



Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

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February 4, 2013

Mr. Jason Gilman
Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987

Re: Dabelstein Quarry and Yoder Quarry Environmental Assessment Worksheets

Dear Mr. Gilman:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheets (EAWs) for the Dabelstein Quarry and Yoder Quarry projects in Winona County. The Minnesota Pollution Control Agency (MPCA) staff believes that the information provided in the EAWs is insufficient to fully identify and assess the environmental effects of the projects. The MPCA believes the necessary information can be obtained and evaluated most effectively by preparing an Environmental Impact Statement (EIS). Consequently, we respectfully recommend that Winona County make a positive declaration on the need for an EIS for both projects and include within the scope of each EIS appropriate studies to obtain the lacking information as provided in Minn. R. 4410.1700, subp. 2a, Item A.

The following comments are intended to supplement previous comments made in our letters dated November 14, 2012 (copies of which are attached for incorporation into the record of decision and for your reference).

Phased and Connected Actions

The MPCA has previously noted concerns about the phased and connected aspect of the Dabelstein and Yoder Quarry mining operations and other mining operations proposed in same geographic and environmentally relevant area described in the EAWs under Item 29. This includes the Alice Dabelstein Quarry, the Boyum Quarry, and the Kessler Quarry in Fillmore County. These mining operations are located in close proximity to each other and will be operated by the same company, Minnesota Sands LLC.

Environmental Quality Board (EQB) rules direct Responsible Governmental Units (RGUs) to consider phased actions or connected actions "in total when determining the need for an EIS and in preparing the EIS" (Minn. R. 4410.2000, subp. 4). According to the rules of the EQB rules, two or more projects to be undertaken by the same proposer that will have environmental effects on the same geographic area and are substantially certain to be undertaken sequentially over a limited period of time are considered phased actions. See Minn. R. 4410.0200, subp. 60.

In light of the factual connections between the Dabelstein and Yoder mines and the other mining operations, the MPCA is concerned that the projects meet the definition of phased actions and should be considered together in one environmental review process. The MPCA also notes that it may be appropriate for Winona County to prepare a Related Actions EIS, that is, a single EIS for independent projects with potential cumulative environmental impacts on the same geographic area. (Minn. R. 4410.2000, subp. 5).

In addition, connected actions, defined in Minn. R. 4410.0200, subp. 9c, are projects that are directly induced by another project, and/or projects that are a prerequisite for other projects and not justified by themselves. Sand which is mined at the Dabelstein and Yoder sites and other neighboring sites will of necessity undergo processing which may include screening, washing, drying, sifting, and associated transportation and transfer. The nature and location of these activities and their potential impacts as described in the EAWs is not addressed to any significant

degree. The MPCA understands that it may be necessary to use sand drying equipment to process the sand. Because there are currently no permitted heated sand drying facilities in Winona, the addition of a sand drying component to an existing facility in order to process the sand would be a new aspect that will have been induced by the proposed mining operations. Therefore, an EIS should be prepared to disclose all known and/or proposed processing aspects of the projects, and to assess their impacts and address mitigation.

Cumulative Potential Effects

Additional information and detail are also necessary to evaluate the nature and extent of cumulative potential effects. As mentioned in the MPCA's November 14, 2012, comments, a cumulative potential effects analysis is applicable and should be obtained during the environmental review (Minn. R. 4410.0200, subp. 11a). This requires an analysis of specific projects that may interact with the proposed projects in such a way as to cause cumulative impacts. The proposed projects themselves, addressed in separate EAWs, should be evaluated for their combined cumulative potential effects, along with other existing or planned future projects.

As noted earlier, there are several other mining projects within the same environmentally relevant area in Winona and Fillmore Counties, as well as activities such as processing and transportation that would necessarily be conducted at and between all sites. While the EAWs provide an inventory of mining projects in the area surrounding the proposed projects, neither EAW provides a complete analysis of the cumulative impacts that may occur as a result of their interaction with each other, the other projects and the natural resources and communities that may be affected. Therefore, it is not possible to adequately assess the cumulative potential environmental effects of these projects. Consequently, the EAWs are ineffective as an assessment tool with regard to cumulative potential effects. The preparation of an EIS would offer the opportunity to obtain lacking information on cumulative effects.

