Meeting Date: 1/19/2010
Agenda Item:

City Council Agenda Report
City of Scandia

14727 209th St. North
Scandia, MN 55073 (651) 433-2274

Action Requested: Adopt a revised final EIS (Environmental Impact Statement) Scoping Decision for the Zavoral Mining and Reclamation Project.

Deadline/ Timeline: N/A.

Background:

- Due to changes in the project proposed by Tiller Corporation, it is necessary to revise the alternatives and scope of the EIS. City Planner Sherri Buss prepared a memorandum describing the proposed changes and the process for revising the scope, attached.
- Revising the EIS scope will significantly affect the work plan for the City's consultants, AECOM, necessitating amendments to their contract. Once the revised scope has been approved by the Council, we will prepare and bring an amendment to the Council for review at a subsequent meeting.
- Because it has taken some time to develop the revised scope, preparation of the EIS has been delayed. We have determined that there will not be sufficient progress prior to the scheduled February 3, 2010 meeting of the PAC. That meeting has been cancelled. The next meeting of the PAC will be on Tuesday, April 27 (4:00 p.m. to 6:00 p.m.)

Recommendation: I recommend that the Council adopt the resolution.

Attachments/ Materials provided:

- Memo from TKDA dated January 15, 2010
- Draft Resolution.01-19-10-05

Contact(s): Sherri Buss, TKDA 651 292-4582
Prepared by: Anne Hurlburt, Administrator

(Zavoral EIS Revised Scope)

TKDA
ENGINEERS • ARCHITECTS • PLANNERS

444 Cedar Street, Suite 1500
Saint Paul, MN 55101-2140

(651) 292-4400
(651) 292-0083 Fax
www.tkda.com

MEMORANDUM

To:	Scandia City Council	**Reference:**	Zavoral Mine and Reclamation Project EIS
	Anne Hurlburt, City Administrator		Revised Alternatives and Scope for EIS
Copies To:	Mike Caron, Tiller Corporation		
	Kirsten Pauly, Sunde Engineering		
	Leslie Knapp, AECOM		
From:	Sherri Buss, R.L.A., City Planner	**Proj. No.:**	14305.001
Date:	January 15, 2010	**Routing:**	

BACKGROUND

The City Council approved a Final Scoping Decision Document for the Environmental Impact Statement (EIS) for the Zavoral Mining and Reclamation project in April, 2009. In August, 2009 the City hired AECOM as the consultant to complete the EIS, and AECOM completed a work plan for the EIS based on the Scoping Decision Document. The City published a Notice of Intent to Prepare the Environmental Impact Statement in the EQB Monitor on September 7, 2009.

The Scoping Decision Document identified and described the project alternatives that will be analyzed in the EIS, the issues that will be analyzed, and the proposed schedule for the EIS.

On December 1, Tiller Corporation sent a letter to the City indicating that they are proposing changes to the Zavoral Mine project as described in the Scoping Decision Document. The revision would change the EIS alternatives and analysis, and will require changes in the Scoping Decision Document and the work plan for the EIS.

City staff contacted the staff of the Environmental Quality Board (EQB) and reviewed the state's rules regarding the EIS process to determine the required process for amending the scope of the EIS (Minnesota Rules 4410.200, Subpart 8). This memo describes the changes that Tiller has proposed in the project scope and the process required for amending the scope of the EIS. The changes require the approval of the City Council.

PROPOSED CHANGES TO THE EIS ALTERNATIVES AND ANALYSIS

Tiller Corporation's letter to the City dated December 1, 2009 outlines the changes proposed to the Zavoral Mining and Reclamation Project. The changes include the following:

- Tiller is proposing to eliminate the processing activities that were originally proposed as part of the project at the Zavoral site.

- The aggregate material mined at the Zavoral site will primarily be transported to the Scandia Mine site, located on Manning Avenue near 225th Street. This site is also operated by Tiller. The material will be transported as "pit run" material (gravel as found in natural deposits) or as add-rock to the Scandia Mine, to provide material that will meet the specified gradations of marketable aggregate. The add-rock would be combined with materials from the Scandia site to meet specifications. The supplemental material may be processed at the Scandia site, or may be utilized without further processing. Tiller indicated that the material from the Zavoral site will replace material transported to the Scandia Mine site from various locations, including Chisago County and Polk County.

The elimination of processing activities at the Zavoral site and transfer of the proposed processing to the Scandia Mine site will affect several elements of the EIS:

- *The changes will require revision of the alternatives to be examined in the EIS from four to three*. Alternative #3—Impacts of Washing and Alternative #4- Impacts of Seasonal Scheduling of Processing Activities included in the April 2009 Scope would be eliminated. Tiller is proposing a new alternative (Alternative #3) that would examine the potential impacts of compressing the length of time that the Zavoral Mine would be operated to up to five years, rather than up to 10 years as proposed in the Preferred Alternative. The proposed alternatives to be examined in the EIS would be amended in the new scope to include the following:
    - Alternative #1 – Applicant's Preferred Alternative
    - Alternative #2 – No Build Alternative
    - Alternative #3 – Revised Schedule

- *The scope of the EIS analysis and consultant work plan would be revised in several areas.* The scope would be revised to analyze the impacts of mining at the Zavoral site without the processing activities, and to analyze any potential impacts at the Scandia Mine site resulting from the transport of mined material from the Zavoral site to the Scandia Mine site. The analysis of potential impacts at the Scandia Mine site will compare the potential impacts of the proposed activities at the site to the potential impacts analyzed in the EAW's completed for the Scandia Mine in 1987 and 1999, and to permits that are currently in place for the Scandia Mine site. The scope and work plan would be revised in the following areas:
    - Item 13 – Water Use
    - Item 17 – Surface Water Quality and Quantity
    - Item 21 – Traffic
    - Item 24 – Odors, Noise and Dust
    - Item 26 – Visual Impacts
    - EIS Schedule

A revised Scoping Decision Document is attached for Council review. Staff have highlighted the areas of significant change in the revised document.

PROCESS FOR AMENDING THE SCOPE OF THE EIS

City staff contacted the EQB staff to request guidance on the process for amending the scope of the EIS to include the changes proposed at both the Zavoral Mine and Scandia Mine sites. The EQB staff reviewed the state rules regarding environmental review, and have advised the following:

- The EIS Scope would now address the potential for connected or related impacts involving the transporting of add-rock from the Zavoral site to the Scandia Mine site. It would include the analysis of potential impacts at both the Zavoral Mine and Scandia Mine sites.

