald Eagles have been observed in the locality. The trees are essential roosting places for the eagles and if the eagles are nesting in the area, it would be in the forest. Destruction of an eagle nest is a felony under federal law.

The site map provided by Stantec shows that the forest edge is artificial and straight due to previous clearing of the site now proposed to be quarried. The previous clearing has already reduced the wetland buffer. The “revised boundary” proposed by Yahara includes the entire forest (March 21 letter to Pam Andros, Dane County Planning and Zoning). If the remaining forest is cleared as part of the mining operation, it will damage the corridor and isolate the remaining wetlands.

The boundary of the site under the proposed CUP has been artificially and irregularly expanded to specifically include the entire forest. This suggests that Yahara is planning to cut or otherwise damage the forest, thus destroying that habitat.

At a minimum, if the CUP is granted, the “revised boundary” should further be revised not to extend further south than the section line and no further west than the existing boundary. That would exclude the forest.

The revised boundary includes the wetland on the northwest corner of the property. Although Stantec identifies it as “farmed wetland”, their Figure 2 clearly identifies it as wetland. It is not clear whether or how this wetland would be excluded from the proposed project as long as it is part of the permitted area.

Further, the southern boundary of the proposed quarry site is extremely close to the wetland. There is no scientific justification that a 75 foot buffer or even a 400 foot buffer will be sufficient to protect the wetland.

Hydrologic disruption

The drainage pattern of the site is identified in Stantec's Figure 2. Presently the wetland is replenished, in part, from the site, which has a slope exceeding 20% in some parts.

The report submitted for the record by HydroGeoLogic Consulting further identifies the hydrological interconnectedness of the site and the wetlands through subsurface ground water. Their report determines that the water table below the site is potentially within the depth of the mine (and that the application materials greatly overstate the depth of the water table). Of course, the water table is at the surface in the wetlands, thus there is a gradient of decreasing depth of the water table as one approaches the site boundaries. This raises the possibility of direct damage to the water table, which could impact the wells of neighbors in addition to the wetland complex.

The HydroGeoLogic report identifies the importance of both groundwater and surface water recharge from the site to the adjacent wetland corridor. It further identifies the potential impacts from quarry operations that could reduce water availability to both wetlands and wells.

Contamination

Contamination of several types is possible through water and air. The HydroGeoLogic report raises the possibility of arsenic and sulfides present in the sandstone that underlies the limestone outcropping on the site. The report discusses how mining operations could release these toxic substances and provide potential contamination of ground and surface waters.

The mining operation itself, including extensive blasting and crushing operations, offers an additional set of contaminants that can be transported by air and water.

The mining operation creates dust that includes respirable crystalline silica (extremely small particles of sand), which has been identified as a carcinogen by the International Agency for Research on Cancer (IARC). The federal Occupational Safety and Health Administration (OSHA) recently held hearings on proposed regulations on occupational silica. If the mine is approved, there should be regular testing of workers as well as neighbors.

The mitigative measures proposed by Yahara are primarily focused on minimizing erosion. The Stantec report notes that for water running off the site, after solids settle out in proposed containment basins, water will be "discharged to existing drainage swales that drain to W1" (wetland 1). Thus any chemically contaminated water will go straight into the wetlands.

Although monitoring is proposed by Yahara, it is not clear who will do the monitoring and what levels of contamination would cause shutdown of operations.

Summary

The modifications to the plan of operations proposed by Yahara Minerals are minimal and are insufficient to reduce the risk to the nearby residents and habitat. There is a basic incompatibility of an industrial mining operation adjacent to a protected wetland and resource protection corridor.

The risks to the wetlands, wildlife, including Bald Eagle and to the human residents that benefit from them are very likely to violate at least the first two of the standards for granting a conditional use permit. The quarry is very likely to substantially impair the Albion wetland and has the potential to damage the protection corridor.

The burden of proof should be on the applicants for the permit. Unless they can show to "courtroom standards" that their proposed use will not violate these standards, it should be the responsibility of this committee to deny the permit.

Thank you very much for your consideration.

David

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