Tiller Mine EIS Comments
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Comments on Executive Summary

- Conflict of Interest: The RGU for the Zavoral Mine EIS is the City of Scandia, which also stands to gain considerable income from taxes (over $72,000) if the project should go forward. This is an inherent conflict of interest. The City is not in a position to make an objective decision about the mining project because of the potential for significant income, and therefore should never have been the RGU.

- Traffic: According to the Table 2 in the Executive Summary and pp ES 24 to ES 27, operation of the mine under Alternatives 1, 3, or 3A would generate a huge increase in truck traffic, with well over 300 - 600 trips under Alt 1, and as many as 736 trips under Alt 3A. This amounts to one trip every 1 to two minutes (Alt 1), or even more frequently under Alt 3A. This increase in truck traffic on the already busy State Highways 95 or 97 is not acceptable. I don't believe the claim that the roads can handle such an increase. In fact the EIS acknowledges (p. ES-27) that area residents may currently be using other routes to avoid truck traffic on TH 95 and TH97. This statement implicitly recognizes that the existing amount of truck traffic on these roads is too high, and discredits the idea that additional truck traffic at the scale envisioned for the Zavoral Mine can be accommodated without significantly adverse effects on local traffic and safety.

- Furthermore, the assumption that residents may chose to avoid the intersection by traveling on other roads is almost absurd in its Pollyanna naivete, as there really is only one alternate route that is available for local traffic that will bypass the gravel mine, and it has limited utility for most local trips. That route involves using County Rd 52, or Oakhill North, to Scandia from TH95 south of TH97 and north of Cty Rd 53 (Quinnell Ave). If someone is traveling North from Copas or along TH95, and plans to continue northbound, they are most likely to be unaware of this route, or be willing to take it to avoid truck traffic. Only those that are intentionally going to Scandia or beyond (e.g. westward on TH 97) will take Oakhill N, if they know about it. On top of it, residents along Quinnell Avenue that are northbound will find themselves exiting Quinnell just before the gravel mine entrance, where all the truck traffic is coming and going (1 trip every 1 to 2 minutes) and could find entering the highway difficult if not dangerous. I predict that a stoplight will be needed at the Zavoral mine entrance, which would impede the normal flow of traffic on TH 95. Finally, I feel that the additional truck traffic will be a significant safety risk

on both TH95 and TH97, and in the intersection between the two.

- Recreation traffic: The EIS states (p. ES-27) that "The trunk highways have sufficient reserve capacity to handle the change in traffic volume for seasonal traffic. Periods of congestion may be experienced during peak weekend travel times or on a holiday weekend, with or without the Project." I don't believe this statement, nor do I find it ethical to claim that there will be an increase in congestion with or without the project. There has been an increase in traffic over the last 20 years as more people chose to commute to the Twin Cities or to Stillwater. While periods of congestion are rare, typically occurring only during special events, the volume of traffic during morning and evening commute periods is now substantial. Adding in 300 to 600 trips of semi-trucks laden with rock will add significantly to congestion, and create far more periods of congestion. To suggest that the increase will be similar with or without the project is disingenuous, at least, and borders on a downright falsification. Finally, the previous arguments are mostly directed at Alternatives 1 and 3; the increases under Alternative 3A would be even greater, so it goes without saying that traffic congestion would be even greater too.

Noise: This is the likely to be the biggest problem to come from operation of the mine. It is likely to affect the most people by the biggest amount and be the least able to be mitigated for.

- Longtime residents remember the noise from the previous operation of the gravel mine. It could be heard as a screeching, scraping, grating sound that traveled up and down the river valley, and started early enough in the morning to disturb people's sleep. It also intruded on the quiet and serenity that makes the St. Croix River a Scenic Waterway. Remember that sounds travels on water, so the sound of the mine is actually amplified in the river valley rather than dampened. Whether noise standards would be exceeded or not (p. ES-32) is moot. The standards are unlikely to be applicable to a peaceful and quiet, Scenic Waterway, where expectations of quiet and peacefulness are high. The noise will be new, and audible, and will represent a significant diminishment of the peace and quiet of the valley. It will create a cumulative effect, from operation of the mine and the additional truck traffic, that will compromise the outstanding scenic values of the Lower St. Croix National Scenic Riverway.