- The EQB staff advised the City that the rules do not require a new or revised EAW at the Scandia Mine site. The EIS scope should account for all potential impacts at the Scandia Mine site. EQB staff noted that the EIS process requires a more detailed analysis, looks at a larger number of issues, and requires a more detailed analysis of cumulative impacts, the EIS will provide a higher level of review than a new or revised EAW.

- The City will need to approve a revised Scoping Decision Document for the Environmental Impact Statement (EIS) and publish a revised Notice of Intent to Prepare the Environmental Impact Statement that includes the revised Scoping Document in the EQB Monitor (Minnesota Rules 4410.2100, subparts 8 and 9). The process to revise the scope does not include a requirement for a public hearing. The City Council would approve the revised Scoping Decision Document.

NEXT STEPS

The Council should review the revised Scoping Decision Document at its January 19 meeting. After the Council approves a revised Scoping Decision Document, staff will provide a notice and copy of the revised Scope to the EQB for publication in the Monitor. If the Revised Scope is approved at the January 19 Council meeting, it would be submitted to the EQB by February 1 for publication in the February 8 EQB Monitor.

AECOM will revise the work plan and cost estimate for the EIS based on the revised Scoping Decision Document.

ACTION REQUESTED:

Staff request that the Council review the revised Scoping Decision Document, request changes if needed, and approve the revised Scope for publication and for use in revising the EIS work plan.

CITY OF SCANDIA
RESOLUTION NO. 01-18-10-05

RESOLUTION ADOPTING REVISED FINAL EIS SCOPING DECISION FOR THE ZAVORAL MINING AND RECLAMATION PROJECT, LOCATED IN SECTIONS 18 AND 19, TOWNSHIP 32 NORTH, RANGE 19 WEST IN THE CITY OF SCANDIA, MINNESOTA

WHEREAS, the City of Scandia was the Responsible Governmental Unit in the preparation of the Environmental Assessment Worksheet (EAW) for the proposed Zavoral Mining and Reclamation Project, located in Sections 18 and 19, Township 32 North, Range 19 West in the City of Scandia; and

WHEREAS, the EAW was based on operation of a gravel mine and processing operation on a dormant, un-reclaimed gravel mine site of 114 acres located along St. Croix Trail North (State TH 96) near its intersection with State TH 97, and a portion of the site is located in the St. Croix River District Zone; and

WHEREAS, the comments received indicated that the proposed Zavoral Mining and Reclamation Project is lacking sufficient information to determine the potential for, or significance of, the possible environmental effects of the proposed project, and that additional appropriate studies could be reasonably obtained; and

WHEREAS, the City concurs with the comments received that the EAW does not contain the information necessary to make a reasoned decision about the potential for, or significance of, possible environmental impacts, and that such information is necessary to allow the City to decide whether the project has the potential for significant environmental effects as described in Minnesota Rules 4410.1700, Subpart 7; and

WHEREAS, the City Council of the City of Scandia made a positive declaration on the need for an Environmental Impact Statement (EIS) for the Zavoral Mining and Reclamation Project on March 3, 2009; and

WHEREAS, the City completed a Draft Scoping Decision Document for the EIS, and held a public hearing on the Draft Scoping Decision Document on April 7, 2009 as described in Minnesota Rules 4410.2100; and

WHEREAS, the relevant comments from the public hearing and written comments were incorporated in the Final Scoping Decision Document; and

WHEREAS the City adopted the Final Scoping Decision Document, on April 21, 2009, and published a Notice of Intent to Prepare the Environmental Impact Statement in the EQB Monitor on September 7, 2009; and

WHEREAS Tiller Corporation provided a letter to the City on December 1, 2009, indicating that it has completed additional analyses and determined that the material mined at the Zavoral site will be transported to the Scandia Mine site for use and/or processing at the Scandia site, and processing will not occur at the Zavoral site; and

WHEREAS the City determined that the changes in the Zavoral Mining and Reclamation Project proposed by Tiller require changes in the alternatives, scope and schedule of the EIS, and incorporated the changes in a Revised Final Scoping Decision Document;

NOW, THEREORE, BE IT RESOLVED that the City Council of the City of Scandia adopts the Revised Final Scoping Decision Document, included as "Attachment A" to this resolution, as the basis for the work plan for the EIS for the Zavoral Mine and Reclamation Project.

PASSED by the City Council of the City of Scandia this 19th day of January, 2010.

_____
Dennis D. Seefeldt, Mayor

ATTEST:

_____
Anne Hurlburt, Administrator

Attachment A, Resolution 01-19-10-05
City of Scandia, Minnesota

Zavoral Mining and Reclamation Project
Revised Scoping Decision Document
January, 2010

I. Project Background and Need to Revise the Original Scoping Decision Document of April, 2009

In 2008, Tiller Corporation proposed to operate a gravel mine and processing operation on a dormant, un-reclaimed gravel mine site in the City of Scandia—called the Zavoral Mining and Reclamation Project. The 114-acre site is located along St. Croix Trail North (State Trunk Highway 95 [TH 95]) near its intersection with State Trunk Highway 97 (TH 97). A portion of the site is located in the St. Croix River District Zone. While the area proposed for sand and gravel mining and related processing activities is located outside the limits of the St. Croix River District zone, the application proposed reclamation activities within the River District Zone. The site was mined by multiple operators before it was taken out of production in the 1980's. No environmental review was required for that operation.

The proposed project required completion of an Environmental Assessment Worksheet (EAW) to comply with Minnesota Rules 4410.4300. The City of Scandia was the Responsible Governmental Unit (RGU) for the EAW. On March 3, 2009, the Scandia City Council approved the Findings of Fact and Record of Decision that concluded that an Environmental Impact Statement (EIS) is needed to determine the project's potential for significant environmental impacts.

The City of Scandia completed a Final Scoping Decision Document for the Environmental Impact Statement (EIS) for the Zavoral Mining and Reclamation project in April, 2009. In August, 2009 the City hired a consultant to complete the EIS. The City published a Notice of Intent to Prepare the Environmental Impact Statement in the EQB Monitor on September 7, 2009.

