Minnesota Pollution Control Agency

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

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

December 23, 2013

Ms. Kate Sedlacek
Scott County Environmental Health Department
Government Center A104
200 Fourth Avenue West
Shakopee, MN 55379-1220

RE: Jordan Aggregates Proposed Mining Operation Final Environmental Impact Statement

Dear Ms. Sedlacek:

Thank you for the opportunity to review and comment on the Final Environmental Impact Statement (Final EIS) for the Jordan Aggregates Proposed Mining Operation project (Project) located in Jordan, Minnesota.

The Minnesota Pollution Control Agency (MPCA) previously provided comment letters on the EIS Scope and the Draft EIS for this project. These letters highlighted our expectation that the review of permit applications and the development of proposed permits, which would presumably contain necessary mitigation, should occur concurrently with the preparation of the Draft EIS as specified in the environmental review scoping process. Because the MPCA has not received any permit applications for the proposed Project, we were unable to develop and gather permit information concurrently with the preparation of the EIS as per the intent of environmental review. Consequently, this has hampered our ability to determine if there will be appropriate mitigation, provides no assurance of follow-up, and may constitute a significant inadequacy of the Final EIS.

In addition, the Final EIS acknowledges the potential for degradation of the surficial sand-and-gravel aquifer as a result of the proposed Project but does not propose any form of mitigation. For this reason, the MPCA believes that monitoring of the water quality of the aquifer is necessary to determine if degradation is taking place during and after mining. Therefore, the MPCA recommends the Project proposer be required by the County to apply for and receive an individual National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) permit for post construction activities to ensure appropriate ground water monitoring and mitigation plans are in place to protect the aquifer from degradation.

We appreciate the opportunity to review this project. 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 Final EIS please contact me at 651-757-2508.

Sincerely,

Karen Kromar

Karen Kromar
Planner Principal
Environmental Review Unit
Resource Management and Assistance Division

KK:je

cc: Craig Affeldt, MPCA, St. Paul
John Hensel, MPCA, St. Paul
Theresa Haugen, MPCA, Brainerd

MINNESOTA
MDH
DEPARTMENT OF HEALTH

Protecting, maintaining and improving the health of all Minnesotans

December 24, 2013

Kate Sedlacek
Scott County Environmental Health Department
200 Fourth Avenue West
Shakopee, MN 55379

Dear Ms. Sedlacek,

Thank you for providing the Minnesota Department of Health (MDH) with the opportunity to comment on the Final Environmental Impact Statement (EIS) for the Jordan Aggregates project.

Wells and Groundwater Quality

Section 3.3.2 (page 46) - Table 3 includes four wells that have been sealed (211711, 235532, 271816, and 271924), but does not include three existing wells on or near the site (249319, 110483, and 753654). 249319 and 110483 are active, transient, non-community public water supply wells; 110483 is completed in the Quaternary water table aquifer (QWTA), the aquifer in which 249319 is completed is unknown. The "Comments Received and Responses Concerning the DEIS" document indicated the well information would be updated in the FEIS. This does not appear to have occurred. However, the non-community wells are unlikely to experience substantial drawdown related to mine activities.

Section 3.6.2 (page 57) – The last paragraph – the text identifies well 777297 as being located at 18020 Valley View Dr. This is incorrect. Well 777297 is located at 18031 Valley View Drive – it was drilled to replace well 271816 which was sealed Nov. 12, 2010. In the first paragraph on page 63, the text describes the "private well at 18020 Valley View Drive"....as being reportedly "...constructed at a depth of 205 feet with a casing down to 150 feet". The source of this information is not indicated in the FEIS, but according to the Response to Comments document this appears to have been reported by Bohn Well Drilling, who recently serviced the well. Based on the reported construction depths, compared to nearby wells, this suggests the 18020 Valley View Dr. well is completed in the upper Franconia and should be less prone to flood impacts than a Quaternary well.

Section 3.6.3 (page 65) -- The FEIS text indicates the mitigation plan for flooding impacts to nearby wells is to "...install a deep FIG aquifer well to replace the Quaternary well presently serving the SCALE facility", suggesting that only one well at this property requires a mitigation plan. MDH records show there are <u>two</u> wells actively in use at this facility (249319 and 110483), which are alternated roughly monthly. Will both of these wells be replaced? If not, which well is being replaced and what is the mitigation plan for the second well, should it be contaminated by flood water?

Section 3.6.3 (page 67) – The bottom of page 67 states that, "Periodic monitoring of on-site monitoring wells in the FIG to detect possible impacts from the mine in the FIG and nearby off-site private wells should be a part of a monitoring plan submitted as part of the IUP." Establishing a monitoring plan is an essential part of the mining process and MDH would like to stress the importance of continued monitoring during the mining process and once mining at the site has ceased. Establishing a well monitoring plan is important, especially since the EIS proposes to replace impacted wells from flood waters but doesn't give details on how it will determine if wells have been impacted.

Section 3.10.2 (page 111) –The FEIS text states: "The Project Proposer has not proposed an acceptable monitoring and mitigation plan for the affected quaternary aquifer". MDH cannot fully evaluate this, but if the "Water Monitoring and Response Action Plan" posted on the county website is the current monitoring plan, we concur with this assessment. That document indicates that three new deep monitoring wells are proposed for the site, but their locations are not shown on the site maps. Also, the number of new wells (two deep surficial aquifer; one CFIG) is insufficient. The number and location of monitoring wells needs to be sufficient to provide early warning of water quality changes before drinking water wells are affected, to allow time for necessary response to prevent exposures to site-related or flood-related contaminants.

Section 3.10.4 (page 118) – To a very large degree, the groundwater quality mitigation strategies do not actually mitigate potential impacts to the groundwater (and surface waters where the groundwater discharges). Instead they eliminate, or reduce the likelihood of, impacted drinking water receptors. The exception is the change in the final excavation depth of the mine, which will retain approximately 10-30 feet of native deposits above the CFIG aquifer. This should help to mitigate potential impacts to this aquifer, but will not alter the possible impacts to the Quaternary aquifer.

Well Construction
New wells that are constructed in Minnesota must be constructed according to the requirements of Minnesota Statutes, Chapter 103I, and Minnesota Rules, Chapter 4725. Abandoned wells will need to be properly sealed. Additional information is available at Well Construction and Well Sealing. MDH staff are also available to provide information and resources.

Groundwater-Flow and Solute-Transport Modeling Report
Barr modeled the mine pit as a zone of very high hydraulic conductivity (10,000 m/day, compared to the average aquifer hydraulic conductivity of 11 to 21 m/day), as described by Anderson et al. (2002). This method has been used by several authors to model the water level in a pit or a lake. Although the method accurately simulates water level, most authors stress the inaccuracy in computing flow in and out of a pit or lake.

