

CITY OF SCANDIA

RECORD OF DECISION

IN THE MATTER OF THE DETERMINATION ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE ZAVORAL MINE AND RECLAMATION PROJECT SCANDIA, MINNESOTA

FINDINGS OF FACT CONCLUSIONS OF LAW AND ORDER

The matter captioned above came before the City of Scandia (“the City”) for decision on September 25, 2012. After affording all interested parties the opportunity to present information orally and in writing during the EIS process, after reviewing the Draft and Final Environmental Impact Statements, and considering all of the evidence in the records, files and proceedings herein, the Scandia City Council, being fully advised, hereby makes the following Findings of Fact, Conclusions of Law, and Order:

FINDINGS OF FACT

I. Project Description

1. The Tiller Corporation, Inc. (Tiller) proposes to operate a gravel mine on the site of a dormant gravel mine in the City. The 114-acre site (Zavoral Site) is located along St. Croix Trail North (State Trunk Highway [TH] 95), a State Scenic Byway, near its intersection with TH 97. Tiller proposes to mine and reclaim 64 acres of the 114-acre Zavoral Site (location shown on Figure 1, attached). Of the 64 acres proposed for mining and reclamation, 55 acres are located on portions of the site that were previously disturbed by mining. A previously un-mined 9-acre area is also included in the area proposed for mining. The site is located along the Lower St. Croix National Scenic Riverway as designated under the Wild and Scenic Rivers Act (Public Law 92-542 as amended; 16 U.S.C. 1271-1287) and Minnesota Statute 103F.351. Portions of the Zavoral Site are located within the St. Croix River District Zone and scenic easement. Tiller proposes to conduct reclamation activities on about 4 acres of the previously mined area located within the St. Croix River District Zone and scenic easement. The area proposed for mining is located outside the St. Croix River District and scenic easement.

Tiller plans to extract gravel at the Zavoral Site, load it into trucks and transport it. The mined material would be transported primarily to the Scandia Mine site located between Lofton Avenue and Manning Trail, just north of 218th Street in the City of Scandia. Some of the material mined at the Zavoral Site may also be transported directly to construction project sites or other facilities for use and/or processing. The material from the Zavoral Site would be combined with material mined at the Scandia Mine to meet the specified gradations of marketable aggregate produced at the Scandia Mine. Tiller plans to use the material from the Zavoral Site to replace

material currently transported to the Scandia Mine from Franconia Township, Chisago County, Minnesota, and the Osceola, Wisconsin area.

- The following permits and approvals would be required for the proposed project:

JURISDICTION	PERMITS AND APPROVALS
<i>State of Minnesota</i>	
Minnesota Department Of Transportation	<ul style="list-style-type: none"> • Access Permit (TP 1721)
Minnesota Pollution Control Agency	<ul style="list-style-type: none"> • NPDES (National Pollution Discharge Elimination System)/SDS (State Disposal System) general permit for stormwater discharges association with construction activities (MNR100001) • NPDES/SDS general permit for construction sand and gravel facilities (MNG490000) • Air Emissions Permit
Minnesota Department of Natural Resources	<ul style="list-style-type: none"> • Endangered Species Take Permit (if Butternut trees are reclassified from Special Concern to Endangered)
<i>Local Government</i>	
City of Scandia	<ul style="list-style-type: none"> • Conditional Use Permit – Mining Operation • Annual Operating Permit
Carnelian-Marine St. Croix Watershed District	<ul style="list-style-type: none"> • Permit for Stormwater Management

II. History and Need for an EIS

- Tiller submitted an application for a Conditional Use Permit (CUP) to the City on November 25, 2008 for the Zavoral Mine and Reclamation Project. Tiller submitted an Environmental Assessment Worksheet (EAW) with the CUP application, to meet the requirements of the City’s Mining Ordinance (Ordinance No. 103) and State rules. Tiller prepared the EAW per Minn. R.4410.4300. The City was the Responsible Government Unit (RGU) for the EAW.
- The site is located within the Agriculture (AG) Zoning District in the City’s 2020 Comprehensive Plan (adopted October 20, 1988), and the Zoning Map and Development Code that were consistent with the 2020 Comprehensive Plan. These were the current Comprehensive Plan and zoning regulations at the time that Tiller submitted the CUP application.
- On March 3, 2009, the Scandia City Council approved the Findings of Fact and Record of Decision for the Zavoral Mine and Reclamation Project EAW that concluded that an Environmental Impact Statement (EIS) was needed to determine the project’s potential for significant environmental impacts.