As the EIS analysis progressed, Tiller Corporation conducted additional analyses related to the materials at the proposed site and the range of activities involved in the project. The additional analyses of the deposit at the Zavoral site indicated that this material would be suitable for use as add-rock. The add-rock will likely be used predominately at another mine site in Scandia, called the Scandia Mine. [Add-rock is rock of certain size ranges or quality that is not available at a facility but is needed to the meet specifications for the production of various aggregate products that are produced at the facility.]

As a result of its additional analyses, Tiller has determined that the material mined at the Zavoral site can be utilized without needing to be processed at the Zavoral site. Instead, that material will be transported as "pit run" (gravel as found in natural deposits) material or as add-rock primarily to the Scandia Mine to provide material that will meet the specified gradations of

marketable aggregate. The add-rock would be combined with materials from the Scandia site to meet specifications. The supplemental materials may be processed at the Scandia site, or may be utilized without further processing. Some of the material mined at the Zavoral site may also be transported directly to project sites or other locations for processing. Tiller indicated that the material from the Zavoral site will replace material transported to the Scandia Mine site from various locations, the most recent being Chisago County, Minnesota and Polk County, Wisconsin.

Tiller's analyses of the Zavoral site also noted that reinitiating the use of the well at the Zavoral site at the levels the well is capable of producing would require significant investment to address Minnesota Department of Natural Resources (MnDNR) water appropriation permit requirements for the Zavoral site. Tiller has an existing permit for water appropriations for mining and processing activities at the Scandia Mine site.

Based on the further evaluation of the mining plan for the Project, Tiller has proposed to revise the project to eliminate all aggregate processing activities (including washing) at the Zavoral site. Any processing of material used at the Scandia Mine site would be conducted at the Scandia Mine site. The Scandia Mine is located on Manning Avenue near 225th Street. EAW's were completed for mining and processing operations on that site in 1987 and updated to reflect current operations in 1999. Figure 1 shows the locations of the Zavoral site and Scandia Mine sites.

The proposed changes in mining operations require changes in the Scoping Document for the EIS for the Zavoral Mining and Reclamation Project, including revisions to the EIS alternatives, analyses, and schedule. This document presents the revised scope for the EIS. The EIS will analyze the potential impacts of the proposed mining and reclamation project at the Zavoral site, and the potential for impacts at the Scandia Mine site resulting from the transport of mined material from the Zavoral site to the Scandia Mine site. The analysis of potential impacts at the Scandia Mine site will compare the potential impacts of the proposed activities at the site to the potential impacts analyzed in the EAW's completed for the Scandia Mine in 1987 and 1999 and to permits that are currently in place for the Scandia Mine site.

The City of Scandia will continue to be the RGU for the EIS for the Zavoral Mine and Reclamation Project pursuant to Minnesota Rules 4410.0500, Subpart 1. The EIS will need to meet the requirements of Minnesota Rules 4410.0200 to 4410.7800 (Minnesota Environmental Quality Board rules), which govern the Minnesota Environmental Review Program.

This Revised Scoping Decision Document (SDD) identifies the issues and alternatives that will be examined in depth in the EIS. The SDD also presents a tentative schedule of the environmental review process, and discusses permits needed for the project in relationship to the EIS.

II. Project Alternatives

The MEQB rules require EIS studies to include at least one alternative in each of the following categories, or provide a description of why no alternative is included in the EIS (MN Rule 4410.2300, Item G):

- Alternative sites
- Alternative technologies
- Alternative designs or layouts
- Modified scale or magnitude
- Alternatives that incorporate reasonable mitigation measures identified through the scoping process

Minnesota Rules part 4410.2300, subpart G also states that an alternative may be excluded from analysis in the EIS under the following conditions: (1) when it does not meet the underlying need for or purpose of the project, (2) it would likely not have any significant environmental benefit compared to the project as proposed; or (3) another alternative, of any type, that will be analyzed in the EIS would likely have similar environmental benefits, but substantially less adverse economic, employment or sociological impacts.

The Zavoral Mining and Reclamation Project EIS will include three alternatives, as described below. Each alternative will include a detailed description of the site operations, including type and quality of material to be extracted, depth of proposed mining activities, potential impacts, and mitigation strategies. The alternatives will examine potential impacts of the project at both the Zavoral site and Scandia Mine site.

Alternative #1—Applicant's Preferred Alternative

The project proposer, Tiller Corporation, is proposing to re-open and expand the dormant aggregate mine on the Zavoral property. The Zavoral Mine and Reclamation Project Area location is shown on Figure 1. The proposed project does not include mining into the ground water. The site was mined by multiple operators before it was taken out of production in the 1980's. Aggregate material mined at the Zavoral site will primarily be transported by truck to the Scandia Mine site for use as add-rock. Add-rock is currently hauled to the Scandia Mine site from Chisago County, Minnesota and Polk County, Wisconsin. Tiller indicates that material transported from the Zavoral site will replace the aggregate material currently transported to the Scandia Mine site from those locations. The location of the Scandia Mine site is shown on Figure 1. Some of the material mined at the Zavoral site may be transported directly to construction sites or to other locations for use as pit-run material or add-rock.

The Zavoral site and the Scandia Mine site are both within the Agriculture Zoning District under the City's 2020 Comprehensive Plan, which was the adopted plan at the time of the Tiller application for the Zavoral Mining and Reclamation Project. Mining is an allowed use within the Agriculture zone. A portion of the Zavoral site is located within the St. Croix National Scenic Riverway. Reclamation activities are proposed within this area. Mining is not allowed within the Riverway Zone.

Activities Proposed at the Zavoral Site

The proposed project area includes 114 acres. Mining activity has previously disturbed approximately 56 acres. The site was actively mined in the 1960's through the 1980's. Mining operations included stripping, extraction, crushing, washing, hot mix asphalt production, stockpiling and hauling from the site. The operation was taken out of production without reclamation in the 1980's. All processing equipment has been removed from the site, but it has not been reclaimed. The site has recently been used as a source of aggregate from stockpiles located throughout the site. Much of the material in the stockpiles has been removed over the last eight to ten years, but there are irregular landforms because the site has not been reclaimed.

The proposed project will involve mining and restoration of 64 acres located predominately on the previously disturbed portions of the site. The active mining area will include mining to an additional depth of about 15 feet, and expanding the limits of mining by about 8 acres. In addition, Tiller Corporation is proposing to restore approximately 4 acres of the previously mined area located within the St. Croix Riverway and scenic easement area. Figure 2 illustrates the previously disturbed and undisturbed mining and reclamation areas.