Insufficient Information

The information presented in the EAWs is lacking specificity and detail in several areas as described below. This severely limits the ability to identify the types of impacts, assess associated impacts and evaluate mitigation measures at either the Dabelstein or Yoder sites, the other mining sites and the sand processing sites. There are several examples that can be cited in this regard, such as:

- Insufficient information is provided regarding the types of activities to be conducted at the quarry sites, the eventual destination of sand taken from the quarries, the types of processing or other activities that would have to be conducted at other existing or future sites in Minnesota, including the potential for discharges to surface waters.
- The EAWs state Minnesota Sands' commitment to process 2 million tons of sand per year from Winona County sand reserves but do not indicate if the Dabelstein and Yoder Quarries have the mining capacity to meet this commitment or if other mines are needed.
- The EAWs do not identify the need for an air emissions permit in Item 8 (Permits and Approvals Required), nor do they explain why an air emissions permit is not required given in EAW Item 23 (Stationary Source Air Emissions). However, the EAWs do mention crushing operations. If crushing operations will occur at a rate of 150 or more tons per hour, which appears likely, federal regulations will trigger the need for an air emissions permit. An Air Permit Applicability Determination or air emissions permit application should be submitted for review by the MPCA in order to obtain this information prior to completing environmental review requirements.

- The existence of impacts related to the generation of dust and the intent to mitigate these impacts are noted at multiple locations in the EAWs; however, these impacts are not analyzed in any meaningful way and the mitigation measures to be employed are essentially statements of good intentions rather than specific requirements “that can be reasonably expected to effectively mitigate the identified environmental impacts.” Minn. R. 4410.1700, subp. 7. C.
- Neither the Operation and Reclamation Plans nor the Stormwater Pollution Prevention Plans required by the Nonmetallic Mineral Mining & Associated Activities General Permit referenced in the EAWs provide any meaningful description of dust control measures to be employed and required. This is of particular concern in light of human health hazards that may be related to elevated exposures to respirable crystalline silica sand particulates associated with frac sand activities. Fugitive Dust Control Plans should have been prepared that provided detailed information on operation and maintenance practices that will be implemented to control these emissions.
- Both EAWs describe the potential transporting of sand to washing and processing facilities near Winona; however, no information is provided on these facilities, the size and scope of activities likely to occur at these facilities, the associated impacts or the mitigation measures that will be needed. Furthermore, to the extent that sand is washed at such facilities, it may be necessary to use sand drying equipment subject to permitting by the MPCA. However, there are no permitted heated sand drying facilities in or near Winona. The preparation of an EIS would be an appropriate means to obtain and evaluate this lacking information.
- The brief discussion of potential health impacts related to respirable crystalline silica is potentially misleading. While environmental exposures to crystalline silica may not be a significant concern to the general public, exposures of potential concern may be more likely if populations are close to large sources of uncontrolled emissions. (Ref. Wisconsin Department of Natural Resources Report to the Natural Resources Board: Silica Study, August 2011) Several silica sand sites in Wisconsin have started monitoring for silica sand particles in the size range that are potentially associated with health impacts. This data may be available for analysis during the time required to develop an EIS. The preparation of an EIS is an appropriate means to evaluate this issue in the context of both projects.

Project Magnitude

The EAWs (Item 7) indicate that the proposed Dabelstein mine is 36.5 acres in size and the Yoder mine is 84.3 acres in size. Both EAWs indicate that total project properties encompass much larger areas of land than the area proposed to be mined; 213.1 acres and 287.8 acres respectively. The EAWs and the Operation and Reclamation Plans mention potential future expansions of the mine areas. As per the EQB Rules regarding the mandatory threshold for an EAW (Minn. R. 4410.4300, subp. 12b) or an EIS (Minn. R. 4410.4400, subp. 9b), the total area to be mined *during the mine's existence* must be used to determine the appropriate environmental review document. If either mining area could meet or exceed 160 acres during its existence, an EIS is required. Because future mining expansions are under consideration and there is adequate land capacity for the mines to expand, each project has the potential to meet or exceed 160 acres during the mines existence. Therefore, the EAWs should either document that the mining areas will not exceed these thresholds during their existence or an EIS should be prepared.

J. Gilman
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Furthermore, the proposed mining operations at the Alice Dabelstein Quarry, the Boyum Quarry, and the Kessler Quarry in Fillmore County total 130 acres and are within 5 miles of the Dabelstein and Yoder mines in Winona County. As discussed previously, based on the information presented in the EAWs and review of MPCA staff, these mining operations appear to be phased actions and as such, the cumulative mined area exceeds the mandatory EIS threshold.