6. The EAW Record of Decision noted that the City received a large number of comment letters from agencies and individuals that identified over a dozen issues that were not adequately addressed in the EAW. Many of the identified issues related to the project's location and potential impacts to the St. Croix River, National Scenic Riverway, and other sensitive water and natural resources in the area near the Zavoral Site.
7. The Notice of Decision for the EAW was published in the *EQB Monitor* on March 23, 2009. The notice identified the City as the RGU for the EIS for the Zavoral Mine and Reclamation Project, pursuant to Minn. R. 4410.0500, Subpart 1.
8. On April 21, 2009, the City approved a final Scoping Decision Document (SDD) for the EIS. In August 2009, the City hired a consultant to complete the EIS. The City published a Notice of Intent to Prepare the EIS in the *EQB Monitor* on September 7, 2009. The City provided the 2008 EAW, SDD, and all other related project documents to the public on its website. The City established a Project Advisory Committee (PAC) for the project in December, 2009.
9. Tiller originally proposed to use the existing Zavoral Site Well to obtain water for processing and gravel washing activities. The SDD identified potential ground water impacts as an issue for the EIS, and included analyses of the project's proposed water use and potential impacts. As the EIS analyses progressed, the Minnesota DNR identified that the water appropriation permit for the existing well on the site that Tiller proposed to use for processing and washing had expired. The existing multi-aquifer well had been used as part of the previous mining activities on the site. The existing well accesses the Franconia-Ironton-Galesville Aquifer and the Mt. Simon Aquifer, to a total depth of 648 feet. The 1989 Minnesota Ground Water Act strictly limits new water use in the Mt. Simon-Hinckley Aquifer in metropolitan counties. Based on this information Tiller conducted additional analyses, and determined that using the existing well on the site at the levels required for processing and washing activities would require a significant investment to address Minnesota DNR water appropriation permit requirements. Tiller also determined that the material mined at the Zavoral site could be utilized without processing at the Zavoral site. Instead, the material could be transported to the Scandia Mine, processed if needed, and combined with materials at that site to meet specifications, or transported directly to construction sites.
10. Tiller revised the project to eliminate all aggregate processing activities, including washing, at the Zavoral site. Any processing of material would be conducted at the Scandia Mine site. The revised project proposal significantly affected the EIS alternatives and the required analyses. Based on Tiller's proposed revised project, the City conducted a formal Scope Amendment Process, and approved a Revised Scoping Decision Document (RSDD) for the proposed project in January 2010. The RSDD was published in the *EQB Monitor* on February 8, 2010.

11. The RSDD identified the issues and alternatives that would be analyzed in the EIS, including the following:
- a. Land Use/Potential Environmental Hazards/Reclamation Plan and Economic Impacts of each alternative, particularly analysis of the alternatives and proposed reclamation plan in relationship to surrounding area, and consultation and coordination with natural resource management agencies on the reclamation plan.
 - b. Cover Types, particularly impacts to wetland cover types.
 - c. Fish, Wildlife and Ecologically Sensitive Resources, including a biological assessment, analysis of impacts and agency coordination.
 - d. Physical Impacts on Water Resources, including mapping all resources, determination of impacts, and agency coordination.
 - e. Water Use, including an analysis of water use under the revised project proposed at both the Zavoral and Scandia Mine sites.
 - f. Water-Related Land Use Management Districts, particularly an analysis of potential impacts to the St. Croix River District and National Scenic Riverway.
 - g. Erosion and Sedimentation, including impacts to water resources in the area such as the St. Croix River, Zavoral Creek, seeps and wetlands.
 - h. Surface Water Quality and Quantity, including impacts to groundwater and groundwater-dependent resources and surface waters.
 - i. Geologic Hazards and Soil Conditions, including revising the analysis based on the revised project scope.
 - j. Solid Waste, Hazardous Waste and Storage Tanks, including analysis and mitigation strategies related to groundwater and groundwater-dependent resources.
 - k. Traffic, including impacts of each of the alternatives and impacts of hauling mined material to the Scandia Mine site.
 - l. Stationary Source Air Emissions, including analysis of fugitive dust sources and impacts to the St. Croix River.
 - m. Odors, Noise, Dust, including quantifying current conditions and impacts under each of the proposed alternatives.
 - n. Visual Impacts, including viewshed analyses at key viewing areas.

- o. Compatibility with Plans and Land Use Regulations, including impacts to the Carnelian-Marine-St. Croix Watershed District and St. Croix Riverway Management Plans.
 - p. Cumulative Impacts.
12. The EQB rules require that an EIS evaluation address at least one alternative from each of several alternative types, or provide a concise explanation of why an alternative from a particular alternative type is not evaluated. The alternatives types that were evaluated and those that were not evaluated in the Zavoral Mine and Reclamation Project EIS are described as follows:
- Alternative #1: Proposed Project (Proposed Action)—Tiller’s preferred proposal to mine and reclaim the Zavoral Site, and to transport material for processing and use to the Scandia Mine site. 64 acres would be mined and reclaimed, and 4 acres of the previously mined area would be reclaimed. Project duration proposed to be up to 10 years.
 - Alternative #2: No Build (No Action)—no mining and no reclamation of the Zavoral Site.
 - Alternative #3: Reduced Time Frame for Mining Activities (Modified Scale of Magnitude Alternative)—same activities as Alternative #1, with the site to be mined for a maximum of five years.
 - o Subalternative #3A: The Project Advisory Committee (PAC) identified this alternative, and requested that it be analyzed in the EIS. The alternative includes the same activities identified for Alternatives #1 and #3, but specifies that mining at the site be completed over approximately 150-working days within one year.
 - No Alternative Sites were included—Explanation: Off-site alternatives do not meet the project purpose and need of making use of the significant aggregate resources that are found at the Zavoral Site. The site alternatives are limited by the presence of the natural resources due to the following: (1) The needs of a mining project can only be met where mineral deposits exist, (2) where the deposits are under control of the Proposer, (3) where mining activities are permitted, and (4) where the mineral deposits can economically be mined, processed and sold. Although there may be gravel deposits at other locations, if they are not under control of the Proposer, are not located in an area where mining is permitted, and cannot be economically mined, processed, and sold, they do not meet the purpose and need for the project.
 - No Technology Alternatives were included—Explanation: Best practicable technologies for the project activities will be utilized under all Alternatives #1, #3 and #3A.

- No Modified Scale Alternatives were included—Explanation: The project scale was modified through the elimination of processing and washing at the Zavoral Site, and the creation of the RSSD. The potential for modification of the project scale was also considered as part of the analysis of Alternatives #1 and #3. Analysis of a separate modified scale alternative was not needed.