Tiller Corporation is proposing the following activities at the Zavoral site:

- Clearing and grubbing the site of vegetation, as necessary
- Removal of overburden from areas to be mined, and stockpiling the material on the site for potential future use in reclamation
- Excavation of raw aggregate materials
- Transporting mined aggregate materials (pit-run or add-rock); the majority of which will likely be delivered to the Scandia Mine site near Manning Avenue and 225th Street for use in material produced at that site
- The existing well at the Zavoral site will be utilized for dust suppression.
- Fuel storage and storage of related materials such as oil, anti-freeze, grease, and hydraulic fluid
- Reclamation activities, including grading, placing topsoil and seeding.

Mining operations will be conducted on a seasonal basis, typically from April through mid-November. The Zavoral site is proposed to be worked in phases, with the duration of the project expected to be up to 10 years.

The proposed mining operations will result in lowering and a reconfiguration of the surface topography, and the reconfiguration and redirection of the existing surface drainage system.

In general, the reclamation of the Zavoral site is proposed to progress in increments. Reclamation will proceed as areas of mining are completed. The reclamation plan proposes that perimeter areas be sloped and the interior areas backfilled and graded to reclamation grades. Topsoil would be applied to these areas and vegetation established to reduce erosion. The project analyzed in the EAW proposed that the previously-mined area within the St. Croix Riverway be restored during the final phase of mining operations at the site. Tiller Corporation's letter to the City (April 7, 2009) proposed revising the reclamation and phasing plan to include reclamation of the area within the St. Croix Riverway and scenic easement areas

during the first years of operation. The EIS will therefore evaluate the project that includes reclamation of the St.Croix Riverway and scenic easement areas during the first five years of mining operations on the Zavoral site.

Activities at the Scandia Mine Site

Raw aggregate material mined at the Zavoral site will be transported to the Scandia Mine site for processing. Processing of aggregate materials is currently occurring at the Scandia Mine site for materials mined at that site and materials that are transported to the site from various locations, most recently Chisago County, Minnesota and Polk County, Wisconsin. Tiller has indicated that the materials transported from the Zavoral site will replace the materials from Chisago County and Polk County. The following activities will occur at the Scandia Mine site:

- The aggregate material brought in from off-site (add-rock) will be blended with aggregate material mined at the Scandia Mine site or used in the production of hot mix asphalt.
- A portion of the aggregate material transported to the Scandia Mine site may be processed as needed through a series of crushers, screens, conveyors, wash decks and classifiers to produce commercial grade construction aggregates.
- The finished construction aggregate products will be stockpiled at the Scandia Mine site until they are hauled off-site by trucks to various construction sites.

Water for processing activities at the Scandia Mine site will be secured from the existing permitted production well on the site. Water collected in the sediment ponds from washing activities may also be recycled and re-used.

The Scandia Mine site operates under a Conditional Use Permit (CUP) and an Annual Operating Permit (AOP) approved by the City of Scandia. The processing activities listed above are included in the activities authorized by these permits.

The EAW's completed for the Scandia Mine site in 1987 and 1999 included analysis of potential impacts from mining and processing activities at that site, and the proposed reclamation plan for the site. The EIS for the Zavoral Mine site will include analysis of the potential additional impacts of any changes in the activities that will occur at the Scandia Mine site resulting from importing material from the Zavoral Mining and Reclamation Project. No other changes in the current mining operations or the reclamation plan are proposed at the Scandia Mine site as part of the Zavoral Mining and Reclamation Project.

Alternative #2--No-Build Alternative

The No-Build Alternative will be described in the EIS. The No-Build Alternative will describe the potential impacts, outcomes, constraints, benefits and disadvantages, and economics if the existing land uses on the Zavoral and Scandia sites were to continue. The description will be based on the existing and allowed use of the site for Agricultural and Rural Residential purposes, and will make projections or forecasts based on this use, to identify the No-Build Alternative effects and impacts. The No-Build Alternative does not include the Reclamation Activities on previously mined areas that are included in Alternative #1.

Scale of Magnitude Alternatives

One alternative will be considered that proposes a different scale or project magnitude. Alternative #3 includes the same project area and activities as described for the Preferred Alternative. It proposes an accelerated time frame for mining activities.

Alternative #3—Mining and Reclamation Activities—Evaluate Reduced Time Frame for Mining Activities

This Alternative will focus on the impacts of the proposed activities if the overall time frame for mining at the Zavoral site is up to five years rather than up to ten years, as proposed in the Preferred Alternative.

Alternative Sites

Off-site alternatives are not being investigated because they do not meet the project purpose and need of making use of significant aggregate resources that are found within the Zavoral Mine site. Site alternatives are limited to the presence of the natural resource. This resource is located within the Metropolitan Area, and may cost-effectively serve the needs of the region. A regional study by the Metropolitan Council, Department of Natural Resources and the University of Minnesota in 2002, titled Aggregate Resources Inventory of the Seven-County Metropolitan Area identified significant aggregate resource areas within the Metro Region, including the general area in which the Zavoral Mine and Reclamation Project is located, and describes the Region's need for these resources in the future.

Technology Alternatives

Technology alternatives are not within the scope of the Zavoral Mine and Reclamation Project and will not be considered in the EIS. Best practicable technologies for the various activities will be utilized as part of the preferred alternative.

Modified Scale Alternatives

Modified design or layout alternatives will not considered in the EIS. The area represented as the Preferred Alternative (Figure 1) may be modified depending upon the results of the analysis that will be completed for the EIS and the permit requirements for operations on the site.

Project Site with Reasonable Mitigation Measures

MEQB rules require consideration of mitigation measures identified through comments on the EAW. The EIS will consider all relevant mitigation measures suggested through public and agency comments and will recommend incorporation of reasonable mitigation measures into project design and permitting as warranted.

III. EIS Issues

MEQB guidance documents indicate that the purpose of scoping is to streamline the EIS process by identifying only potentially significant and relevant issues, and defining alternatives to be analyzed in the EIS. Issues that were not adequately addressed in the EAW and require additional data gathering and analysis in the EIS were identified in the Findings of Fact and Record of Decision for the Zavoral Mining and Reclamation Project (March 3, 2009). These issues are discussed in further detail below, including the potential significance of each issue and the extent of analysis needed so that each issue is adequately addressed in the EIS. Mitigation measures, permitting and approvals, public comments, and the results of analyses, existing data, and separate studies will all be addressed in the EIS, to fully disclose the potential impacts from the alternatives.