Barr then used the flow field computed using this method to predict contaminant transport into the water table aquifer, and to our knowledge this application of the above method to compute flow field has not been demonstrated before. We are aware of no study to demonstrate the results comparable with those obtained using a more conventional method of simulating lakes in MODFLOW and MT3D using the LAK packages. Can Barr provide an independent study that

supports this approach, including documentation of the level of accuracy in the conservation of mass that one might expect from this approach?

Page 17 –

> "During mining, approximately 2,700 tons of sand and gravel will be excavated daily. The removal of the material from the mine has an effect that is similar to pumping water because sand and gravel is taken out and the resulting "void" space is filled by groundwater flowing into the pit. Assuming an approximate bulk density of sand 1.67 tons/m3, and a standard void ratio for sand and gravel of 0.3, approximately 1,134 m3 of
>
> solid material will be removed from the mine pit each day. This value of 1,134 m3/day can be thought of as the "pumping rate" due to sand and gravel extraction."

Mining the pit is not similar to pumping water, contrary to what Barr suggests. During the excavation process, no water is removed from the aquifer (except for the residual water that remains on excavated sand and gravel). The boundary of the aquifer changes, not the amount of the water in the system, and therefore adding an additional sink does not seem justified. During transient simulation, this sink is already represented by the storage coefficient of 1 that Barr uses. Adding another sink through the use of a fictitious well seems to account twice for the same factor.

Health Impact Assessment

A Health Impact Assessment (HIA) is a research and community engagement process that can be used to help ensure that people's health and concerns are being considered when decisions on infrastructure and land use projects are being made. The National Research Council defines HIA as "a structured process that uses scientific data, professional expertise, and stakeholder input to identify and evaluate public-health consequences of proposals and suggests actions that could be taken to minimize adverse health impacts and optimize beneficial ones." HIAs have been used to provide important health information to decision makers on a wide range of projects outside the typical health arena, including comprehensive plans, brownfield redevelopment, transportation projects, energy policies, and housing projects. Over 100 HIAs have been performed in the US to help improve public health. Ten HIAs have been completed in Minnesota, mostly on comprehensive plans and transportation projects.

In Colorado, an HIA was undertaken to access health impacts associated with a hydraulic fracking project proposed in that state. However, to date, no HIA has been used to evaluate frac sand mining in the US, but HIAs have been used to inform decision makers about additional health effects in projects that have some similarities, including oil and gas leasing, coal mine proposals, and copper, zinc and gold mining. These HIAs may review health issues that are typically included in an EIS, such as water and air quality, but they also review additional health effects that are related to the specific site and community. Some health effects considered in these HIAs include reviewing the health effects of newly built infrastructure and traffic to support mining, the influx of migrant workers, and the disturbance of food sources relied upon by subsistence cultures.

An HIA on silica sand mining could provide additional health information for policy makers in determining how to balance health and citizens' concerns with the economic benefits of silica sand mining. Ideally, the HIA would include an air monitoring study, but this requires significant time and resources. An HIA could be scaled according to available resources and still answer some of the health questions posed by the community. An HIA could provide recommendations to policy makers to support possible positive health outcomes and to mitigate or prevent possible negative health outcomes to improve the public's health and to inform zoning, permitting, monitoring, and reclamation policies.

Health starts where we live, learn, work, and play. To create and maintain healthy Minnesota communities, we have to think in terms of health in all policies. Thank you again for the opportunity to provide comments on this EIS. Please feel free to contact me at (651) 201-4907 or at david.bell@state.mn.us if you have any questions regarding this letter.

Sincerely,

David Bell
Research Scientist
Environmental Health Division
Minnesota Department of Health
PO Box 64975
Saint Paul, MN 55164-0975

Minnesota Department of Natural Resources
Division of Ecological and Water Resources
1200 Warner Road
Saint Paul, MN 55106-6793

December 20, 2013 Transmitted Via E-mail

Kate Sedlacek
Scott County Environmental Health Department
200 Fourth Avenue West
Shakopee, Minnesota 55379
ksedlacek@co.scott.mn.us

Re: Jordan Aggregates LLC Project Final Environmental Impact Statement (FEIS)

Dear Ms. Sedlacek:

The Minnesota Department of Natural Resources (DNR) Central Region has reviewed the FEIS for the Jordan Aggregates LLC Project (the Project) located in Sand Creek Township. As previously stated following our review of the Draft EIS (February 2013), most of our earlier concerns have been appropriately addressed. However, the following comments are offered:

Section 3.10.2 addresses Impacts to Sand Creek. It should be acknowledged that if Sand Creek breached the berm into the Project area, upstream and downstream impacts to geomorphology are likely. Further, the project proposer should be held to restoration of impacted areas upstream and downstream of the Project site, in addition to any affected area directly adjacent to the Project.

The FEIS correctly identifies the need for a water appropriation permit for a new well. Water usage is estimated at 500,000 to 2 million gallons annually. A DNR Waters Appropriation permit application should be submitted to the DNR for review. The DNR is required to make permit decisions within 30 days following the completion of an EIS unless a later date is agreed upon by participating parties.

The Project borders the Minnesota Valley National Wildlife Refuge and is surrounded by Central Region Regionally Significant Ecological Areas (CRRSEAs) of moderate, high and outstanding rank. CRRSEAs are identified as significant terrestrial and wetland resources that support a variety of plant and animal species, and provide habitat connectivity to other ecologically intact areas.

Because of the proximity of these natural areas, wildlife and nongame animal species will be at increased risk of mortality from commercial vehicle traffic and construction activities. During erosion-control activities, the DNR encourages the use of wildlife-friendly erosion control mesh (non-plastic, non-welded). Traditional erosion control mesh is known to cause injury and may be fatal to wildlife, particularly reptiles and amphibians.

Thank you for the opportunity to review the FEIS for this Project. If you have any questions about these comments, please contact me.

Sincerely,

Brooke

Brooke Haworth
Environmental Assessment Ecologist, Central Region
MnDNR Division of Ecological and Water Resources
1200 Warner Road, St. Paul, MN 55106
Phone: 651-259-5755
Email: Brooke.haworth@state.mn.us

CC: DNR Regional Environmental Assessment Team, Randall Doneen, Melissa Doperalski, Liz Harper, Dan Lais, Scot Johnson, Lisa Joyal, Erica Hoaglund, Christopher E. Smith, Jennie Skancke, Diana Regenscheid, Daryl Ellison (DNR)

ERDB 20100053-0004

December 26th, 2013
To: Dale Setterholm
From: Bob Tipping
Re: Jordan Aggregates FEIS – comments on hydrogeologic setting

I have read through the FEIS sent by Al Frechette, along with supplementary reports by Barr Engineering and Carlson-McCain. This site is in a regional groundwater discharge area for the upper Tunnel City Group and Wonewoc aquifers. As such, vertical hydraulic gradients from the bedrock aquifers to the water table/surfical aquifer are an important part of site characterization.