III. Draft Environmental Impact Statement

13. The Draft EIS (DEIS) was prepared in a manner consistent with EQB rules (Minn. Rules 4410.2300) and in accord with the revised scoping decision. The DEIS contained:
 - a. A cover sheet identifying the RGU, the project title, the project location, the date of the public meeting on the DEIS, and the date for the end of the comment period.
 - b. List of preparers.
 - c. Table of contents.
 - d. An executive summary which included a project overview, summary of DEIS alternatives, content, and the major findings, potential mitigation measures, areas of controversy, and issue to be resolved. The DEIS did not recommend a preferred alternative.
 - e. A project overview including a project description, project purpose, its size, scope, proposed phasing, the revised mining proposal, and the need for the proposed project.
 - f. A list of all known governmental permits and approvals required by the project.
 - g. A description of the Project Advisory Committee (PAC) and its role in the EIS.
 - h. A discussion of the areas of controversy.
 - i. A detailed description of the proposed project and alternatives, including a detailed discussion of reclamation and alternative approaches, and a discussion of current and proposed activities at the Scandia Mine.
 - j. A discussion of the alternatives that were considered.
 - k. A discussion of the environmental, economic, employment and sociological impacts generated by the project.

1. A summary of the potential mitigation measures proposed to avoid, minimize or mitigate for any adverse effects of the project.
14. Utilizing the information in the technical reports included in the DEIS Appendices, the DEIS analyzed the environmental impacts of the proposed project (Alternative #1), two alternatives and one subalternative. The summary comparison of alternatives and impacts notes the following:
 - a. The DEIS found that Alternatives #1, #3 and #3A would have similar impacts over the duration of the mining operation, but that the duration of many impacts would be shorter under Alternatives #3 and #3A than under Alternative #1.
 - b. Alternatives #3 and #3A may have a reduced potential for major storm events and potential impacts to water resources than Alternative #1 due to the reduced timeframe.
 - c. Under Alternative #3A, Tiller would not be able to comply with the City's current restriction on the use of County Road 1 (Lofton Avenue) access at the Scandia Mine during non-daylight hours.
 - d. Under Alternative #3A, dust emission rates would be higher on a daily and annual basis than for Alternatives #1 and #3, though emissions would likely not exceed standards or affect surface waters and other natural resources around the site under Alternative #3A.
 - e. Under Alternative #3A, noise levels are expected to be higher than under Alternatives #1 and #3 due to the larger number of trucks operating at the site, and noise impacts would extend over 12 hour-working days rather than 10-hour days proposed for Alternatives #1 and #3.
 - f. The Zavoral Site would be reclaimed earlier under Alternatives #3 and #3A than under Alternative #1.
 - g. The DEIS found that No Build Alternative (Alternative #2) would generally result in no change from current conditions, and therefore would avoid the impacts identified for Alternatives #1, #3 and #3A. No reclamation of the previously mined areas would occur. This alternative would not meet the purpose and need for the project.
 15. The Scandia City Council authorized distribution of the DEIS on February 28, 2012. The authorization set a 60-day comment period for the DEIS. The DEIS was distributed to the mailing list contained in the EQB Rules, to the proposer, the governmental units known to have permitted or approval over the project, and to persons requesting the DEIS. A notice of availability of the DEIS was published in the *EQB Monitor* on March 19 2012, and a press release was published in area newspapers on March 7, 2012. The City placed a copy of the DEIS on its website.

16. The public notice and press release included a brief description of the project, information on the date, time and location of the public meeting, the date on which the public comment period would end, and the locations at which copies of the Draft EIS were available for review, including Scandia City Hall and local libraries.
17. The City held a public meeting to receive comments on the DEIS on April 3, 2012 from 7:00 to 9:30 p.m. at the Scandia Community Center, 14727 209th Street North in Scandia, Minnesota. The meeting was attended by the proposer, City Planning Commission, Council and staff, the project consultant, interested citizens, other interested parties, agencies, and the local media. The meeting was recorded via court reporter and a transcript is available upon request from the City.
18. During the comment period that ended on May 18, 2012, the City received 15 verbal comments at the April 3 public meeting and 66 written comments. The City prepared the Responses to Comments document that summarized the comments and responded to the comments. The Comments and Responses were included in the Final EIS.
19. The comments received during the public comment period address a wide range of topics, including concerns related to the project's relationship to the City's Comprehensive Plan and land use controls, the potential impacts of the project, the proposed reclamation plan and mitigation, relationship of the project to the St. Croix Scenic Riverway and other adjacent resources, and the adequacy of the DEIS.
20. The alleged inadequacies in the DEIS expressed in the comments are summarized in the table below.
21. The Responses to Comments document (included in the Final EIS, August 8 2012) includes responses to the alleged EIS inadequacies. The responses provide supplemental information and corrections to address the inadequacies identified in the comments, or that explain how the EIS is adequate and satisfies the EIS rules. The City of Scandia finds that, in response to the alleged inadequacies, the EIS is adequate for the reasons set forth in the Responses to Comments documents. The specific responses to the alleged inadequacies are referenced and summarized in the table that follows:

