

FINAL SCOPING DECISION

JUNE 4, 2008

AGGREGATE INDUSTRIES NELSON MINE BACKWATER EXPANSION

1.0 INTRODUCTION AND PURPOSE OF THE PROJECT

1.1 BACKGROUND

The City of Cottage Grove (City) in cooperation with the United States Army Corps of Engineers (USACE) will prepare a joint state and federal Environmental Impact Statement (EIS) for the Aggregate Industries' proposed expansion of its existing "Nelson" sand and gravel mine into a privately-owned portion of the backwaters of the Mississippi River. The property was originally upland but was inundated by the impoundment created by Lock & Dam #2.

Mining would be conducted in approximately 229 acres of the proposed expansion area. The main processing plant will remain in the existing location for the foreseeable future and would be used for the crushing, screening, washing and barge loading of approximately 1,500,000 tons of aggregate per year.

A floating dredge, similar to the existing dredge, would be employed to work the proposed expansion area. The dredge will be powered by electricity. The power cables will follow the dredge into the backwater aboard the floating conveyors.

The onboard processes will include screening, primary crushing and de-sanding. In the first few years of mining, the excess sand and fine particles, will be pumped to create a barrier dike between the Lower Grey Cloud Island and the first barrier island and to reclaim previously mined areas on the main island. Once a large enough depression is created by the underwater mining in the backwater area, the excess sand will be pumped back into this depression.

As the excavated basin increases in size, barrier dikes will be constructed between the first barrier island and the second and third barrier islands. Preliminary studies indicate that the deepening mine basin will provide enough increased flow capacity to permit the construction of these dikes without causing an increase in flood stage upstream. The purpose of these barrier dikes is to protect the mining area from flood debris, ice and excessive sedimentation.

Mining in the expansion area will take approximately twenty (20) years. Reclamation will consist of backfilling the under water excavation close to the shoreline of the main island and adjacent to the barrier islands. This backfilling will stabilize the uplands and create underwater slopes that are stable and safe. The central part of the excavation area will be partially filled with excess sand. The resulting lake will be approximately 100 feet deep.

The Scoping Decision Document is a companion to the Scoping EAW prepared for the project. The purpose of the Scoping Decision Document is to identify those project alternatives and environmental impact issues that will be addressed in the EIS. The Scoping Decision Document also presents a tentative schedule of the environmental review process.

1.2 SELECTION OF APPROPRIATE ENVIRONMENTAL REVIEW DOCUMENT

The EIS is mandatory for this project pursuant to Minnesota Rules part 4410.4400 Subpart 1.

An EIS must be prepared for projects that meet or exceed the threshold of any of subparts 2 to 24. Subpart 9: Nonmetallic mineral mining. B. For development of a facility for the extraction or mining of sand, gravel, stone or other nonmetallic minerals, other than peat, which will excavate 160 acres of land or more to a mean depth of ten feet or more during its existence, the local government unit shall be the RGU.

Since the project involves work in the Mississippi River, it will require a permit from the US Army Corps of Engineers (USACE) for work in a navigable water of the United States. The USACE has determined that the granting of such a permit would likely be a major federal action that could significantly affect the quality of the human environment. Such a federal action requires the preparation of a federal EIS pursuant to the National Environmental Policy Act (NEPA) (42 U.S.C. SS 4321-4347) and the USACE's implementing regulations (40 C.F.R. parts 1500-1508). Therefore, involving the US Army Corps of Engineers as co-lead agency with the City of Cottage Grove in preparation of the EIS will ensure that the requirements of the National Environmental Protection Act are met. The USACE will serve as co-lead agency with the City of Cottage Grove in preparation of the EIS.

1.3 PURPOSE AND NEED OF THE PROJECT

The purpose and need of the expansion of the sand and gravel mining operation is to provide continued supplies of construction quality aggregate to the Twin Cities and local markets.

1.4 THE SCOPING PROCESS

The Scoping Environmental Assessment Worksheet (SEAW) and the Scoping Decision Document (SDD) were filed with the MEQB and notice for its availability for public review and comment for the 30-day public review and comment period was published in the EQB Monitor on April 21, 2008. A copy of the DSEAW and DSDD was sent to all persons on the MEQB Distribution List, members serving on a Technical Advisory Committee for this project, and to persons who requested a copy. The DSEAW and DSDD were also made available on the City of Cottage Grove's website, Cottage Grove City Hall, and at the Washington County Library – Park Branch.