With regard to the surficial sand and gravel aquifer, in addition to infiltration as described in the reports, this unit likely receives the bulk of its recharge from below in the form of regional bedrock aquifer discharge. Based on water levels measured at the Greenhouse and House wells, and the assumed water table well MW-3, upward vertical gradient from the Tunnel City Group (Franconia) based on casing bottom elevations is 0.01 to 0.02, rather than 0.004 referenced to Barr, 2013. (see Figures 2 and 3, Barr 2013, pdf pages 57 and 58). Without knowing the specifics of boundary conditions and calibration targets used in the groundwater model, it is not clear if this difference impacts model results, but should be considered in evaluating the hydrologic conditions of the site and surrounding wetlands during and after mining operations. Once in the terrace sands, Sand Creek is a losing stream everywhere its elevation is higher than the bedrock hydraulic head (approx. 719 feet above msl at the proposed mine site, to 710 feet in wetlands north to northeast of the site). Long term (non-seasonal) water table elevations within the Minnesota River Valley are a function of bedrock hydraulic head.

Barr, 2013, Groundwater-Flow and Solute-Transport Modeling: Jordan Aggregates EIS Prepared for Scott County May 2012 (revised September 2013), 78 p. (http://www.co.scott.mn.us/ParksLibraryEnv/Environment/EnvReview/JordanAgEIS/Documents/modeling_report_text-final%5B1%5D.pdf)

Carlson-McCain, 2013, Water Monitoring and Response Action Plan: Jordan Aggregates Proposed Sand and Gravel Mine, Sand Creek Township, Minnesota Prepared for: Jordan Aggregates, LLC, October 18, 2013 66 p. (http://www.co.scott.mn.us/ParksLibraryEnv/Environment/EnvReview/JordanAgEIS/Documents/Jordan%20Aggregates%20-%20Water%20Monitoring%20and%20Response%20Plan%2010-18-13.pdf)

Minnesota Department of Transportation
Metropolitan District
Waters Edge Building
1500 County Road B2 West
Roseville, MN 55113

December 19, 2013

Kate Sedlacek
Environmental Health Department
200 Fourth Avenue West
Shakopee, MN 55379-1220

SUBJECT: Jordan Aggregates Final Environmental Impacts Statement
Mn/DOT Review # FEIS13-001
Southwest Quadrant of US 169 and 173rd Street
Sand Creek Township, Scott County
Control Section 7009

Dear Ms. Sedlacek:

Thank you for the opportunity to review the Jordan Aggregates Final Environmental Impact Statement (FEIS). The Minnesota Department of Transportation (MnDOT) has reviewed the FEIS and has the following comments.

As stated on page 129, the solution for trucks exiting the site and traveling northbound on US 169 remains unresolved. Consistent with our response to the Jordan Aggregates Traffic Analysis as well as the EIS, MnDOT continues to have concerns with Option #2, which involves slow moving truck U-Turns on US 169. US 169 serves as a high speed principal arterial corridor for both interstate and intrastate travel. Additionally, this section of US 169 serves approximately 31,000 vehicles per day. The County and Township should work together with the developer to utilize frontage/backage roads that support current and future truck traffic.

The FEIS states incorrectly that MnDOT prefers Option #6. Section 3.8.2.6 states that "MnDOT has identified this as the option they prefer." This "MnDOT preferred" option is also incorrectly assumed in Table 7 and section 3.8.3.6. In MnDOT's June 20, 2013 letter we stated that "...MnDOT continues to strongly support Option #1." We also stated in our February 19, 2013 letter, "In order to determine the feasibility of a U-Turn on US 169, MnDOT developed potential design alternatives. We were unable to design a U-Turn alternative that was safer than Option 1 in the EIS." Option #1 provides a route that does not require U-Turning on US 169.

Option #6 does remove the U-Turn from the high speed and high volume traffic on US 169, but still uses TH 169 as a circulation route that can be accommodated more safely on Valley View Dr. as proposed in Option #1.

MnDOT would also like to remain involved in further discussion concerning access. MnDOT plans to begin work with the Cities, Townships, Scott County, and Metropolitan Council to develop a near term strategy for desired access locations on the US 169 corridor. The intent is to provide an access management plan that can be implemented when opportunities exist - e.g. during development/redevelopment of adjacent properties, during MnDOT's mill and overlay projects, as subdivisions are designed, etc. Although the timing may not coincide with the

decision concerning Jordan Aggregates development, the plan intends to take truck movement into consideration.

When a truck route solution is identified that affects a state highway, MnDOT will need to review the detailed plans to assure that they meet highway standards.

Plan Submittal Options:
As a reminder, there are four submittal options. Please submit either:

1. One (1) electronic pdf. version of the plans. MnDOT can accept the plans via e-mail at metrodevreviews.dot@state.mn.us provided that each separate e-mail is less than 20 megabytes.
2. Three (3) sets of full size plans. Although submitting seven sets of full size plans will expedite the review process. Plans can be sent to:

   MnDOT – Metro District Planning Section
   Development Reviews Coordinator
   1500 West County Road B-2
   Roseville, MN 55113

3. One (1) compact disc with plans in .pdf format.
4. Plans to MnDOT's external FTP Site. Please send pdf. files to: ftp://ftp2.dot.state.mn.us/pub/incoming/MetroWatersEdge/Planning Internet Explorer doesn't work using ftp so please use an FTP Client or your Windows Explorer (My Computer). Also, please send a note to metrodevreviews.dot@state.mn.us indicating that the plans have been submitted on the FTP site.

If you have any questions concerning this review please feel free to contact me at (651) 234-7794.