Alleged EIS inadequacy	City response to alleged inadequacy
<p>Economic impacts, including local economy, businesses and tourism not quantified and addressed.</p>	<p>The potential economic impacts, including local economy, businesses and tourism were quantified and addressed in the appropriate sections of the DEIS. Section 4.3.6 of the DEIS quantifies the production tax on aggregate material and taxes that would be paid by the project. Section 4.3.2 of the DEIS analyzed tourism impacts, particularly related to the St. Croix River and river corridor. The DEIS analysis found that the proposed mine would have no discernible impact on local tourism based on the following:</p> <ul style="list-style-type: none"> • The local highways that handle tourism-related traffic 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 • The project will not be visible or audible from key tourism sites or visible from the Riverway. • Potential noise impacts on the Riverway do not exceed adopted State noise standards. • The potential project impacts to water resources, air quality, and other resources related to tourism and the local economy can be mitigated to avoid potential economic impacts.
<p>Impacts to property values analysis did not meet industry or provide the “hard look” at unavoidable economic impacts required by MEPA (Minnesota Environmental Policy Act). Property impacts analysis had an inadequate scope, sample size, and did not use adequate comparable properties.</p>	<p>The property value study meets industry standards. It was conducted by a Certified Real Property Appraiser licensed in Minnesota and in conformance with the Code of Ethics and Standards of Professional Practice of the Appraisal Institute and Professional Appraiser Practice in Minnesota. The property values analysis utilized a one-mile radius, because the results of the analyses of other EIS items determined that no impacts that affect property value would occur outside</p>

Alleged EIS inadequacy	City response to alleged inadequacy
	<p>that radius. The analysis used recent comparable property sales near operating gravel mines and similar facilities in Minnesota. While the number of property transactions was relatively small due to the low level of housing market activity in recent years, it was an adequate sample to determine potential impacts. The analysis includes the specific information and analyses required to meet the MEPA requirements.</p>
<p>Property impacts analysis did not adequately address noise impacts.</p>	<p>The BRKW analysis addressed factors that may be considered a negative impact on property values, including increased activity at the Site, noise, dust, traffic, and other factors that buyers considered in purchasing properties close to a gravel mining operation. The noise analysis (Section 4.15 of the DEIS) determined that there would be a perceptible increase in noise levels at homes near the site, and that the impact may affect homes within ¼ mile of the mine site. Within the ¼ mile area, the DEIS analysis states that up to 5% property value reduction may occur for properties that are sold during the time that the mine is operating, but that many factors other than the mine will also contribute to the values and potential sale prices of homes in the area.</p>
<p>Sociological impacts, including noise, health, public safety, quality of life, did not include the perspective of recreation users and local residents.</p>	<p>The DEIS analyzed each of the impacts identified on residents and recreation users. The DEIS recognizes that the operation of the Zavoral Mine would have some impacts, but as long as the mine is operated within the proposed project that was analyzed in the DEIS, implements the identified mitigation measures and reclaims the site, neither the negative nor positive impacts on recreation users or local residents identified through the DEIS analysis were determined to be significant impacts based on the criteria for defining “significant impacts” in Minn. R. 4410.1700.</p>
<p>Potential displacement of wildlife.</p>	<p>The DEIS analysis notes that wildlife at the Zavoral site would be temporarily displaced by project impacts to habitat, noise and related</p>

Alleged EIS inadequacy	City response to alleged inadequacy
	<p>impacts. Wildlife would most likely be displaced temporarily to similar habitats in adjacent areas to the north, east and south of the property. No threatened or endangered species would be impacted. The proposed reclamation plan will provide suitable habitat for displaced species after mining activities are completed at the site.</p>
<p>The Biological Survey was narrowly prescribed, and largely focused on state-listed rare species on the Zavoral property. By law, the DEIS should include all ecologically sensitive resources, and the affected area is not limited to the Zavoral property.</p>	<p>The DEIS considered direct and indirect impacts to all wildlife in and near the Zavoral Site, and was not limited to endangered and threatened species on the Zavoral Site. The analysis included impacts to surface water habitats within the site and downstream, including the St. Croix River. The data collected for the red-shouldered hawk survey found no hawk territories in or adjacent to the site. The analysis concluded that wildlife on or around the Zavoral Site would most likely be displaced temporarily to similar habitats in adjacent areas to the north, east and south of the site. The proposed reclamation plan will provide suitable habitat for displaced species after mining activities are completed at the site.</p>
<p>Issues in July 21, 2008 Natural Heritage Program letter related to impacts to Butternut trees, a species of Special Concern.</p>	<p>The Final EIS was updated to address the DNR natural Heritage Program comments regarding Butternut trees, a Species of Special Concern. The list of required permits was updated to include an Endangered Species Take Permit, if Butternut trees are reclassified from Special Concern to Endangered.</p>
<p>Potential impacts to rare, threatened and endangered species on site and in adjacent areas, including mussel populations in St. Croix River.</p>	<p>Rare species surveys were completed for the species that the Minnesota DNR Natural Heritage Program staff determined to be at the site or that had the potential to be impacted by site activities. The water resource analysis completed for the Draft EIS did not identify any potential impacts to the St. Croix River due to the proposed project. The water resource analysis found that the best management practices that will be implemented with the project would reduce pollutant loadings to Zavoral, Middle and South Creeks and the St. Croix River</p>