The analyses will focus primarily on the activities proposed at the Zavoral site. The EIS will also analyze the potential additional impacts and any changes in activities at the Scandia Mine site as a result of importing add-rock from the Zavoral site to the Scandia Mine site. The analysis of potential impacts at the Scandia Mine site will compare the potential impacts of the proposed activities at the site to the potential impacts analyzed in the EAW's completed for the Scandia Mine in 1987 and 1999 and to permits that are currently in place for the Scandia Mine site.

EAW Items Screened and Removed from Further Review

The following items were adequately assessed in the EAW and were found to be not relevant or so minor that they will not be addressed in the EIS:

- Water surface use (Item 15) –impacts to boating and recreational use
- Water quality: wastewaters (Item 18)—impacts to municipal or on-site sewage treatment systems
- Vehicle-related air emissions (Item 22)
- Archaeological, historical or architectural resources (Item 25a)
- Prime or unique farmlands (Item 25b)
- Impact on infrastructure and public services (Item 28)

Topics to be Included in the EIS (Item numbers below are those used in the EAW):

Item 9—Land Use/Potential Environmental Hazards/Reclamation Plan

The general description of the local government land use plans and policies included in the Zavoral Mine and Reclamation Project EAW was adequate.

The analysis in the EIS should address the following land use issues for each of the Zavoral Mine site alternatives included in the EIS:

Land Use

- Assess the impacts of each of the alternatives on the current and future land use in the areas that will be impacted by the project—primarily the City of Scandia and St. Croix Wild and Scenic Riverway District for the Zavoral site.

Reclamation Plan

- Describe the reclamation plans for the Zavoral site under each alternative in detail. The reclamation plan shall include the detailed plans for grading, plant communities to be established on the site, phasing and timing of reclamation activities, planting schedules, habitat reconstruction and invasive species management, and monitoring and maintenance to ensure the success of reclamation efforts.
- Evaluate the compatibility of the Zavoral site alternatives with existing and future land uses, and the potential impacts of the reclamation plans on habitat areas and future land use in the area.
- Coordinate and consult with the Minnesota DNR, National Park Service, City of Scandia, and others to develop the Zavoral site reclamation plans. Consideration should be given to reclamation requirements for areas within the St. Croix River District, which may be different from those for site areas outside the District.

Economic Impacts

- Determine the area(s) and types of potential economic and social impacts of the proposed project
- Quantify the social, economic and environmental impacts of each Zavoral site alternative on the local community, including impacts to the following:
    - local economy
    - tourism (including impacts to the St. Croix Riverway and City of Scandia)
    - property values
    - public services such as police, fire or other costs to city services
- Analyze the potential impacts of each of the Zavoral site alternatives on the local economy, tourism, property values, and public services
- Identify strategies that will be implemented to avoid, minimize or mitigate for the potential impacts.
- Identify coordination completed with the City of Scandia, National Park Service, Washington County, and others to complete the analysis and identify mitigation strategies

Item 10—Cover Types

The Zavoral Mine and Reclamation Plan EAW did not identify existing wetland cover types in the Zavoral site project area and did not indicate the proposed project's potential impacts to this cover type.

The analysis in the EIS should indicate the existing area of all cover types in the Zavoral site project area, and the acreages of cover types that would result from each of the alternatives.

Item 11—including 11a—Fish, Wildlife, and Ecologically-Sensitive Resources and Item 11b—Threatened and Endangered Species

The Zavoral Mine and Reclamation Project EAW included a list of threatened and endangered plant and animal species based on published lists from the Minnesota DNR's Natural Heritage Program. The lists noted a number of sensitive resources and threatened species within the project area and the area of potential impact. The Carnelian-Marine St. Croix Watershed District (CMSCWD) noted that 65 occurrences of rare features (plants, animals and habitat areas) have been documented with a 1 mile radius of the Zavoral site. CMSCWD noted that no known focused field surveys have been conducted for rare elements within or near the project boundaries and that the high concentration of rare elements within one mile of the project site suggests that the likelihood of rare features within the project area is high.

The analysis in the EIS should include the following for each of the Zavoral site alternatives included in the EIS:

- Determine the area of potential impacts of the proposed project and the Zavoral site alternatives on natural habitats and protected species.
- Complete a biological assessment and Protected Species Field Survey of the Zavoral site area and the area of potential impacts. The survey of plants, animals and land and water habitats should be completed by surveyor pre-qualified by the DNR. The assessment would identify and map the presence of all ecologically sensitive resources (rare, threatened and endangered plant and animal species and habitats) in the project area, along Zavoral's stream and surrounding areas that are potentially impacted by the project. The assessment would assess the quality and characteristics of the resources in relation to the proposed project and potential impacts. The Draft EIS should include exhibits showing the location of the species or habitats.
- Analyze the potential impacts of each of the Zavoral site alternatives on the sensitive resources (species and habitats), and the reversibility of the potential impacts.
- Identify strategies that will be implemented to avoid, minimize or mitigate for the potential impacts.
- Identify coordination completed with the Minnesota DNR, U.S. Fish and Wildlife Service (USFWS), or other agencies to complete the biological assessment and Protected Species Survey, discuss proposed project activities and reclamation plans and address potential impacts by avoiding, minimizing or reducing the project impacts and incorporating appropriate elements in the reclamation plan for the site.

Item 12—Physical Impacts on Water Resources

The Zavoral Mine EAW did not adequately identify the wetland resources and other surface waters within the Zavoral site project area and the area of potential impacts.

The analysis in the EIS should include the following for each of the Zavoral site alternatives included in the EIS:

- Identify and map the presence of all surface water resources in the Zavoral site project area and area of potential impact of each of the alternatives (rivers, streams, wetlands, lakes). The Draft EIS should include exhibits showing the location of these resources.
- Analyze the current quality and regulatory status of these resources, potential physical impacts of each of the alternatives on the resources, and the reversibility of the potential impacts.
- Identify mitigation strategies that will be implemented to address the potential impacts.
- Identify coordination completed with the Washington Conservation District (WCD), Carnelian-Marine St. CroixWatershed District (CMSCWD) or other agencies to complete the mapping, assessment and mitigation strategies.