Sincerely,

Tod Sherman
Planning Supervisor

Copy sent via Outlook:
Buck Craig, Permits
Nancy Jacobson, Design
Diane Langenbach, Area Engineer
Sheila Kauppi, Area Manager
David Sheen, Traffic
Lee Williams, Right-of-Way
Hailu Shekur, Water Resources
Tim Donovan, Design
Peter Wasko, Noise and Air
Russ Owen, Metropolitan Council

Metropolitan Council

December 26, 2013

Ms. Kate Sedlacek
Scott County Environmental Health Department
200 Fourth Avenue West
Shakopee, MN 55379

RE: Jordan Aggregates LLC Proposed Mining Operation
Final Environmental Impact Statement (FEIS)
Sand Creek Township, Scott County Minnesota
Metropolitan Council District 4
Metropolitan Council Review File No. 20822-3

Dear Ms. Sedlacek:

The Metropolitan Council received the Final Environmental Impact Statement (FEIS) for the proposed aggregate mining project on November 25, 2013. The document adequately responds to the water supply-related issues raised in our earlier reviews of the proposed project. The following comments are offered concerning issues addressed in the FEIS.

3.2.4 Effect of Mine Pit Drawdown on Wetlands

Site groundwater modeling predicts that the mine pit and wash water well will result in a net reduction in groundwater inflows into area wetlands during proposed mining operations. Council staff recommends that water levels be monitored in the wetland complex north of the site within the Minnesota Valley National Wildlife Refuge for at least the first five years of 'pond-phase' mining to insure that actual drawdown does not exceed projected levels that might result in negative wetland function and value impacts, without appropriate mitigation.

Council staff is in agreement with the County's findings in the document, that the proposed mine pit excavation project would expose the quaternary aquifer in and around the site to increased frequencies and levels of water quality degradation.

This concludes the Council's review of the DEIS. The Council will take no formal action on the document. If you have any questions or need further information, please contact Jim Larsen PE, principal reviewer, at 651-602-1159.

Sincerely,

LisaBeth Barajas
Manager, Local Planning Assistance

cc: Gary Van Eyll, Metropolitan Council District 4
Angela Torres, Sector Representative
Judy Sventek, Manager – Water Resources Assessment
Ali Elhassan, Water Supply Manager
Raya Esmaeili, Reviews Coordinator

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MINNESOTA DEPARTMENT OF AGRICULTURE

Becky.balk@state.mn.us
651-201-6369

December 5, 2013

Kate Sedlacek
Environmental Health Department
200 Fourth Avenue West
Shakopee, MN 5537-01220

RE: Jordan Aggregates Final Environmental Impact Statement

Dear Ms. Sedlacek:

Thank you for the opportunity to comment on the Jordan Aggregates Final Environmental Impact Statement. The Minnesota Department of Agriculture does not have any comments.

Please feel free to contact me if you have any questions.

Thank you.

Sincerely,

Becky Balk

Becky Balk, Principal Planner
Agricultural Marketing and Development Division (AMDD)

CITY OF
JORDAN

December 16, 2013

Ms. Kate Sedlacek
Environmental Health Department
Scott County
200 4th Ave W
Shakopee, MN 55379

RE: City of Jordan Comment Letter
Jordan Aggregates FEIS

Dear Ms. Sedlacek:

The City of Jordan has reviewed the Final Environmental Impact Statement (FEIS) prepared by Scott County for the proposed development of a gravel pit by Jordan Aggregates. The City of Jordan, by act of the City Council, submits the following comments regarding the Jordan Aggregates FEIS.

1. The City of Jordan understands that the project proposes to generate aggregate products available for commercial sale and will be exported from the site by trucks at a rate of 10,000 round-trips per year and up to 110 round-trips per day during periods of peak demand. The City further understands these figures were provided by the developer. These figures should be incorporated into the future IUP as maximums allowed. As these figures were used as maximums in the EIS as well as former documents for consideration of environmental impact, exceeding these limits would potentially imply additional environmental impacts that did not previously undergo review by the project stakeholders or public.

2. The City of Jordan does not believe the introduction of a significant volume additional truck traffic to Valley View Drive - Option 1 (CH2M Hill, 2012) - is appropriate within the City limits. The City understands Valley View Drive to the South of the gravel pit is not to be used as a traveled route and this can be stipulated as a condition of the IUP. If Valley View Drive was the route to be used, the City believes additional truck volumes proposed would present negative safety and environmental impacts to residents along Valley View Drive. Further, per the City Engineer, the existing Valley View Drive

JORDAN GOVERNMENT CENTER
210 EAST FIRST STREET, JORDAN, MN 55352 • PHONE: (952) 492-2535

pavement cannot support the additional truck volumes proposed and mitigation would be required. Valley View Drive within the Jordan City limits is an inappropriate route for the proposed trucks.

3. The City understands Option 2 (CH2M Hill, 2012) is the Proposer's Preferred Alternative for truck routing. The City is supportive of retaining truck traffic in the TH 169 corridor, but the City is concerned over the viability of this option in light of MnDOT's access management guidelines and comments (e.g. Sherman, 2012). A long term acceptable route should be determined for the likely event MnDOT requires the TH 169 U-turn location be closed. While the proposer has contended that MnDOT would likely be required to provide an alternative access to the commercial properties utilizing the median opening, there are no assurances from MnDOT at this time to confirm the accuracy of this contention or that such facilities would be designed to accommodate the vehicle types and volumes due to the proposer's activities.

4. The FEIS illustrated the potential for adverse noise impacts at the intersection of TH 282 & TH 21 should truck routing options 3 or 4 (CH2M Hill, 2012) be used for routing trucks. The City is unwilling to accept the adverse impacts which would add to an existing exceedance of noise standards. As a result, these options are favored the least by the City.

5. The City has reviewed the proposed traffic option 6 and understands this is MnDOT's preferred alternative. The City prefers this option at its surface over others (except for the no-build alternative), however, it is noted that noise impacts were not evaluated at this location. The City understands the addition of such trucks at relatively close intersection of TH 282/TH 21 would add to an existing noise exceedance. We suggest these impacts be further evaluated before the addition of U-turning truck traffic to this location is allowed.

6. The City favors the no-build alternative, over all other options, with regard to traffic impacts. The City feels that the "ancillary benefit to the public, if any" as noted in 3.8.4 of the FEIS would be outweighed by the environmental consequences of the traffic options 1 through 6 despite implementation of the respective proposed mitigation.

7. The City understands that if the gravel pit is to become operational, appropriate haul routes are necessary now and in the future to provide a safe and livable environment for its residents. The City is concerned over the long term viability of the proposer's selected haul route and users of the gravel pit, as well as the potential for the proposer's or other users' trucks not following the designated truck route. The City believes a truck route determined to be the most appropriate through a public EIS process should be included as a condition of the IUP, subject to revocation for failure of trucks to follow the selected route.