Alleged EIS inadequacy	City response to alleged inadequacy
	<p>compared to existing conditions. Based on this analysis, there was no need to survey the mussel populations in the St. Croix River.</p>
<p>Impacts resulting from habitat fragmentation and edge effects, including noise and visual impacts on wildlife.</p>	<p>The responses to the comments on the Draft EIS analyzed the potential habitat fragmentation that would occur during the project. The existing area of “edge effects” on the site where the previously mined area meets existing woodland is 4,065.6 lineal feet. After mining is complete, the new edge would have a linear distance of 4,329.6 feet, an increase of only 264 feet (approximately 6%) over the current condition. Therefore the project would not significantly increase habitat fragmentation and edge effects at the site. As noted previously, the noise and visual impacts on wildlife will likely cause temporary displacement of some wildlife to adjacent areas, but this is not a significant impact.</p>
<p>Impacts to the environmental quality of the region and larger ecological context.</p>	<p>The DEIS analysis notes that the majority of the project site has had significant disturbance due to past mining. The DEIS analyzed and mapped the ecological context of the area, and identified the potential impacts of the project. The potential impacts identified were not determined to be significant impacts based on the criteria for defining “significant impacts” in Minn. R. 4410.1700.</p>
<p>Impacts to waters near the site that feed the St. Croix River.</p>	<p>The Draft EIS thoroughly analyzed the potential impacts to surface and ground waters at and near the site, including those that drain to the St. Croix River. The water resource analysis found that the best management practices that will be implemented with the project would reduce pollutant loadings to Zavoral, Middle and South Creeks (which drain to the St. Croix) and to the St. Croix River compared to existing conditions.</p>
<p>Impacts to St. Croix National Scenic Riverway and National Park, and MnDNR Regionally Significant Ecological Area. Fails to consider special nature and designation of St. Croix River and existing laws and</p>	<p>Section 4.1.1.5 of the Draft EIS includes a detailed description of the public natural and recreational resources near the project area, including the Lower St. Croix National Scenic Riverway, the laws and regulations that govern the Riverway, and the MnDNR</p>

Alleged EIS inadequacy	City response to alleged inadequacy
<p>regulations that govern the area.</p>	<p>Regionally Significant Ecological Area. Appropriate sections of the EIS analyze the potential noise, air, water, visual quality, and economic impacts to these areas as a result of this project, and mitigation measures that would avoid, minimize or mitigation potential impacts to these areas. No significant impacts were identified that would impact the Riverway and Regionally Significant Ecological Area.</p>
<p>Cumulative impacts to the St. Croix National Scenic Riverway.</p>	<p>The project’s potential for cumulative impacts to all areas were analyzed in Section 4.17 of the Draft EIS. The section notes that no new gravel operations (other than the proposed project) or other development are proposed in the vicinity that would impact the St. Croix National Scenic Riverway. Therefore no significant cumulative impacts were identified.</p>
<p>Water well testing was not adequate. Should test larger number of wells and cumulative effect of Zavoral and Abrahamsen Nursery wells.</p>	<p>An extended pump test was completed of the well that would be utilized for the project. The test was conducted for 4 hours and 20 minutes, and removed 172,600 gallons of water--17 times the maximum daily potential groundwater use for the project, based on the Zavoral site well permit. The results of the test showed a small level of drawdown at the Zavoral cabin well, and no draw downs on the other monitored wells that were part of the test. This is consistent with expectations based on the geologic conditions that exist at the Site. The test results indicate that no additional test of wells located further from the site than the test wells are needed to evaluate impacts.</p> <p>As is the standard practice for pump tests, measures were taken to avoid interference from other wells in the area, including the Abrahamson Well, which is more than 1 mile from the Zavoral site well. Given the geographic separation of the wells, the potential for cumulative effects from pumping is extremely small. The higher level of pumping that is permitted and occurring at the Abrahamson well would mask any impacts</p>

Alleged EIS inadequacy	City response to alleged inadequacy
	from the Zavoral well, at the pumping rates allowed by the Zavoral well permit.
Did not evaluate alternative sites.	The Draft EIS included the rationale for not including alternative site evaluations. Off-site alternatives were not investigated because they do not meet the project purpose and need to use the significant aggregate resources that are found within the Zavoral mine site. Site alternatives for the project are limited to the presence of the resource; locations where the proposer has control of the site; locations where mining is allowed by the local ordinance, and where the resource can be economically extracted and utilized.
Did not evaluate modified scale alternative (alternative mine layout).	A modified scale alternative was evaluated during the EIS process. The original preferred alternative included processing of aggregate material at the site. The project was revised to eliminate processing at the site based on the significant investment that the proposer would have needed to make to obtain the water appropriation permit need for processing activities. Therefore, the EIS evaluated a modified scale alternative.
Did not evaluate reclamation-only alternative.	A reclamation-only alternative is not feasible because the only known source for funding reclamation is the mining activity.
Inadequately addresses noise impacts given rural setting and proximity to St. Croix River.	The noise impact analysis followed standard procedures for evaluating noise impacts in both rural and urban areas. The analysis utilized the adopted State of Minnesota noise standards to determine potential impacts. The state noise standards are adopted by reference in the City's Zoning Ordinance, and are the only enforceable limits available to the City. Some comments suggested that the National Park Service (NPS) goals for noise levels on National Scenic Rivers be utilized as the standard, but the State of Minnesota has not adopted the NPS noise goals as regulations or standards, and therefore the NPS goals are not enforceable. The City of Scandia cannot adopt more stringent noise standards than the State standards.
Does not address noise and dust impacts	The project area includes 64 acres. 55 acres