Item 13—Water Use

The EAW indicated that an existing production well on the Zavoral site would be used as the water supply well for the preferred scenario. The EAW did not analyze the potential impacts of the water use on groundwater resources, groundwater-dependent resources, or local wells in the project area or area of potential impact.

Tiller revised the proposed project activities in early December, 2009 to limit the use of water from the existing well to what is required for dust control at the Zavoral site. This would reduce the amount of groundwater use to a level below the threshold that requires a water appropriations permit from the Minnesota DNR. Tiller will use water from an existing permitted well at the Scandia Mine site if washing the material that will be transported from the Zavoral site to the Scandia Mine site is necessary. Past production of products that required washing at the Scandia Mine site has been very limited.

The EIS will analyze the potential impacts of proposed water use for each of the alternatives included in the EIS, as follows:

Zavoral Site:

- Identify the quantity and source(s) of water to be used for dust control activities.
- Quantify the potential water use.
- Identify the potential for Zavoral site water use to impact groundwater resources, groundwater-dependent resources and local wells in the project area.

Scandia Mine Site:

- Identify and evaluate the potential additional water use at the Scandia Mine site due to the import of material from the Zavoral site and determine if water use at the Scandia Mine site will remain consistent with levels evaluated in the 1987 and 1999 EAW's for the site and current water appropriation permit.

Mitigation:

- Develop strategies to avoid, minimize or mitigate for the potential impacts.

Item 14—Water-Related Land Use Management Districts

The Zavoral Mine site project area includes a portion of the St. Croix River District. The project has the potential for impacts to the River District and the federally-designated National Scenic Riverway. The Zavoral Mine and Reclamation Plan EAW analysis was limited to a discussion of the restoration proposed within the River District under the preferred alternative.

The analysis in the EIS should include the following for each of the Zavoral site alternatives included in the EIS:

- Identify potential adverse effects on the natural, cultural and recreational values of the Riverway. Potential adverse effects may include impacts to the use, purpose, and values of the Riverway District, alteration of the setting, or deterioration of water quality.
- Consult with the National Park Service (managing agency for the Riverway District) regarding the impacts analysis and identification of strategies to avoid, minimize and mitigate for the impacts
- Identify the measures that will be utilized to avoid, minimize or mitigate the identified impacts.

Item 16—Erosion and Sedimentation

The EAW included a general discussion of erosion and sedimentation, and potential controls and best management practices that could be implemented to avoid or minimize the impacts of erosion and sedimentation resulting from the preferred alternative.

The EIS analysis should include the following for each of the Zavoral site alternatives included in the EIS:

- Identify the area of potential impacts of erosion and sedimentation from the proposed project under each of the alternatives.
- Analyze the potential impacts of erosion and sedimentation on each of the resources within the project area and area of potential impact under each of the alternatives, particularly including potential impacts to high quality and unique resources, such as to the St. Croix River, Zavoral Creek, and other streams on the site, seeps, wetlands and aquatic habitats.
- Identify specific measures that will be implemented to avoid, minimize or mitigate for the identified impacts.

Item 17—Surface Water Quality and Quantity

The Zavoral Mine and Reclamation Plan EAW indicated the direction of stormwater runoff from the Zavoral site, and indicated that a stormwater pollution prevention plan would be completed to obtain an NPDES permit. The EAW did not identify all of the waters that would receive stormwater runoff from the site, including Zavoral's Creek, other creeks on the site, and area wetlands. The project site is located in the subwatershed of Zavoral Creek, a trout stream that is a tributary to the St. Croix River. The St. Croix is an Outstanding Resource Value Water in both Minnesota and Wisconsin, has been identified by the MPCA as an impaired water. Lands adjacent to the creek and other portions of the subwatershed area contain unique and high-value resources that have been identified by the CMSCWD and other agencies. The EAW did not quantify the runoff or impacts of runoff on the quality of the receiving waters to these resources.

The EIS analysis will include the following for each of the alternatives:

Zavoral Site:

- Identify and map the groundwater resources and groundwater-dependent resources (springs, wetlands and creeks) within the Zavoral site project area and area(s) of potential impacts.
- Identify all of the surface waters that will receive runoff from the Zavoral site, and the quality of those waters.
- Quantify the expected runoff from the site and impacts on the quality of receiving waters under each of the alternatives, including impacts of pollutants such as phosphorus, Total Suspended Solids (TSS), heavy metals, polycyclic aromatic hydrocarbons (PAH's), volatile organic compounds (VOC's) and temperature
- Identify potential impacts to waters of Special Concern, including the St. Croix River and Zavoral's Creek.

Scandia Mine Site:

- Review historic operational data for the Scandia Mine site and identify and evaluate potential additional impacts to occur at the Scandia Mine site as a result of importing material from the Zavoral site, including areas of disturbance and impacts to downstream water resources.

Mitigation:

- Identify specific measures that will be used to monitor potential impacts and avoid, minimize or mitigate the impacts of stormwater runoff to the receiving waters.

Item 19—Geologic Hazards and Soil Conditions--

This element of the EIS should include analysis of impacts to the geology and soils of the Zavoral site relating to geologic hazards or soil conditions. It should be noted that

washing will not occur at the Zavoral site under this Revised Scope and, as a result, no settlement ponds will be constructed at the Zavoral site.

Item 20b and c—Solid Waste, Hazardous Waste, Storage Tanks

Based on the analysis completed for Item 19, this section should analyze the following for each of the Zavoral site alternatives included in the EIS:

- Identify any potential impacts of toxic waste, hazardous waste or storage tanks at the site on surface water resources, groundwater resources, groundwater-dependent resources, or local wells under each of the Zavoral site alternatives.
- Identify strategies that will be implemented to monitor groundwater resources and avoid, minimize or mitigate for the potential impacts at the Zavoral site.

Item 21—Traffic

The Zavoral Mine and Reclamation EAW included a traffic analysis for the preferred alternative, but did not evaluate impacts to recreation traffic on TH 95 and TH 97, including access to the Riverway and State Parks, pedestrian and bicycle facilities in the project area. The Zavoral Mine and Reclamation EAW also did not analyze potential impacts of traffic due to proposed hauling of aggregate materials to the Scandia Mine site.