8. The City of Jordan understands the FEIS identified impacts to shallow aquifers in the

form of contamination with flood water and other undesirable chemicals or materials which migrate into the open pond with greater ease than the no-build alternative. The City further understands that proposed mitigation to this issue is to resolve drinking water concerns by way of installing wells at depths that they would be assumedly not impacted. The City rejects the notion this fully mitigates the issue at hand that groundwater aquifers are impacted by the project. The contamination of groundwater aquifers is an unacceptable stewardship of environmental resources.

9. Section 2.1.5. of the FEIS notes that the EAW identified the extension of municipal water service to the site as a possible water supply for impacted properties. The section goes on to note however, that the City does not currently have plans to extend municipal water to this area. In Section 3.10.5 Conclusions, the FEIS notes "*Provision of municipal water to identified at-risk public facilities and residence would be an alternative to and would address the need for ongoing treatment costs and monitoring of the proposed option of deeper wells which might still be at risk.*" These statements in the FEIS appear to inconsistently acknowledge the extension of municipal water service as an alternative.

   The City of Jordan is unwilling to facilitate degradation of groundwater aquifers in violation of state law by offering an alternative "mitigation" in the form of clean water service. The City rejects the notion that extension of municipal water fully mitigates the degradation of aquifers. The extension of municipal water should not be considered an alternative mitigation for consideration on this project.

10. The FEIS acknowledges the need for groundwater quality testing at multiple locations should the open pond be installed and new wells be proposed as mitigation. The City of Jordan believes the developer should not be allowed to perform such tests as it presents a clear conflict of interest. Should the construction of the open pond be allowed and new wells be installed as mitigation, a groundwater monitoring and mitigation plan acceptable to the County and Sand Creek Township should be developed capable of detecting contamination in an appropriate, timely manner and capable of adequately addressing the potential risks requiring mitigation.

11. The City of Jordan is opposed to the developer's use of the site for production of asphalt materials. While the potential for oil leaks and spills may be consistent with other asphalt plants, the magnitude of impacts associated with leaks and/or spills to the exposed groundwater aquifer coupled with that risk is unacceptable. The EIS does not provide any proposed mitigation for the removal of oils as a result of such potential spills. Therefore, the City must assume such removal after a spill is not feasible. The City finds the potential for irreversible environmental impacts associated with an asphalt plant at this site to be unacceptable.

12. The proposed mine pit will present an increased space for the formation of ice that could potentially enter Sand Creek, causing ice jams at downstream location. Proposed mitigation includes the installation of pylons without any engineering or anecdotal

evidence to suggest this proposed mitigation will be effective in preventing ice from entering the creek and ultimately mitigate the increased presence of floating ice. The City of Jordan has noted previously and maintains that it is unwilling to accept additional ice jam associated risks imposed on its residents by the project.

13. The FEIS states that the end use of the site is to form two residential lots. The City of Jordan understands this end use may change to commercial or industrial property in the future. The City does not believe it is reasonable to require monitoring and maintenance of the proposed spillway in the future by private property owners. The City believes this arrangement is not sustainable. This proposal may involve the placement of this burden on private property owners uneducated in the maintenance needs and ultimately a resulting failure of the spillway. For example, the proposed use of a turf mat for stabilization of the spillway will ultimately deteriorate and require replacement. It is unreasonable to expect a private property owner, who may or may not be educated in the inspection requirements of turf mats or even the necessity for inspection, to take on this initiative in the future.

14. The FEIS noted an increased potential for flooding at the SCALE facility, resulting in an increased potential for inflows of flood and or ground water to the City's sanitary sewer system. The City is unwilling to accept inflows and significant amounts of infiltration to its system. Should this "I & I" occur the public will be required to take corrective action. We suggest mitigation to this issue be waterproofing of the sewer system at the SCALE facility.

Sincerely,

CITY OF JORDAN

Mike Shaw
Mayor

Thom Boncher
City Council Member

Jeremy Goebel
City Council Member

Joe Thill
City Council Member

Tanya Velishek
City Council Member

Terry Stier
City Council Member

Jeff Will
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December 23, 2013

VIA EMAIL AND U.S. MAIL

Ms. Kate Sedlacek
Scott County Environmental Health Department
200 Fourth Avenue West
Shakopee, MN 55379

Re: Jordan Aggregates LLC - Final EIS
Our File No.: 14378.002

Dear Ms. Sedlacek:

Pursuant to the Minn. R. 4410.2800, Jordan Aggregates LLC believes the technical parts of the EIS meet the requirements for the responsible governmental unit's adequacy determination. However, the enclosed revised Cumulative Impacts section is more accurately supported by the technical conclusions in the Final EIS. Jordan Aggregates therefore respectfully submits this document and ask that it be incorporated into the Final EIS for consideration during the adequacy determination.

As you know, this document was submitted to you in October 2013. If you have any questions, please let us know as soon as possible.

Very truly yours,

MONROE MOXNESS BERG PA

Matthew S. Duffy
Attorney at Law

MSD/jw

Enclosure

cc: Client (via email w/o enc.);
John McCain, Carlson McCain (via email w/o enc.);
Nick Bonow, Carlson McCain (via email w/o enc.); and

3.10 Cumulative Potential Effects

3.10.1 Background

This section describes cumulative potential effects, both direct and indirect, from the Proposed Project in combination with other past, present, or proposed future actions. This analysis reviews known or proposed future actions and the potential cumulative impacts when combined with the Proposed Project and whether those result in significant impacts which cannot be mitigated.

The Council on Environmental Quality (CEQ) has provided guidance to help analyze cumulative potential effects using an 11-step process to aid in the assessment. CEQ regulations 40 C.F.R. §§ 1500-1508 implement the procedural provisions of the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et. seq.* NEPA requires that an EIS consider three kinds of effects of a proposed action: direct, indirect, and cumulative. 40 C.F.R. § 1508.25 (c). Direct effects are those "caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8. Indirect effects are those "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8. Cumulative effects are those "impact[s] on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." 40 C.F.R. § 1508.7. Whether cumulative effects are significant is determined in terms of context and intensity. 40 C.F.R. § 1508.27. A Proposed Project's context is determined by "the affected region, the affected interests, and the locality." 40 C.F.R. § 1508.27. Intensity is measured by the severity of impact. 40 C.F.R. § 1508.27.

3.10.2 Scoping for Cumulative Potential Effects

Introduction:

Step 1 – Identify the significant cumulative effects associated with the proposed action and define assessment goals.

This step identifies the potential cumulative effects on environmental resources resulting from the Proposed Project. In addition to examining the Proposer's project, this step examines effects from other existing or planned future projects in the Cumulative Potential Effects Study Area (CPESA), defined in *Step 2*. This assessment reviews information for the Proposed Project compiled for this EIS, as well as available information for proposed projects or projects undergoing environmental review that may have similar environmental impacts.