Alleged EIS inadequacy	City response to alleged inadequacy
due to tree removal.	have been previously mined. Trees will be removed from approximately 9 acres of the site that were previously not mined. Trees will be added with proposed berms and as part of the site reclamation. The limited tree removal and addition of trees on berms were considered in the EIS analyses.
Air and dust impacts on water resources and human health.	The Draft EIS includes an extensive evaluation of dust and noise impacts on human health in sections 4.14 and 4.15, and of the Fugitive Dust Control Plan and traffic plans submitted by the proposer. The analysis concluded that if the mitigation actions included in the EIS are implemented, the dust and noise impacts will not exceed state standards. The Draft EIS recommends monitoring of air and noise at the mine site if the project is approved, and implementation of the mitigation strategies included in the EIS.
Calcium chloride and other chemical impacts on ground water.	Tiller is proposing to use a non-chloride product for dust control. This information has been added to the Final EIS. The only other chemicals that may be utilized at the site include limited amounts of fertilizers and herbicides that would be used in reclamation activities. The reclamation plan would include a list of potential products to be used, and standards for use that would avoid or minimize potential impacts.
Low-frequency noise impacts.	The noise analysis addressed the relationship of potential noise impacts to the noise standards adopted by the MPCA (MN Rule 7030.0040) for low-frequency noise as well as other noise impacts.
Noise impacts from back-up alarms, idling trucks and dumping gravel into truck beds.	Tiller indicated that broadband alarms (which have lower levels of noise impacts than typical back-up alarms) will be utilized on Tiller equipment at the site. The City may include other conditions to manage noise potential noise impacts if it approves a conditional use permit for the project, such as specifying operating hours and traffic patterns at the site that minimize impacts.
Traffic impacts—did not provide	MnDOT’s Traffic Impact Study Guidance

Alleged EIS inadequacy	City response to alleged inadequacy
adequate traffic counts and data, capacity analysis and crash analysis. Did not adequately analyze the traffic impacts of the alternatives.	indicates that the items requested are not necessary for analysis of most developments. The projected hourly and daily traffic volumes for the project are well below the threshold discussed in the MnDOT Manual. However, the City supplemented the Draft EIS completed a level of service analysis for the intersection at TH 95 and TH 97 and additional crash data analysis in response to the comments. The additional analysis identified no significant potential impacts.
Impacts of diesel truck emissions on air quality.	The Final EIS includes additional analysis of the potential impact of diesel truck emissions. When the potential emissions from diesel exhaust are added to the maximum ambient impact of the project identified in the Draft EIS, the total is less than the maximum allowed by the US Environmental Protection Agency's national ambient air quality standard (NAAQS).
Does not show the condition of the mine pit after mining is completed.	The reclamation plan for the site is described in Item 3.1.1.3 of the Draft EIS. The Draft EIS includes detailed plans that indicate the proposed elevation of the mine floor after mining is completed (Figures 5-10 in the Draft EIS), and the vegetative communities that will be used to reclaim the pit and the remainder of the mine site.
Light impacts were not adequately addressed.	The City's Zoning Ordinance requires that any supplemental lighting at the project site be downcast and shielded to minimize the potential of light impacts. The proposer indicated that the only lighting that will be implemented at the site will be security lighting. The City will enforce its ordinance requirements if a permit is approved for the project. The City supplemented the DEIS with additional information regarding lighting requirements.
Does not include specific BMP's to avoid or minimize impacts of thermal pollution and erosion and sedimentation on Zavoral Creek.	The Draft EIS notes that the project would require several permits for the management of erosion and sedimentation, including NPDES (National Pollution Discharge Elimination System) permits for stormwater discharges, construction, and gravel quarrying facilities.

Alleged EIS inadequacy	City response to alleged inadequacy
	<p>The permits will require a Storm Water Pollution Prevention Plan (SWPPP). The draft SWPPP that Tiller prepared for the project that was reviewed for the Draft EIS includes a variety of BMP's (Best Management Practices to avoid or minimize pollution, erosion and sedimentation. The MnDNR noted in its comments on the Draft EIS that "The potential for increased infiltration in the project area due to almost all post-mining drainage being contained on site may actually cool the trout stream, as more flow in the stream will be from groundwater than surface water. It is probable that thermal impacts to the trout stream will be minimal."</p>
<p>Water resource impacts not adequately addressed: map spring locations, water quality data from Middle and South Creek, impacts of pollutants on receiving waters, impacts on vegetation of seeps.</p>	<p>Sections 4.4, 4.6, and 4.10 of the Draft EIS analyzed all waterways and wetlands between the proposed Zavoral mining and reclamation area and the St. Croix River. Agency comments (Washington Conservation District) on the DEIS noted that "we believe that the DEIS 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."</p>
<p>EIS should include a specific list of mitigation measures agreed to by the mine operator and the City.</p>	<p>The Draft EIS includes a specific list of mitigation measures that would avoid, minimize or mitigate for the impacts that may occur as a result of the project. State rules do not require that the proposer and City "agree" to a list of mitigation measures in the Final EIS. The City and other permitting agencies will use the list of mitigation measures identified in the Final EIS as they review the proposer's permit applications and develop conditions for the Conditional Use Permit and other required permits.</p>

IV. Final Environmental Impact Statement

22. The City prepared a Final EIS pursuant to the requirements in Minnesota Rules 4410.2700. Following review of the comments received on the Draft EIS, the City made some changes to the DEIS, as noted in the Final EIS. The City determined that the bulk of the information in the Draft EIS had not changed. Therefore a Final EIS

including supplemental information, revisions and responses to substantive comments was prepared, as required by Minnesota Rules 4410.2700, subpart 2.