The City of Cottage Grove received six written comments on the DSEAW and DSDD. Five of the written comments received were from regulatory agencies. One written comment was from a

landowner on Lower Grey Cloud Island. One oral comment was received from the Minnesota Department of Transportation and one oral comment was received from another landowner on Lower Grey Cloud Trail. Comments were received from:

- a. Minnesota Department of Natural Resources (also incorporating the DNR comment letter dated August 24, 2007)
- b. Minnesota Pollution Control Agency
- c. Metropolitan Council
- d. Minnesota Office of the State Archaeologist
- e. United States Department of the Interior – National Park Service
- f. Minnesota Department of Transportation
- g. Rod Hale, 11701 Grey Cloud Trail South; Cottage Grove, MN
- h. Minnesota District Inc., 11975 Grey Cloud Trail South; Cottage Grove, MN (incorporating previous comment letter dated August 20, 2007)

The response to public comments was developed to address the comments and is contained in the Record of Decision (Finding of Facts) for Adoption of Final Scoping Decision Document; adopted by the Cottage Grove City Council on June 4, 2008. The DSDD was revised based upon the public and agency comments.

Public review and comment on the Scoping Decision Document was conducted as prescribed in MEQB rules part 4410.2100. This Minnesota state process has included all procedural and substantive requirements to satisfy scoping for preparation of a federal EIS under NEPA.

2.0 PROJECT ALTERNATIVES

The MEQB rules require that an EIS include at least one alternative of each of the following types, or provide an explanation of why no alternative is included in the EIS (Minnesota Rules part 4410.2300, subpart G): alternative sites, alternative technologies, modified designs or layouts, modified scale or magnitude, and alternatives incorporating reasonable mitigation measures identified through comments received during the EIS scoping and draft EIS comment periods. The alternative of no action shall also be addressed.

Minnesota Rules part 4410.2300, subpart G directs that an alternative may be excluded from analysis in the EIS if “it would not meet the underlying need for or purpose of the project, it would likely not have any significant environmental benefit compared to the project as proposed, or 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.” Selection or dismissal of alternatives will be documented in the EIS.

2.1 PROPOSED ALTERNATIVE

The EIS will provide a detailed description of the proposed project and discuss the potential environmental and socioeconomic effects outlined in Section 3.0.

2.2 NO ACTION ALTERNATIVE

The EIS will describe the expected condition if the proposed project is not developed, with respect to the potential environmental and socioeconomic effects outlined in Section 3.0.

2.3 SITE ALTERNATIVES

The MEQB rules allow the RGU to exclude alternative sites if other sites do not have any significant environmental benefit compared to the project as proposed, or if other sites do not meet the underlying need and purpose of the project. The MEQB's Guide to Minnesota Environmental Review Rules lists a number of factors for the RGU to consider when deciding whether alternative sites would meet the underlying need for or purpose of the project.

The City and USACE do not propose to evaluate an alternative mine site for this project. An alternative mine site would not meet the underlying need or purpose of the project. The proposed expansion is viable because of the continuation of the sand and gravel deposit and because of the existing, historic investment in processing equipment and transportation systems. Since mining began on the Island in 1953, Aggregate Industries has developed a unique and substantial combination of water-based mining, processing and transportation systems. The Company does not own or have access to comparable aggregate reserves in the general area and does not have eminent domain power to condemn them if they existed. If the proposed expansion area is not used, then the investment in equipment and facilities and transportation infrastructure into the Twin Cities will be lost since it will not be of value without a mineral resource.

2.4 TECHNOLOGY ALTERNATIVES

The City and USACE do not propose to evaluate alternative mining technologies. The proposed project uses conventional underwater mining technology that has been used and proven at the existing Nelson mining operation and elsewhere in the world. Other underwater mining technologies are not suitable for the depths and materials proposed.

2.5 MODIFIED DESIGNS OR LAYOUTS

The City and USACE do propose to evaluate alternative mine phasing and reclamation plans.

2.5.1 Mine Phasing

The impacts associated with mining in an east to west direction will be evaluated.

2.5.2 Reclamation Plan

The proposed reclamation plan will evaluate different underwater bathymetry as mitigation alternatives are suggested in the EIS.

2.6 SCALE OR MAGNITUDE ALTERNATIVES

The City and USACE do not propose to evaluate alternative scale or magnitude of the project. The demand for aggregate products in this market coupled with the need to keep production above a minimum threshold in order to be cost effective, are such that alternative (reduced) scale/magnitude would not meet the underlying need for or purpose of the project or would likely not have any significant environmental benefit compared to the project as proposed.

2.7 INCORPORATION OF MITIGATION MEASURES IDENTIFIED THROUGH PUBLIC COMMENTS

Minnesota Rules Chapter 4410.2300 identifies that the EIS shall include mitigation measures that could reasonably eliminate or minimize any adverse environmental, economic, employment, or sociological effects of the project. To meet this requirement the EIS will evaluate and discuss mitigation measures to address adverse effects identified as a result of analyses. The EIS will consider all mitigation measures suggested through public and agency comment, as well as mitigation needed due to regulatory requirements, and define mitigation measures for those potential impacts identified in the EIS analysis process. Those mitigation measures that were identified but not carried forward for analysis will be discussed briefly as well as the reasons for their elimination.