The Proposed Project may affect environmental resources directly or indirectly. However, the role of the cumulative potential effects assessment is to narrow the focus of the cumulative potential effects analysis to the most important issues identified in the Scoping Decision Document and to the traffic and noise issues resulting from a new Preferred truck hauling route. As a result, this analysis focuses on the primary issues identified during the scoping process that have the greatest potential for adverse impact. These include: groundwater levels/groundwater availability to wells; groundwater quality impacts to nearby wells; impacts to the Sand Creek and nearby wetlands; impacts to the City of Jordan's future wells; impacts to traffic; and impacts to noise from hauling trucks.

<u>Groundwater Levels/Groundwater Availability</u>

The RGU hired Barr Engineering to construct a groundwater flow model incorporating potential groundwater effects at the Proposed Project Site and the surrounding area within the area of influence (Barr, 2012). Incorporating major physical aspects of the Proposed Project Site, this model reviewed the existing conditions and site-specific pump testing analysis to review any significant effects to the area of influence and the CPESA. This model simulated the current conditions, including review of the pumping wells and effect on surface water bodies. The model demonstrated that the combined removal of aggregate material, pond surface evaporation, establishment of the pond, and anticipated wash water pumping produced no significant impacts on groundwater levels. Barr's model resulted in nearly identical findings to that of the Proposer's engineers.

Barr's model also showed that while there was a potential for degradation of the quaternary aquifer caused by potential flood water entering the mine and the depth of the mining excavation, the Proposer has proposed to

mitigate impacts on the three private wells currently developed in the quaternary aquifer. As part of this mitigation, the Proposer will develop replacement wells into the lower FIG aquifer with onsite treatment of water aesthetics (Minnesota Department of Health prefers domestic wells in the FIG aquifer because of the existing susceptibility of the surficial aquifer to impacts from surface water.). These private wells are the only human receptors within the area of influence. Barr concluded that a FIG well installed at this location and completed in the Ironton-Galesville (Wonewoc) Sandstone should be able to provide water that is not adversely impacted by flood or mining (*See* §3.6.3, p. 67). As an added measure of protection, the Proposer is no longer proposing to mine all the way to bedrock. Mining is proposed to occur down to elevation 640 as opposed to elevation 600, which leaves approximately 10 to 30 feet of overburden above the top of the FIG. Additionally, the Proposer is proposing to monitor groundwater and surface water for floodwater impacts and fugitive contamination from the mining operation (leaks, spills). Routine monitoring will be conducted in monitoring wells installed in both the surficial aquifer and the FIG aquifer; and also the mine pond, with additional sampling occurring after flood events. Barr concluded periodic monitoring of the FIG to detect possible impacts from the mine in the FIG and nearby off-site private wells should be part of a monitoring plan submitted as part of the CUP (*See* §3.6.3, p. 67).

Because the model identified potential impacts on the private wells now developed in the quaternary aquifer, the Proposer will install new wells at those locations in the deeper FIG aquifer, provide onsite water treatment to alleviate water aesthetics (e.g. taste, smell, etc.), and install a well-monitoring network to review risks caused by potential floodwaters. Therefore, according to Barr, there are no significant groundwater level effects or availability effects that cannot be mitigated by Proposer's mitigation plans.

Groundwater Quality

Barr's model evaluated solute-transport capabilities for this EIS. This model specifically evaluated the effects of potential flooding of the mine area by the Sand Creek on nearby well users (Barr, 2012). The Sand Creek floodwater may carry contaminants and water-borne pathogens onto the mine site from sources upstream of the Proposed Project Site (*See* §3.6.1, p. 55). This floodwater might carry non-reactive compounds (e.g. nitrates and salts) and other water-borne pathogens, so the model simulated floodwaters contains those COCs (Barr, 2012). As noted above, in response to the RGU's comments, the Proposer will replace the two domestic water wells on adjacent properties with wells developed in the lower FIG aquifer and treat for water aesthetics. The Proposer also agreed to install a groundwater monitoring well network, and mine to a shallower elevation of 640 feet. Further, the Proposer agreed to monitor the FIG for potential impacts from flood water and mining activity and provide mitigation in the form of point-of-use treatment for the replacement wells in the event of floodwater impacts to the FIG. There are no impacts to water quality that cannot be mitigated by the mitigation measures proposed by Proposer.

There are no past, present, or reasonably foreseeable projects in the area that have the potential to impact the groundwater quality of the well users in the vicinity of the Proposed Project. Therefore, there are no significant cumulative impacts on groundwater quality.

Impacts to Sand Creek and Nearby Wetlands

Barr's model evaluated the mining operating impact on the wetlands in the vicinity of the Proposed Project Site. Barr's model specifically evaluated whether the Proposed Project would impact stream flows in Sand Creek and nearby wetlands from mining and post-mining. The model indicated the Proposed Project would not cause significant impact to nearby wetlands or flows in Sand Creek because there would only be a reduction in the base flow of Sand Creek of .08 cfs due to mining operations. Barr also modeled a "worst-case" scenario evaluation if Sand Creek developed a "permanent channel meander" into the proposed mine location. In such a scenario, the groundwater flow model predicted an estimated 1.1 cfs base flow reduction in the Sand Creek. This reduction could impact the wetland complex downstream from the mine site. However, the Proposer addressed this "worst-case" scenario by proposing a reinforced spillway and culvert system.

During the IUP process, the RGU and Proposer will address the long-term maintenance of this spillway/culvert system, perhaps through requiring additional financial security to maintain the system. Other alternatives include working with the MDNR on permanently restoring the Sand Creek channel if the need arises.

It is anticipated that the Sand Creek's base flow will be impacted by potential new wells from the City of Jordan (up stream from the Proposed Project Site). Barr's model evaluated pumping associated with possible future City wells

and determined the cumulative effects of the Proposed Project and future City wells could potentially impact the creek's base flow by 0.17 cfs stream flow during low flow periods, such as prolonged summer droughts or mid-winter periods with no runoff occurring.

Impacts to the City of Jordan's Wells

The City of Jordan has identified areas upstream from the Proposed Project Site and adjacent to the Scott County fairgrounds to develop new municipal wells to respond to anticipated 2030 population growth and water demands. Barr's groundwater model evaluated the Proposed Project's potential effects on the City's ability to develop these new wells. The groundwater model determined the Proposed Project will not impact the City's ability to develop these new wells, impact the City's well siting, or alter the wellhead protection in the area.