Conclusion

We appreciate the opportunity to review these projects. The mission of the MPCA is to work with Minnesotans to protect, conserve and improve the environment and quality of life. We find that additional analysis and study of all the proposed phased and connected projects, including cumulative impacts analysis, and more thorough discussion of the proposed mining operations and related transportation and processing is needed to fully understand the potential environmental impacts and develop responsible plans for the proposed mining activities. The Agency stands ready to support and assist Winona County by providing additional technical assistance for further and more comprehensive review of the proposed phased and connected projects. This additional review and analysis will increase the clarity of the potential short- and long-term impacts of the proposed projects.

Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the projects for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. Please provide your specific responses to our comments and notice of decision on the need for an EIS. If you have any questions concerning our review of these EAWs please contact Craig Affeldt at 651-757-2181.

Sincerely,



John Linc Stine
Commissioner

Attachments

cc: Fillmore County Board
Craig Affeldt, MPCA, St. Paul
Bob Finley, MPCA, Mankato
Geoffrey G. Griffin – G Cubed Inc. [14070 Hwy 52 SE, Chatfield, MN 55923]
Bob Patton, EQB Executive Director



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November 14, 2012

Mr. Jason Gilman
Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987

Re: Dabelstein Quarry Environmental Assessment Worksheet

Dear Mr. Gilman:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Dabelstein Quarry project (Project) in Winona County. The Project is described as the construction and operation of a 36.5-acre aggregate quarry. The Minnesota Pollution Control Agency (MPCA) staff has the following comments for your consideration.

I would first note that the language in the introductory paragraphs on this EAW references the availability of the EAW on the MPCA website and that the EAW was prepared by the MPCA. This information is incorrect and likely confusing to the public. I am not aware of comments being addressed to the MPCA on the Project; however, Winona County, as the responsible government unit (RGU), should consider re-publishing the EAW with the correct information to ensure that the public has had the opportunity to comment on the EAW free of any complicating factors.

General Comment

Winona County currently has two mining operations with EAWs currently on public notice, Dabelstein Quarry and Yoder Quarry. These mining operations are located in close proximity to each other and it is the understanding of the MPCA that the mining will be conducted by the same company. It is not clear if the projects will be conducted simultaneously or sequentially. The MPCA believes it may have been more appropriate to have prepared a single EAW or an Environmental Impact Statement (EIS), depending on the total acres to be mined during the quarries' existence, with the company as the Project proposer. The proposer is defined as the person or governmental unit that proposes to undertake or direct others to undertake a project (Minn. R. 4410.0200, subp. 68). It is also possible that these mining operations could be considered to be phased or connected actions. Phased actions are defined as two or more projects by the same proposer that an RGU determines will have environmental effects on the same geographic area and are substantially certain to be undertaken sequentially over a limited period of time (Minn. R. 4410.0200, subp. 60). Connected actions, defined in Minn. R. 4410.0200, subp. 9c, are projects that are directly induced by another project, projects that are a prerequisite for other projects and not justified by themselves (Minn. R. 4410.0200, subp. 9c). Please provide information as to why these projects were not considered as a phased or connected action.

Project Magnitude Data (Item 7)

This section indicates that the Dabelstein property encompasses 213.1 acres of land and the area to be mined is 36.5 acres. However, other sections of the EAW and the Operation and Reclamation Plan discuss the potential for future expansions of the mine area. As per the rules regarding the mandatory threshold for an EAW (Minn. R. 4410.4300, subp. 12b) or an EIS (Minn. R. 4410.4400, subp. 9b), the total

area to be mined *during the mine's existence* must be used to determine the appropriate environmental review document. If it is known that the mining area will ultimately meet or exceed the 40 acre threshold for an EAW during its existence, then a mandatory EAW is required. If the mining area could meet or exceed 160 acres during its existence, an EIS would be the appropriate environmental review document. The EAW should document why the mining area will not exceed 36.5 acres during its existence.

Cover Types (Item 10)

This section indicates that there are no impervious surfaces at the proposed facility. However, section 16, Erosion and Sedimentation, indicates 2.8 acres will be graded for the access road. The construction of gravel or paved roads, or other hard surfaces would meet the definition of an impervious surface. Any surfaces created that "either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development," should be calculated as impervious surface. That impervious surface area should then be used to determine sizing criteria and requirements for the temporary and permanent stormwater treatment.

Physical Impacts on Water Resources (Item 12)

If the facility is eligible for and obtains the Nonmetallic Mineral Mining & Associated Activities NPDES/SDS General Permit (MNG490000), the facility needs to be sure to limit and control the use of diesel fuels, lubricants and hydraulic fluids that may cause exceedances of groundwater standards specified in Minn. R. ch. 7060.