3.0 EIS ISSUES

The following issues have been identified and described in the Scoping EAW and are categorized below by significance and amount of additional analysis required in the EIS. Mitigation measures that could reasonably be applied to eliminate or minimize adverse environmental effects will be identified in the EIS.

3.1 THE TOPIC HAS BEEN ADEQUATELY ANALYZED IN THE SCOPING EAW

The topic is not relevant or so minor that it will not be addressed in the EIS. The Scoping EAW will be appended to the EIS for reference; the relevant EAW number is provided below in parents () after each topic.

- Water Use (Item 13)
- Erosion and Sedimentation (Item 16)
- Water Quality – Surface Water runoff (Item 17)
- Solid Waste, Hazardous Waste, Storage Tanks (Item 20)
- Vehicle-related Air Emissions (Item 22)
- Stationary Source Air Emissions (Item 23)
- Dust, Odors and Noise (Item 24)
- Visual Impacts (Item 26)
- Impact on Infrastructure and Public Services (Item 28)
- Other Potential Environmental Impacts (Item 30)

3.2 SIGNIFICANT IMPACTS ARE NOT EXPECTED (Information beyond that in the Scoping EAW will be included in the EIS).

3.2.1 Land Use (Item 9)

The EIS will discuss potential land use conflicts to nearby residences, the Camp Galilee, businesses, the river and Spring Lake Park Reserve. These potential conflicts will also be addressed in other sections of the EIS, including physical alteration of water resources, noise impacts, traffic and access/haul roads. The potential for conflict with the Army Corps of Engineer's dredging and disposal activities and sediment transport will also be addressed.

3.2.2 Cover Types (Item 10)

Specific mining details will be developed prior to or during EIS preparation; the EIS will include updated cover type information and "before and after" cover type maps, and will describe the conversion of existing land cover types that will result from project implementation and reclamation. Regulatory mitigation requirements will be identified and discussed.

3.2.3 Water Use (Item 13)

The potential impact to the groundwater from the proposed mining and water management plans and from the temporary opening of the inland lake to the river will be analyzed in the EIS.

3.2.4 Water-Related Land Use Management District (Item 14) and Compatibility with Plans and Land Use Regulations (Item 27)

The project's relationship to water-related land use management districts will be discussed in the EIS. The compatibility of the project with respect to the US Army Corps of Engineers flowage easement, the City's Floodway and Flood Fringe Districts, the zoning ordinance and the commercial excavation ordinance and the Mississippi National River and Recreation Area will be investigated. Discussion will include the MNRRA CMP policies and compatibility of the proposed project with the CMP.

3.2.5 Water Surface Use (Item 15)

The EIS will include a discussion of the potential impact on surface water uses in the area, including boating and hunting.

3.2.6 Geologic Hazards and Soil Conditions (Item 19)

The EIS will include a discussion of the potential for groundwater contamination from process chemicals and hazardous materials used or stored at the project site. Measures to prevent and contain spills from fuel cells and maintenance/repair of mining equipment will be identified in the EIS.

3.2.7 Traffic (Item 21)

The EIS will evaluate the proposed road access to the conveyor landings and dredge slips and evaluate any potential traffic impacts and mitigation as appropriate.

3.2.8 Nearby Resources (Item 25)

The EIS will discuss the potential impacts of the project on archaeological, historic or architectural resources, Spring Lake Park, the Mississippi National River and Recreation Area and scenic views from surrounding highlands.

3.2.9 Socioeconomics

The general social and economic impacts of the project will be studied in the EIS. This will include the direct and indirect effects on local economic development, tax base and demand for public services.

3.2.7 Mine Reclamation

The EIS will discuss the draft reclamation plans and evaluate practical and reasonable reclamation options as they pertain to identified impacts and mitigation strategies.

3.3 POTENTIALLY SIGNIFICANT IMPACTS MAY RESULT (Information beyond what was in the EAW will be included in the EIS.)

The proposed project will significantly impact the physical properties of the backwater area and the immediate surroundings. The EIS will draw upon the previous studies in this area and, to the extent that agency and stakeholders' concerns are not answered by the previous studies, expanded or new studies will be conducted to assess the following areas of potential impact:

3.3.1 Fish and Wildlife Resources (Item 11)

- Unionid Mussels
- Macroinvertebrates
- Waterbirds
- Fish
- Any other species or habitat type that may be affected by the project that is listed on the Minnesota Natural Heritage Database as threatened or endangered.