Barr's groundwater model also evaluated the potential effects of the City's pumping of these new wells on the Project Site. The groundwater model determined that the City's new wells will not have a significant impact on the Project Site. The model indicated that the City's new wells would cause drawdown in groundwater levels at the Project Site of less than .2 feet.

Traffic Impacts

The Proposed Project will not significantly impact regional traffic. The Proposer is working with MnDOT to identify the best haul route for Proposed Project Site and make the necessary roadway improvements. The revised preferred alternative for truck hauling to/from the Project Site is for both south-and north-bound haul trucks accessing TH169 at 173rd Street (Option 2). Under this option, haul trucks with south/west destinations (approximately 20% of total Project Site truck trips) would use regional arterial routes and haul trucks with north/east destinations would merge onto southbound TH169, turn left at the median entrance (approximately 4,730 feet south of the TH169/173rd Street) and then execute a u-turn onto northbound TH169.

Based on the traffic analysis, mitigation measures to improve traffic safety at the proposed haul route include a southbound acceleration lane at TH169/173rd to facilitate haul trucks entering onto TH169, lengthening the shoulder and left turn lane at the median crossing (where the proposed u-turn maneuver will occur), and shoulder improvements and construction of a northbound acceleration lane at median crossing to help haul trucks complete the u-turn maneuver.

Noise Impacts

Based on the noise analysis on the proposed number of daily truck trips, the Proposed Project will not exceed the MPCA's L10 statutory daytime noise standard. Noise measurements were conducted at key locations along the proposed haul truck routes, using trucks similar to those used by Project Proposer. Because the Proposed Project will not cumulatively impact the noise the area, no mitigation is required.

Step 2 – Establish the geographic scope for the analysis

The CPESA for this EIS is bounded on the north by the Minnesota River, on the east by the City of Savage, on the south by Sand Creek Township, and on the west by the City of Jordan. This CPESA enables the analysis to review large, regional changes potentially attributable to the Proposed Project and encompass known or proposed aggregate mining operations.

Step 3 – Establish the timeframe for the analysis

The Proposed Project's estimated life is approximately 2037. For purposes of this EIS, the year 2040 was used because this timeframe is approximately 10 years past the City of Jordan's installation and operation of its new wells. Further, the mine, as proposed, will have reached its maximum size, mining will have ceased, and reclamation will be at or near completion.

Step 4 – Identify other actions affecting the resources, ecosystems, and human communities of concern

Past, present and reasonably foreseeable projects were identified by the RGU. The following projects were reviewed to determine what projects to include in the cumulative impact assessment:

1. Past projects have been completed within the past year (2012) or are under construction. This is evident by a final plat approval or building permits being issued for major commercial developments. Past projects include:
    1. Great Plains Sand: an operational industrial sand mining and processing facility. This operation is located approximately 2 miles northeast from the Proposed Project (downstream) and encompasses 140 acres. According to the EAW conducted for this mining operation, no significant cumulative impacts were found. The study did indicate minor downstream impacts to the Sand Creek and a monitoring plan was approved to evaluate impacts to the creek. Additionally, some minor truck traffic impacts to the existing background traffic.
2. Present projects are represented by the submission of a formal application for review to an RGU. Present projects include:
    a. Merriam Junction Sands: a proposed industrial sand mining and processing facility located approximately 3.5 miles of the Project Site. Proposing to encompass 682 acres, Merriam Junction prepared a scoping EAW, a Scoping Decision Documents was issued, and an EIS is being prepared for this project and an adjacent project. The EIS is currently underway.
3. Future projects are "reasonably foreseeable future" projects in concept form with sufficient detail to quantify development related impacts. These projects include concept plan submissions, environmental reviews, or comprehensive guide plan amendments. Two projects were identified:
    a. City of Jordan: municipal well field development tentatively scheduled for a site approximately 2.5 miles southwest of the Proposed Project Site (upstream).
    b. S.M. Hentges: proposed gravel mine in 2008. This project did not progress, but could be reasonably anticipated as a future expansion of the proposed gravel mining operation if approved.

3.10.3 Affected Environment

Responses to Steps 5, 6, and 7 have been combined.

Step 5 – Characterize the resources, ecosystems, and human communities identified during scoping in terms of their response to change and capacity to withstand stresses

Step 6 – Characterize the stresses affecting these resources, ecosystems, and human communities and their relation to regulatory thresholds

Step 7 – Define a baseline condition for the resources, ecosystems, and human communities

The Proposed Project Site is adjacent to three properties with private wells used for domestic and industrial water uses. The Proposer is proposing new deeper wells developed in the FIG aquifer because of the mining operation. These new wells will supply water to these facilities. Northwest of the Proposed Project Site is the Louisville Swamp with numerous water bodies reflecting the quaternary aquifer. The Sand Creek is adjacent to the Louisville Swamp and water from the creek enters portions of the Swamp, filtering through the eco-system and ultimately discharging into the Minnesota River. Because of the Proposers mitigation plans, neither human nor ecological communities are expected to be impacted by the mining operation.

<u>Sand Creek</u>

The estimated total reduction in the Sand Creek base flow is predicted to be approximately 0.11 cfs from the four projects identified in CPESA: Great Plains Sands; Merriam Junction Sand; Jordan Aggregates; and the City of Jordan future well field. Because the Great Plains and Merriam Junction Sand projects are located 2 and 3 miles downstream, respectively, any potential base flow reductions from those operations will not impact the Proposed Project's operation. However, under a cumulative effects analysis of all of the operations the combined potential base flow reduction is not deemed significant.

Groundwater Level Reductions

Even though the Great Plains Sands and Merriam Junction Sand operation are expected to mine below the water table (similar to the Proposed Project), the drawdown from those operations is not expected to overlap with the Proposed Project's mining operation. Therefore there are no cumulative effects from those operations on groundwater with the Proposed Project.

Drawdown effects from the potential future expansion of the City of Jordan municipal well fields are not expected to be significant, less than 0.2 feet. Some seasonal drawdown variability is expected in prolonged periods of drought or low winter flow conditions. However, this potential "worst case scenario" impact does not change the modeling conclusions.

If the Proposer expands its mining operations into parcels proposed in 2008, then an IUP amendment would be required to evaluate the groundwater and surface water impacts from the expanded mining operation. There is no such proposal currently before the RGU. The RGU can evaluate such a project if and/or when it is proposed. .