23. The Final EIS was a packet that contained:
 - a. A cover sheet identifying the RGU, proposer, and contact persons, an abstract, and the date by which comments on the Final EIS should be received.
 - b. A table of contents.
 - c. An introduction and summary.
 - d. A section presenting comment letters and responses to comments.
24. The City distributed copies of the Final EIS on August 20, 2012, in a manner consistent with Minnesota Rules 4410.2300, subp 3. The City provided copies to all persons receiving copies of the Draft EIS, all parties who submitted comments on the Draft EIS, and all persons requesting copies of the Final EIS. A copy of the Final EIS was posted on the City website, and copies were available at Scandia City Hall and at local libraries for review.
25. The notice of availability of the Final EIS was published in the *EQB Monitor* on August 20, 2012, and a press release was issued to newspapers in the Scandia area on August 9, 2012. These notices indicated the locations at which copies of the Final EIS were available for review and the date on which the comment period on the Final EIS were to expire (September 10, 2012).
26. Twenty-one (21) comment letters and emails were submitted during the comment period that ended on September 10, 2012. A tabular list of the comments received and copies of all comments are included in Attachment A.1. Most of the comments duplicated comments that were made on the Draft EIS, and the City previously responded to those comments in the Final EIS. Many comments addressed issues related to Tiller's CUP application and the application process, and were not related to the adequacy of the EIS. However, two issues raised in the comments warranted further attention and are identified and responded to in the table below:

Alleged Final EIS inadequacy	City response to alleged inadequacy
<p>Comment Letter #5-RLK, Inc., Vernon Swing. Documentation is not provided for supplemental FEIS traffic analysis.</p>	<p>Commenter requested that the supporting documentation for the TH 97/TH 95 intersection analysis be provided. This supporting documentation is attached (Attachment A.3) and included by reference as Appendix F, which has been added to the FEIS.</p>
<p>Comment Letter 18, National Park Service, Christopher Stein, Superintendent, St. Croix National Scenic Riverway.</p> <p>1) The rationale used to conclude that the proposed mine would have no discernible impact on local tourism is flawed.</p>	<p>Response to item 1). The potential economic impacts of the proposed project, including tourism impacts, were quantified and addressed in the appropriate sections of the DEIS. Section 4.3.2 of the DEIS analyzed tourism impacts, particularly related to the St. Croix River and river corridor. The DEIS analysis found that the proposed mine would have no discernible impact on local tourism based on the following:</p> <ul style="list-style-type: none"> • The local highways that handle tourism-related traffic 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. • The project will not be visible or audible from key tourism sites or visible from the Riverway. • Potential noise impacts on the Riverway do not exceed adopted State noise standards. • The potential project impacts to water resources, air quality, and other resources related to tourism and the local economy can be mitigated to avoid potential economic impacts. <p>The City’s Mining Ordinance permits mining only between 7 a.m. and 7 p.m. on weekdays. Mining is prohibited on weekends and holidays. Therefore, mining and associated noise and traffic impacts will not impact tourists and recreationists on the Riverway during the times of heavier tourism and recreational use.</p> <p>The City will also incorporate this mitigation measure into the Final EIS (Attachment A.2, revised pages ES 42 and 5-4) to address noise and traffic impacts during</p>

<p>2) The EIS did not apply the appropriate noise standards to the Riverway</p>	<p>times of heavy tourism traffic:</p> <ul style="list-style-type: none">• Consider a condition for mine operation that the mine operate only between the hours of 7 a.m. and Noon on Fridays <p>Response to Item 2). In addition to comparing the projected noise analysis against Minnesota Rules, the EIS also completed a detailed analysis of the projected noise levels at multiple receptors along the St. Croix Riverway and the ambient noise levels as measured by the National Park Service (NPS) in the summer of 2011. <u>The existing environment along the St. Croix Riverway, as documented by the NPS, shows that the current noise levels are low, at a median L₅₀ noise level of 39.4 dBA.</u> Please note, the existing maximum L₅₀ noise levels are higher than the median. The maximum noise level information was not provided by the NPS. Since the maximum L₅₀ noise levels were not discussed in the NPS report on the noise monitoring, the median was used for the EIS analysis.</p> <p><i>The NPS Final Cooperative Management Plan EIS for the Lower St. Croix National Scenic Riverway does not apply the NPS 2006 Noise Management Policies to the Riverway. The Management Plan policies state that <u>Noise levels would be consistently low.</u> (emphasis added)."</i></p> <p><u>The detailed noise analysis in the EIS showed that modeled L₅₀ noise levels from the proposed Project on the St. Croix Riverway would be 38.6 dBA and the total noise level, proposed Project plus ambient, would be 42.0 dBA.</u> The noise levels from Phase 3 of the proposed mining plan were used in the analysis because this is the closest mining area to the St. Croix Riverway. <u>This is approximately the same noise level as would be expected in a quiet office or quiet residential neighborhood, e.g. low noise levels.</u></p> <p>Therefore, the noise analysis showed that the sound levels from the proposed Project would remain low, although mining activities may be audible on the St. Croix Riverway. The mining noise may be audible due to the differences in frequencies of mining noise vs. other manmade noises and natural noises. Mining noise generally occurs at lower frequencies than the other</p>
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	<p>man-made noise (such as boat motors) and natural sounds that are currently experienced on the St. Croix River.</p> <p>Mitigation strategies proposed in the EIS to maintain low noise levels during mining operations include the following:</p> <ul style="list-style-type: none">• Construction of berms as part of the reclamation plan to provide shielding to reduce noise impacts to residents and the St. Croix River.• The city's ordinance currently prohibits mining operations from occurring on weekends or holidays, times of peak recreational and tourist activity in the Riverway and adjacent areas. <p>Based on the NPS is concern about the potential for low levels of audible noise related to mining operations and its potential to impact recreational use of the river, some additional mitigation not related to noise standards could include additional restriction of the time and duration of noise from mining and trucking operations. The following mitigation measures have been incorporated in the final EIS (Attachment A.2-revised pages ES-42 and 5-4).</p> <ul style="list-style-type: none">• The City will consider a condition that the mine may operate only between the hours of 7 a.m. and Noon on Fridays. This would also reduce the potential impact of the proposed Project on recreational traffic during that timeframe.• The City may require inspection of trucks and on-site equipment to determine that mufflers are in good working order.
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V. Determination of Adequacy and Conclusions of Law

27. The City, as RGU for the Zavoral Mine and Reclamation Project EIS, is the appropriate governmental unit for making a determination of adequacy pursuant to Minn. R. 4410.2800.

