



WASHINGTON CONSERVATION DISTRICT

1380 W FRONTAGE RD
HIGHWAY 36
STILLWATER, MN 55082

651-275-1136 | PHONE |
651-275-1254 | FAX |
WWW.MNWCD.ORG

May 14, 2012

Anne Hurlburt, Administrator
City of Scandia
14727- 209th St N
Scandia, MN 55073



RE: Zavoral Mining and Reclamation Project EIS

Dear Ms. Hurlburt:

For the duration of the Zavoral Mining and Reclamation Project Environmental Impact Statement (EIS) process, the Washington Conservation District (WCD) has been part of the advisory committee. For most of this time, I have served as the WCD's representative, although other staff members have been consulted based on the issues brought before the committee. For the most part, our review and comments have related to the natural resources that fall under our mission – the conservation and protection of soil and water resources. For an EIS project, these concerns fall into the following sections: wetlands, surface water resources, soils, and natural plant communities. Other issues, such as noise, traffic, air quality, and real estate values, will not be commented on by this agency.

The following comments will reiterate some of the points that were raised during the advisory committee meetings, but also provide comment on recent documents.

Wetlands. The WCD assists the City of Scandia with processing wetland impact applications, including the review of wetland delineations and replacement plans. During the EIS process, the site was reviewed for the presence of wetlands by both the EIS preparation team and a private firm hired by the applicant.

A few isolated areas with hydrophytic vegetation were identified within the previously mined portion of the site. Based on observations of conditions and the application of accepted wetland delineation and evaluation protocols, the wetland experts involved concurred that these isolated basins fail to meet the criteria of wetlands regulated by current state or federal rules. Our determination did not include a formal approval to fill these areas; such an approval may be granted by the City as a condition of the larger project approval. The reclamation plan for the project includes the construction of additional isolated depressions, similar to those that currently exist. These basins retard the flow off-site of the surface water, and allow it to infiltrate into the sub-surface groundwater levels, feeding the seeps and lower groundwater pools.

A second set of wetlands lie along the bottom of the ravines, outside of the proposed mining limits. These wetlands are naturally occurring wetlands, fed by a combination of groundwater and cliff-face seeps and surface runoff. These wetlands are recognized as having special hydrology, with a set of plant species that correlate with that hydrology. The groundwater well pumping tests did not indicate that the seeps or groundwater flow would be interrupted by the pumping activities proposed, to the extent of depriving the hydrology that maintains these wetland conditions. The wetland delineation of this set of wetlands marked the location of current seeps, establishing a base-line figure that can be consulted in the future to

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determine significant changes. **If the project is approved, we recommend that conditions be attached which require frequent monitoring of the seeps and base flow, with immediate action required if the mining activities cause a reduced flow.** Seasonal variations are expected, as are longer term climatic changes. Presumably, if pumping diverts the seeps' water supply, cessation of pumping will see the seeps start again. The monitoring reports should be submitted to the full Technical Evaluation Panel, for review and consensus by all the overseeing wetland regulators. To best accommodate this monitoring, we suggest that the time period of the mining operation be extended rather than compressed or accelerated. Long term reduction in the volume or rate of seepage may result in loss of wetland area and quality. That loss would be contrary to the Minnesota Wetland Conservation Act and other wetland regulations. Rather than allowing replacement for such wetland impacts, I would recommend restoration, meaning the removal or cessation of the action which caused the loss of wetland.

Water Resources: The reclamation plan appears to contour the site in such a way that surface runoff and associated sediment will not flow overland to the creeks. The reclamation plan also indicates a staging of the mining activities, interspersed with the reclamation activities. Again, a compressed time frame may be contrary to the expectations of site stabilization. More comments will be given in the natural resources section, below.

The WCD, in partnership with the Carnelian-Marine on St. Croix Watershed District and cooperation with the landowner and City, has established a stream monitoring site downstream of the proposed site. We have been collecting baseline stream flow and water quality data since 2010, and are open to continuing or expanding that monitoring in the future.

Soils: Erosion control and prevention of off-site sedimentation is important, and the proposal appears to address this. For projects such as this, a Storm Water Pollution Prevention Plan and NPDES permit will be needed, in addition to the local permits from Carnelian Marine on St. Croix Watershed District. The WCD can assist the City in both review of those documents, and on-going site monitoring for compliance. The proposal appears to direct all cut surfaces to face the interior of the project site, minimizing impacts off site, but dust control and prevention of tracking onto public roads is needed.

Natural Plant Communities and Reclamation Plan: The reclamation plan offers to install prairie plant communities on most of the disturbed areas. Prairies were present historically, in the form of scattered openings in this part of the county. The prairie plant community is also well suited to the conditions that are expected to exist after the mining is finished. The roots will anchor the soil, and both expedite the infiltration needed to supply the seeps but also increase transpiration.

The reclamation plan (Appendix A.2) provides two alternatives for soil amendments for the post-mining reclamation. Of the two, we would recommend the use of an engineered soil, as is proposed as "Topsoil Requirements for Approach 1." This approach has been used successfully in many areas, and has been found to decrease the weed dominance on large sites. We understand this approach is not yet adopted under the current City ordinances. The WCD can work with the City on considering this alternative approach for this, and other, projects.

The Forest Management Plan (Appendix A.3) adequately describes the plant communities seen on our visits to the site. The native forest communities are ranked as good to moderate quality, with the deficiencies being related to the presence of invasive species, such as buckthorn and earthworms. Several of the tree species are vulnerable to their specific threats, such as oak wilt, emerald ash borer, and the butternut canker. These threats are valid throughout the county, not limited to this site. Approval conditions can be placed on the project to minimize the spread of these threats, such as seasonal timing of

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impacts to oaks. Close attention must be given to control invasions of noxious weeds, which may easily be imported from other gravel pits via the trucks.

The Reclamation Plan and Forest Management Plan address the general issues on the property. If the proposal is approved, the city may request additional details as a condition of such approval. In particular, the Plan could address how pioneer woody species should be managed in the reclamation pine forest, such as aspen, green ash or oaks. The Plan could also describe how buckthorn or reed canarygrass (or other invasive species) will be managed in the native forest areas.

Overall, we believe that the EIS has identified and addressed the potential impacts to the wetlands, surface water resources, and natural plant communities to enable the City's decision on these areas. Throughout this process, the applicant has responded by modifying the proposal to lessen potential impacts in these areas. We continue to encourage the protection and preservation of intact natural forest communities, such as the several acres of natural woodland being proposed for mining on this site, but acknowledge that in the absence of any Rules or applicable ordinances that apply to their removal, preservation is voluntary.

Please feel free to contact us if you would like clarification on any of these comments, or to involve us if the project progresses.

Sincerely,



Jyneen Thatcher
Natural Resource Specialist