The EIS should include the following for each of the Zavoral Mine site alternatives included in the EIS:

Zavoral site:

- Analyze and evaluate traffic conditions under each of the alternatives proposed for the Zavoral site, and potential conflicts with recreational traffic and impacts to recreation traffic in the area.
- Identify current and anticipated bicycle and pedestrian facilities in the Zavoral site project area and area of potential impacts, and analysis of impacts to these facilities under each of the alternatives.

Scandia Mine site:

- Revise the traffic analysis to address hauling material to the Scandia Mine site. Historic operational data for the Scandia Mine site and proposed hauling routes and traffic volumes will be evaluated to address safety issues. Safety issues include sight lines and stopping distances for traffic on TH 95 (Zavoral site) and TH97, Manning Avenue and Lofton Avenue (Scandia Mine site).

Mitigation:

- Identify measures to avoid, reduce or mitigate for the potential impacts.
- If the preferred alternative would sever an existing major route for non-motorized traffic, the EIS will evaluate any reasonable alternative route, or demonstrate that such a route exists.

Item 23—Stationary Source Air Emissions

The Zavoral Mine and Reclamation Plan EAW included a general discussion of potential types and sources of air emissions under the preferred alternative, but did not quantify the emissions or analyze potential impacts on resources within the project area or area of potential impacts.

The EIS should include the following analysis for each of the Zavoral Mine Site alternatives included in the EIS:

- Identify the area that may be impacted by air emissions from the proposed project under each of the alternatives.
- Identify and quantify the type, sources and composition of emissions from all sources at the site, including fugitive dust sources, under each of the alternatives.
- Quantify the impacts of the air emissions on air quality and water quality, specifically including impacts to the St. Croix Wild and Scenic Riverway.
- Identify pollution prevention techniques and strategies that will be used to avoid, minimize and mitigate for the identified impacts.

Item 24—Odors, Noise and Dust

The Zavoral Mine and Reclamation Plan EAW indicated that the project will operate within air emissions and noise limits established by the MPCA. It listed some strategies that will be used to reduce noise and dust impacts under the preferred alternative. It did not quantify the current noise conditions in surrounding areas and the noise and dust that will be created by operations at the site, or changes to the impacts of noise and dust at the Scandia Mine site, or on the surrounding areas of both sites.

The EIS should include the following for each of the Zavoral site alternatives included in the EIS:

Noise—Zavoral Site:

- Describe the noise sensitive areas and habitats (both land-based and river-based receptors, such as residences, parks, recreation areas such as the St. Croix River, Wisconsin bluff areas, and sensitive wildlife habitats) for the Zavoral site, including information on the number and types of activities that may be affected.
- Quantify the current ambient noise levels near the Zavoral site in the noise-sensitive areas identified above: on the St. Croix River (where use by recreationists is expected); at the National Park Service primitive camp sites along the Riverway; on adjacent residential properties; on the recreational trails paralleling TH 95 and TH 97.
- Develop a model that will predict future noise levels near the Zavoral site and account for site-specific conditions such as topography, truck traffic, and operating hours.

- Quantify the extent of the impact (in decibels) in each sensitive area identified above, under each of the alternatives, including noise from mining activities, and truck traffic at the Zavoral site.
- Analyze expected noise under each of the Zavoral site alternatives based on noise standards for each land use.

Noise—Scandia Mine Site:

- Identify and evaluate the potential for additional noise impacts to occur due to the import of aggregate material from the Zavoral Mine site to the Scandia Mine site.

Dust—Zavoral Mine Site:

- Quantify non-stationary dust that will be generated from the Zavoral site operations, such as truck traffic.
- Analyze impacts of dust pollution on surrounding areas and resources, including the St. Croix River.

Dust—Scandia Mine Site:

- Identify and evaluate the potential for additional dust impacts at the Scandia Mine site due to the import of aggregate material from the Zavoral site to the Scandia Mine site.

Mitigation:

- Identify noise mitigation strategies as needed to avoid, minimize or mitigate for identified noise impacts.
- Identify strategies to avoid, reduce or mitigate for identified impacts of dust generated by operations under each of the alternatives.

Item 26—Visual Impacts

The Zavoral Mine and Reclamation Plan EAW stated that the site will not be visible from the St. Croix River, but did not provide an analysis to support this claim. It did not indicate whether equipment or structures on the site would be visible from the St. Croix Riverway, or other recreational and scenic areas. It should be noted that under the Revised Scope, there will not be stockpiling of material or processing equipment at the Zavoral site.

The EIS should include a viewshed analysis that addresses the following for each of the Zavoral Mine site alternatives included in the EIS:

Zavoral Mine site:

- Identify the key view areas at the Zavoral site, through coordination with the National Park Service, City of Scandia, and others as needed. Key view areas are likely to include neighboring residences, the St. Croix River, nearby bluff areas in Wisconsin, and TH 95 and TH 97.

- Develop a model in ArcGIS or other software that models site specific conditions for the Zavoral site such as topography, vegetation, seasonal conditions, proposed lighting and any other features related to project operation.
- Accurately represent the views of the Zavoral site from key view areas through drawings, photos or other imaging methods that clearly shows the views of the site so that they may be easily understood by reviewing agencies and the public.
- Complete a written analysis describing the visual impacts of the Zavoral site.

Scandia Mine site:

- Identify and evaluate the potential for additional visual impacts at the Scandia Mine site due to the import of material from the Zavoral site to the Scandia Mine site.

Mitigation:

- Identify the strategies to avoid, minimize or mitigate visual impacts to key viewing areas.

Item 27—Compatibility with Plans and Land Use Regulations

The Zavoral Mine and Reclamation Plan EAW focused its analysis on impacts to City of Scandia plans and land use regulations. The EIS should also analyze the relationship of the proposed project to the water resource plans of the Carnelian-Marine Watershed District and St. Croix Riverway Management Plan (2002).

Item 29—Cumulative Impacts

This section should identify the potential cumulative impacts of all alternatives analyzed for the EIS. It should address the potential impacts of any related or anticipated future project in the area.

IV. Phased or Connected Actions

There are no phased elements associated with the project.

The Scope of the EIS established in this document addresses the potential for connected or related impacts involving the transporting of add-rock from the Zavoral site to the Scandia Mine site.