Water Quality – Surface Water Runoff (Item 17)

Please note that under the MNG490000 permit, sediment will need to be removed from the sedimentation/infiltration basins once the depth of the sediment collected in the basin reaches 1/2 the storage volume.

Odors, Noise and Dust (Item 24)

This section mentions the use of oil for dust suppression on roads. The EAW does not specify the type of oil to be used, clean product oil or used oil (e.g. waste hydraulic, motor, or coolant oil) for dust suppression. The difference is significant as the former is allowed but generally discouraged, while the latter is explicitly prohibited by Minn. Stat. § 115A.916, (a), (2); and Minn. R. 7045.0845, subp. 1.

MPCA guidance on allowable materials for dust suppression is provided in the factsheet *Alternatives to Used Oil for Dust Suppression* located on the MPCA website at:

<http://www.pca.state.mn.us/index.php/view-document.html?gid=9072>

and *Fugitive Dust-Control Surface Treatments at Industrial Facilities: Water Quality Considerations* located on the MPCA website at:

<http://www.pca.state.mn.us/index.php/view-document.html?gid=11595>

Cumulative Potential Effects (Item 29)

A cumulative potential effects analysis is applicable and must be conducted for the EAW to be complete. This requires an analysis of specific projects that may interact with the proposed Project in such a way as to cause cumulative impacts. The responsible governmental unit must inquire whether a proposed project, which may or may not individually have the potential to cause significant environmental effects, could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resource(s). The cumulative potential effects assessment should:

- Consider *existing projects*, as well as anticipated *future projects* that have been planned or for which a 'basis of expectation has been laid' (future projects for which permit applications or EAWs have been submitted either at the state or local level, or projects for which plats have been approved on the local level may be considered to demonstrate the required basis of expectation).
- Consider a limited geographic area surrounding the project, in which facilities may reasonably be expected to affect the same natural resource – for instance, a nearby lake – as the proposed Project.

In completing this item, your analysis should identify: a) the limited geographical area considered; b) any other projects as outlined above, (and explain how they were identified); c) the cumulative impacts that may occur as a result of interaction of the other project(s) with the proposed Project; and d) the natural resource(s) affected and how it may be affected. The nearby planned mining and sand processing activities would have the potential to contribute to cumulative potential effects; therefore, a focus on these related activities seems appropriate.

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW please contact me at 651-757-2181.

Sincerely,



Craig Affeldt, Supervisor
Environmental Review Unit
Resource Management and Assistance Division

KK:mbo

cc: Karen Kromar, MPCA, St. Paul
Bob Finley, MPCA, Mankato
Theresa Haugen, MPCA, Brainerd



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November 14, 2012

Mr. Jason Gilman
Winona County Planning and Environmental Services Department
177 Main Street
Winona, MN 55987

Re: Yoder Quarry Environmental Assessment Worksheet

Dear Mr. Gilman:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Yoder Quarry project (Project) located in Winona County, Minnesota. The Project consists of the construction and operation of a 38.2-acre aggregate quarry. The Minnesota Pollution Control Agency (MPCA) has the following comments for your consideration.

I would first note that the language in the introductory paragraphs on this EAW references the availability of the EAW on the MPCA website and that the EAW was prepared by the MPCA. This information is incorrect and likely confusing to the public. I am not aware of comments being addressed to the MPCA on the Project; however, Winona County, as the responsible government unit (RGU), should consider re-publishing the EAW with the correct information to ensure that the public has had the opportunity to comment on the EAW free of any complicating factors.

General Comment

Winona County currently has two mining operations with EAWs currently on public notice, Dabelstein Quarry and Yoder Quarry. These mining operations are located in close proximity to each other and it is the understanding of the MPCA that the mining will be conducted by the same company. It is not clear if the projects will be conducted simultaneously or sequentially. The MPCA believes it may have been more appropriate to have prepared a single EAW or an Environmental Impact Statement (EIS), depending on the total acres to be mined during the quarries' existence, with the company as the Project proposer. The proposer is defined as the person or governmental unit that proposes to undertake or direct others to undertake a project (Minn. R. 4410.0200, subp. 68). It is also possible that these mining operations could be considered to be phased or connected actions. Phased actions are defined as two or more projects by the same proposer that an RGU determines will have environmental effects on the same geographic area and are substantially certain to be undertaken sequentially over a limited period of time (Minn. R. 4410.0200, subp. 60). Connected actions, defined in Minn. R. 4410.0200, subp. 9c, are projects that are directly induced by another project, projects that are a prerequisite for other projects and not justified by themselves (Minn. R. 4410.0200, subp. 9c). Please provide information as to why these projects were not considered as a phased or connected action.