- Operation of the mine from 7 AM to 7 PM, even with 10 hr days, represents a continuous negative impact that will not go away and that will begin early in the day. As stated (ES-32), "Noise levels when gravel hauling is occurring would be noticeably higher than during low noise traffic conditions." This represents a significant negative impact. Hearing the mining and hauling noise from dawn till dusk will be wearing and will make it difficult to relax in the evening following work.

- The statement that "If the Zavoral Site were not permitted, it would not result in lower noise impacts to receptors along the haul route because the aggregate hauling would still occur to the Scandia Mine from other locations." is a specious argument. There is no expectation that the no-build alternative should create a more quiet condition than today's baseline, as nice as that would be. The use of a double-negative in this context attempts to obfuscate the fact that the additional noise from Alternatives 1, 3, and 3A will be very significant. It does, however, point to current noise levels as already needing abatement, which adds to the detrimental effect of substantial new noise expected from this project.

- The increase in noise in Alterative 3A would even be greater. Neither should be allowed.

Chapter 1.

p. 1-4. The statement that "Economically viable deposits of sand and gravel occur where they were deposited by nature, whether the location is convenient or not." is a snarky, defensive, jab implying that sand and gravel mining should take priority over objections surrounding negative impacts to nearby residents. It is unprofessional and has no place in a document such as this. Even if it's a quote from Southwick et al (2000).

Chapter 4, Section 4.6. Water Resources

Under Water Quality Impact Analysis, Sec 4.6.1.2, the EIS states that there would be reductions in 2, 10, and 100 yr peak flows during mining, with reductions as high as 72% for Zavoral Creek, and zero flow occurring for the 2 and 10 year flows. While zero flow may sound like good management to control sediment transport resulting from mining, dewatering a stream is not generally thought to be good. Stream response to storms that is unaffected by upstream land use tends to be beneficial as it promotes habitat complexity, provides bed mobility to flush out fine sediment or accumulated organic detritus. If the flow changes to the creeks really are as severe as indicated, these creeks could see a reduction in food quality and habitat for native aquatic biota. This could be a negative impact.

Figures 26 and 27 show a significant delta at the mouth of Zavoral Creek that is most likely the result of years of sediment transport from that creek, possibly affected primarily by major events. One such event is believed, locally, to have occurred during previous operations of the mine, although no data are known to support this belief. Nonetheless, the overall result is an intrusion of gravel and sediment into the St. Croix and the formation of the delta as indicated. Local boat operators are familiar with this location because the mouth of the creek and the sediment deposited there form a sill, causing water upstream to deepen a bit and providing a slow moving depositional zone on the upstream end. Directly at the sill there is frequently a small riffle extending about 10 to 20 feet from shore, with an eddy and additional depositional zone in the ensuing tailrace of the riffle. This riffle

is one of the few places in the river with a predominantly gravel substrate rather than sandy bed, which may have habitat implications for certain riverine species. The eddy tends to be a more depositional environment, but does remain relatively deep due to the higher velocity flows entering from above. During low flow periods in late summer, this riffle-eddy complex formed by the delta from Zavoral Creek can become part of the chief navigational channel for motor boats going upstream or downstream and attempting to avoid grounding on the shallow sandbars that tend to form in mid-channel. Fishing can be quite good on both the upstream and downstream portions of the delta, as it provides complex habitat with cool water and probably macroinvertebrate drift entering the river from the creek. In the past, there were small but catchable trout in Zavoral Creek. Whether there are now was not addressed in the EIS that I could find.

Operation of the mine, and in particular changes to the flow regime in Zavoral Creek as indicated, could negatively impact the natural sediment transport processes in the stream that help maintain the delta. Whether these processes were altered by previous mine operations most likely cannot be determined at this point in time, but the delta and riffle have come to be a well known geomorphic feature in the river. Mining-related changes in discharge and sediment transport processes in Zavoral Creek should not be allowed to significantly reduce or add to flow and sediment transport in the creek.