28. The Final EIS Responses to Comments responds to the substantive comments received during the Draft EIS comment period, which was held from March 19, 2012 to May 19, 2012. The Final EIS provided adequate responses to the substantive comments received during the Draft EIS review concerning issues raised in scoping (Attachment B).
29. The information presented in the Final EIS adequately addresses the issues identified in the Revised Scoping Decision Document adopted in April 21, 2009.
30. The proposed action is described in sufficient detail.
31. The EIS adequately analyzes significant environmental impacts.
32. The EIS adequately presents alternatives to the proposed action and their impacts.
33. The EIS adequately presents methods by which all of the potential adverse environmental impacts can be mitigated.
34. The EIS adequately presents the economic, employment and sociological effects that cannot be avoided should the proposed action be implemented.
35. The public has had adequate opportunity to participate in the environmental review process and to provide comments.
36. The EIS has been developed in accordance with the procedures specified in Minn. Stat. ch 116D and Minn R. 4410.0200 to Minn. R. 4410.6500.

ORDER

37. The EIS for the proposed Zavoral Mine and Reclamation Project is adequate because it meets the criteria set forth in Minn. R. 4410.2800 and the requirements of Minn. Stat. ch. 116D, which require that it:
 - a. Address the potentially significant issues and alternatives raised in scoping so that all significant issues for which the information can be reasonably obtained have been analyzed;
 - b. Provide responses to the substantive comments received during the draft EIS review concerning issues raised in the scoping process; and
 - c. Was prepared in compliance with the procedures of the Minnesota Environmental Policy Act and Minn. R. 4410.0200 to 4410.6500.
38. Any findings of fact that are more properly deemed conclusions and any conclusions that are more properly deemed Findings of Fact are hereby adopted as such.

IT IS SO ORDERED



Randall Simonson, Mayor
City of Scandia

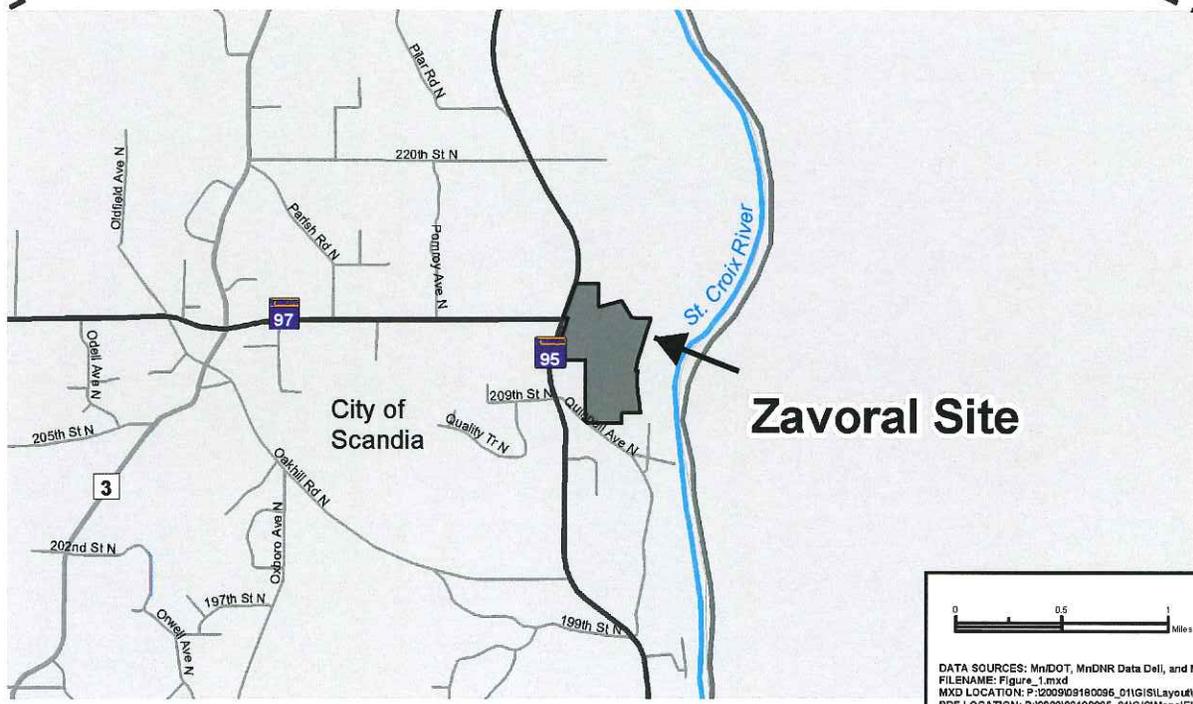
9/25/12
Date

ATTEST



Kristina Handt
Administrator/Clerk

9/25/12
Date



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DATA SOURCES: Mn/DOT, MnDNR Data Del, and MN LMIC.
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Prepared By:
AECOM

Prepared For: 
SCANDIA
 minnesota

FIGURE 1
PROJECT LOCATION MAP
 ZAVORAL MINING AND RECLAMATION PROJECT
 SCANDIA, MINNESOTA
 FEB. 2012
 60210154