Project Magnitude Data (Item 7)

This section indicates that the Yoder property encompasses 287.8 acres of land and the area to be mined is 38.2 acres. However, other sections of the EAW and the Operation and Reclamation Plan discuss the potential for future expansions of the mine area. As per the rules regarding the mandatory

threshold for an EAW (Minn. R. 4410.4300, subp. 12b) or an EIS (Minn. R. 4410.4400, subp. 9b), the total area to be mined *during the mines existence* must be used to determine the appropriate environmental review document. If it is known that the mining area will ultimately meet or exceed the 40 acre threshold for an EAW during its existence, then a mandatory EAW is required. If the mining area could meet or exceed 160 acres during its existence, an EIS would be the appropriate environmental review document. The EAW should document why the mining area will not exceed 36.5 acres during its existence.

Cover Types (Item 10)

This section indicates that there are no impervious surfaces at the proposed facility. However, section 16, Erosion and Sedimentation, indicates 2.8 acres will be graded for the access road. The construction of gravel or paved roads, or other hard surfaces would meet the definition of an impervious surface. Any surfaces created that "either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development," should be calculated as impervious surface. That impervious surface area should then be used to determine sizing criteria and requirements for the temporary and permanent stormwater treatment.

Physical Impacts on Water Resources (Item 12)

If the facility is eligible for and obtains the Nonmetallic Mineral Mining & Associated Activities NPDES/SDS General Permit (MNG490000), the facility needs to be sure to limit and control the use of diesel fuels, lubricants and hydraulic fluids that may cause exceedances of groundwater standards specified in Minn. R. ch. 7060.

Water Quality – Surface Water Runoff (Item 17)

Please note that under the MNG490000 permit, sediment will need to be removed from the sedimentation/infiltration basins once the depth of the sediment collected in the basin reaches 1/2 the storage volume.

Odors, Noise and Dust (Item 24)

This section mentions the use of oil for dust suppression on roads. The EAW does not specify the type of oil to be used, clean product oil or used oil (e.g. waste hydraulic, motor, or coolant oil) for dust suppression. The difference is significant as the former is allowed but generally discouraged, while the latter is explicitly prohibited by Minn. Stat. § 115A.916, (a), (2); and Minn. R. 7045.0845, subp. 1.

MPCA guidance on allowable materials for dust suppression is provided in the factsheet *Alternatives to Used Oil for Dust Suppression* located on the MPCA website at:

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and *Fugitive Dust-Control Surface Treatments at Industrial Facilities: Water Quality Considerations* located on the MPCA website at:

<http://www.pca.state.mn.us/index.php/view-document.html?gid=11595>

Cumulative Potential Effects (Item 29)

A cumulative potential effects analysis is applicable and must be conducted for the EAW to be complete. This requires an analysis of specific projects that may interact with the proposed Project in such a way as to cause cumulative impacts. The responsible governmental unit must inquire whether a proposed project, which may or may not individually have the potential to cause significant environmental effects,

could have a significant effect when considered along with other projects that (1) are already in existence or planned for the future; (2) are located in the surrounding area; and (3) might reasonably be expected to affect the same natural resource(s). The cumulative potential effects assessment should:

- Consider *existing projects*, as well as anticipated *future projects* that have been planned or for which a 'basis of expectation has been laid' (future projects for which permit applications or EAWs have been submitted either at the state or local level, or projects for which plats have been approved on the local level may be considered to demonstrate the required basis of expectation).
- Consider a limited geographic area surrounding the project, in which facilities may reasonably be expected to affect the same natural resource – for instance, a nearby lake – as the proposed project.

In completing this item, your analysis must identify: a) the limited geographical area considered; b) any other projects as outlined above, (and explain how they were identified); c) the cumulative impacts that may occur as a result of interaction of the other project(s) with the proposed Project; and d) the natural resource(s) affected and how it may be affected. The nearby planned mining and sand processing activities would have the potential to contribute to cumulative potential effects; therefore, a focus on these related activities seems appropriate.

We appreciate the opportunity to review this Project. Please provide your specific responses to our comments and notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW please contact me at 651-757-2508.

Sincerely,



Craig Affeldt, Supervisor
Environmental Review Unit
Resource Management and Assistance Division

CA:mbo

cc: Craig Affeldt, MPCA, St. Paul
Bob Finley, MPCA, Mankato
Theresa Haugen, MPCA, Brainerd