V. EIS Schedule

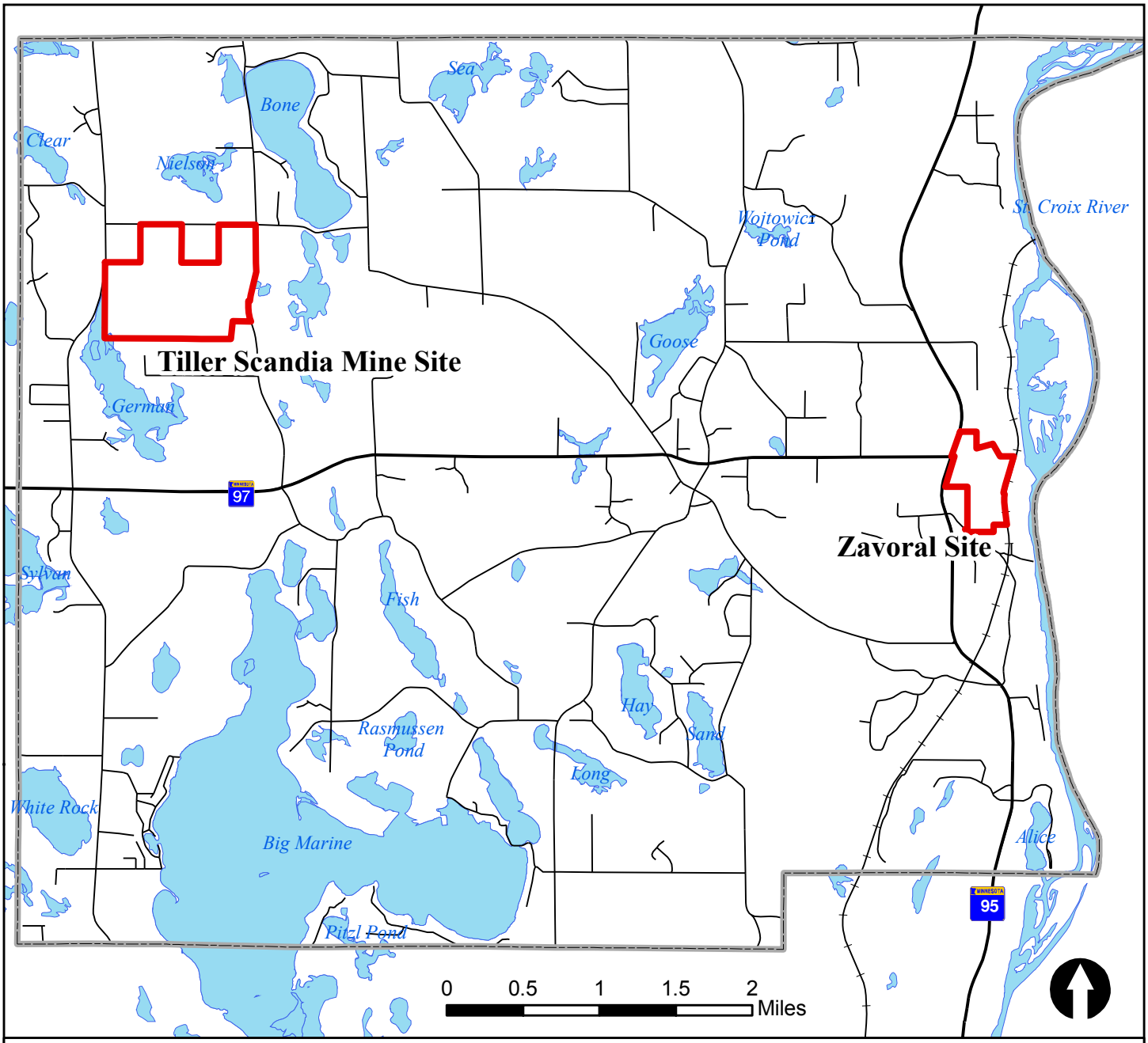
March 23, 2009	Record of Decision and Positive Declaration for EIS for Zavoral Mine and Reclamation Project published in EQB Monitor
April 7, 2009	Public Scoping Meeting
April 21, 2009	Final Scoping Decision
Sept. 7, 2009	Notice of Intent to Prepare the EIS published in EQB Monitor
Jan. 19, 2010	Scandia City Council approves the revised Scoping Decision
February 8, 2010	Revised Notice of Intent to Prepare the EIS published in EQB Monitor
Feb.-June, 2010	Draft EIS preparation
July-Aug., 2010	Draft EIS Comment Period and Public Meeting The Draft EIS will be noticed in the EQB Monitor, and mailed to the EQB's distribution list, which includes local, state and federal agencies and others. Copies will be available at the City for review. The City will schedule a Public Meeting to hear comments on the EIS.
Aug.-Sept., 2010	Final EIS Preparation
October, 2010	Final EIS Adequacy Determination The City (RGU) will determine whether the EIS is adequate, based on the comments received, responses to comments, public meeting comments, and criteria prescribed in Minnesota Rules 4410.2800, subpart 4.

VI. Special Studies or Research

Special studies that will be completed for the EIS are described under each Item discussed in section III above. These will detailed include surface water and ground water analyses; air, noise and dust analyses; and a detailed visual impacts analysis.

VII. Governmental Permits or Approvals

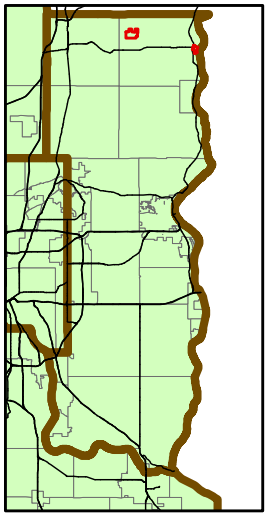
The EIS will identify all permits and approvals potentially required for this project. The EIS will not necessarily contain all information required for a decision on those permits. No permits have been designated to have all information developed concurrently with the preparation of the EIS. No permits will require the preparation of a record of decision pursuant to Minnesota Rules 4410.2100, Subpart 6D. Coordination with Carnelian-Marine St. Croix Watershed District, Washington County, the Minnesota DNR, MPCA, National Park Service, and U.S. Army Corps of Engineers and other permitting and reviewing agencies was initiated during the EAW process and will occur throughout the EIS process.



Location Map

Zavoral Mining and Reclamation Project
Scandia, Minnesota

Washington County



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