3.3.2 Physical Impacts on Water Resources (Item 12)

- Localized Streambed Alterations
- Floodplain Impacts
- Wetland Impacts
- Surface Water Disturbances

- Sedimentation resulting from disturbance and resuspension of river bottom sediments.
- Sedimentation and turbidity issues during construction of the barrier dikes and the potential regulatory issues related to the use of mined materials.
- Shoreline erosion due to barge generated wave action – review of existing literature.

3.3.3 Water Quality – Wastewaters (Item 18)

- Physical and chemical properties of the sediments in the area, which have the potential to be suspended in the water column and transported down stream.
- Estimated turbidity and nutrient loading caused by the project.
- Current water quality impairments, the potential for future impairments due to the project, and the impacts of the proposed project on Spring Lake and Lake Pepin with regard to the TMDL being developed.
- Evaluate the deep dredged basins as to the potential for thermal stratification, anoxia and potential fish kills, and the discuss mitigative strategies

The EIS will suggest monitoring and mitigation where necessary to better define potential impacts and avoid or minimize known impacts to water resources.

3.3.4 Cumulative Effects (Item 29)

The creation of deep water could have a cumulative impact on ground water movement or chemistry and the sedimentation and turbidity resulting from the mining processes could have a cumulative impact relative to the water quality impairments and on Spring Lake and Lake Pepin. See 7.0 for further discussion.

4.0 IDENTIFICATION OF PHASED OR CONNECTED ACTIONS

The proposed project is connected to the existing aggregate mining on the island. The processes and equipment used for the proposed expansion will be the same as are currently being used. The proposed expansion will extend the life of the processing plant for 15 to 20-years.

5.0 EIS SCHEDULE (TENTATIVE)

Final Scoping Decision Document	June 2008
EIS Preparation Notice Published	June 2008
Draft EIS Issued for Public Review	Summer 2009
Final EIS Issued	Fall 2009
EIS Adequacy Determined	December 2009

6.0 GOVERNMENTAL PERMITS OR APPROVALS

The EIS will identify all permits and approvals required for this project. While some permit application reviews may occur concurrently with EIS preparation, the EIS will not necessarily contain all information required for a decision on those permits.

Unit of Government	Type of Application	Status
City of Cottage Grove	Wetland Conservation Act – Mitigation Plan	To be obtained
City of Cottage Grove	Conditional Use Permit	To be obtained
Army Corps of Engineers	Section 10 Permit	To be obtained
Army Corps of Engineers	Section 404 Permit	To be obtained
MN Pollution Control Agency	NPDES Industrial Discharge Permit	Existing permit to be modified
MN Pollution Control Agency	NPDES Storm Water Permit	To be obtained
MN Pollution Control Agency	Air Permit	To be obtained
MN Pollution Control Agency	Section 401 Water Quality Certification	To be obtained
MN Dept. of Natural Resources	Takings Permit for State Endangered and Threatened Species	To be obtained
MN Dept. of Natural Resources	Public Water Works Permit	To be obtained
MN Dept. of Natural Resources	Dam Safety Permit	To be obtained
MN Dept. of Natural Resources	Work in the Bed of Public Waters Permit	To be obtained
MN Dept. of Natural Resources	Water Appropriation Permit	Existing permit to be modified

7.0 Cumulative Effects

The EIS will evaluate cumulative effects using guidance from the Council on Environmental Quality handbook for considering cumulative effects under the National Environmental Policy Act (CEQ, 1997). The affected resources that are related to the cumulative effect issues will be used to determine the appropriate geographic and temporal scope to the analysis. Based on the information contained in the DSEAW and DSDD and provided in written comments received and in responses to those comments, the City of Cottage Grove has considered the following are potential environmental effects associated with the proposed project that will be addressed in the EIS.

- a. Impact of the proposed project on ground water movement or chemistry;
- b. Cumulative effects to the current water quality impairments in Pool 2;
- c. Cumulative effects to the water quality of Spring Lake; and
- d. Cumulative effects relative to the TMDL for Lake Pepin.

8.0 Updated Studies or Additional Studies

A number of reports and studies will be developed to support the assessment of environmental impacts from the proposed project. The project proposer will provide the following reports to the City and U.S Army Corps of Engineers for review and incorporation into the EIS. The scope of

these will be developed and reviewed by the project Technical Advisory Committee prior being undertaken.

Updated Studies

- a. Unionid Mussel Survey – UMR Mile 820.0 – 821.5
- b. Macroinvertebrate Analysis Report
- c. Lower Pool 2 Water Quality Study
- d. Sediment Analysis Study
- e. Waterbird Use Study – UMR Mile 815 – 837

Additional Studies

- a. Phase I Archeology Study of Project Site
- b. Literature Review of Barge Generated Wave Erosion of Shorelines
- c. Fishery Population Assessment
- d. Water Quality Modeling Study