Traffic

The Proposed Project is not expected to significantly impact the traffic conditions in and around the CPESA and specifically on TH 169. In addition to the truck traffic proposed by the Proposed Project, Great Plains Sands and Merriam Junction Sand projects will also add truck traffic to TH 169 and were studied as part of this EIS. Great Plains Sands and Merriam Junction Sand will ship most of its product by the existing railroad line adjacent to both properties, which will significantly reduce the number of potential truck trips utilizing TH169 from both projects. Therefore, even though a small number of haul trucks from Great Plains Sands and Merriam Junction Sand may use TH 169 and u-turn south of 173rd Street, there is no cumulative effect from the Proposed Project on CPESA traffic.

Noise

The Proposed Project will not significantly increase the ambient noise in the CPESA. Further, there are no new projects planned for the immediate vicinity, and existing facilities do not exceed the State's noise standards; thus there is no cumulative effect on the ambient noise in the area.

Based on the data collection and analysis, the haul trucks associated with the Proposed Project will not exceed Minnesota's L10 daytime standard for residential areas (*See* §3.9.2, p. 108). If the truck route is approved using the intersection of TH282 and TH 21, further analysis might need to be conducted to confirm that the haul trucks will not exceed the L10 daytime noise standard on residential structures at that intersection(*See* §3.9.2, p. 108).

3.10.4 Environmental Consequences

Step 8 – Identify the important cause-and-effect relationships between human activities and resources, ecosystems, and human communities

Flood waters potentially entering the Proposed Project Site from the Sand Creek may contain contaminants and water-borne pathogens, that may adversely affect the water quality in the water table (quaternary) aquifer and could impact nearby wells in that aquifer (*See* §3.6.1, p. 55). As part of the mitigation plan, the Proposer has offered to develop wells for the three potentially affected properties in the lower portion of the FIG aquifer that will mitigate the effects of any flood waters entering the Proposed Project Site on the water table aquifer and the only human receptors potentially impacted by a flood event. Completing these wells in the lower portion of the FIG aquifer should provide water to these facilities that is not adversely impacted by any potential floodwaters or the Proposed Project's mining activities (*See* §3.6.3, p. 67). Periodic monitoring of the onsite monitoring well network in the FIG to detect possible impacts from the mine and nearby off-site private wells should be part of a monitoring plan submitted as part of the IUP (*See* §3.6.3, p. 67). Further, as proposed by the Proposer, the mining operations will decrease the mine depth staying at or above 640 msl elevation.

There are three potential human receptors down-gradient from proposed mining operation: 1) SCALE Facility; 2) Robling residence; and 3) JAF (this well is outside the predicted impact area, but the Proposer has offered to

develop a new well in the lower FIG aquifer). The Proposer is seeking to mine to an elevation of 640 msl into the quaternary aquifer.

Groundwater

There are no significant cumulative effects on groundwater levels, groundwater quality or groundwater availability from identified projects in the vicinity of the Proposed Project. Based on the modeling, there is the potential for floodwaters containing contaminants and pathogens to reach the mining pond. Floodwaters containing contaminants and pathogens may then mix with the mining pond water, potentially diluting in the mining pond, and could reach the deep mining pit in the water-table aquifer. The modeling cannot predict if that scenario will occur or even the likelihood of contaminants or pathogens reaching deep into the aquifer if such a scenario occurred. Nevertheless, the Proposer's mitigation measures include developing new wells for the down-gradient human receptors in the lower FIG aquifer. The RGU's consultant stated the floodwaters are not predicted to impact the lower FIG so developing two new wells in the lower FIG is the proper mitigation measure. Completing these wells in the lower portion of the FIG aquifer should provide water to these facilities that is not adversely impacted by any potential floodwaters or the Proposed Project's mining activities (*See* §3.6.3, p. 67). In addition, despite modeling conclusions that no impacts are predicted for the lower FIG aquifer, the Proposer will monitor the lower FIG downgradient of the mine pond and provide mitigation in the form of point-of-use treatment for downgradient receptors in the event of floodwater impacts to the lower FIG. As noted above, the Proposer also agreed to decrease the depth of the proposed mine by 40 feet. These measures will mitigate potential impacts on human receptors within the predicted impact area. Because the Proposer's mitigation plan mitigates potential effects on human receptors within the predicted impact area, there are no significant environmental impacts from the Proposed Project.

Step 10 – Modify or add alternatives to avoid, minimize, or mitigate adverse significant cumulative effects
Proposer is continuing to work with MnDOT to address traffic concerns with the proposed truck route alternative (Option 2). However, as noted in the technical analysis in the EIS there is no significant cumulative effect to the traffic in the area.

Proposer addressed the mitigation concerns regarding the quaternary aquifer by mitigating any potential effects on human receptors within the predicted impact area by agreeing to drill new wells in the lower FIG aquifer. Additionally, Proposer will develop a new well in the lower FIG for the JAF facility, even though the RGU's consultant concluded that that facility is outside the predicted impact area. The Proposer also agreed to not mine as deep, leaving a buffer of unconsolidated deposits above the bedrock to address the RGU's concern, and will periodically test the water quality in the water monitoring well network for any potential impacts on the quaternary aquifer or FIG aquifer. With the exception of the three wells noted above, there are no other human receptors between the Proposed Project Site and the groundwater's ultimate discharge into the Minnesota River.

To the extent possible, both feasibly and technologically, the Proposer has proposed mitigation to mitigate potential adverse effects from its operation and there are no significant cumulative effects which ongoing mitigation cannot address. Because Proposer will mitigate those environmental impacts that can be mitigated, the Proposed Project does not impose significant environmental concerns.

Step 11 – Monitor the cumulative effects of the selected alternative and adapt management

As noted above, Proposer has proposed mitigation plans which address known environmental impacts. Impacts to the quaternary aquifer are mitigated by developing wells in the predicted impact area into the lower FIG aquifer. The RGU's consultant stated "Completing these wells in the lower portion of the FIG aquifer should provide water to these facilities ***that is not adversely impacted by any potential floodwaters or the Proposed Project's mining activities.***" (*See* §3.6.3, p. 67) (emphasis added). Nevertheless, the Proposer will still monitor the lower FIG for floodwater impacts and provide mitigation if impacts are observed.

3.10.5 Conclusions

Based on the available technical data provided with the Final EIS, the Proposed Project will not cause significant environmental impacts. The Proposed Project's contribution to some of the identified cumulative potential effects can be reduced by mitigation efforts required in the IUP process:

1. Traffic impacts can be mitigated by construction of the proposed u-turn on TH169 and/or other traffic improvements as recommended by MnDOT. These impacts can be addressed during the IUP process.
2. According to the RGU's consultant, developing the three wells in the predicted impact area in the lower portion of the FIG aquifer will provide sufficient water to the Robling property and the SCALE and JAF facilities. If and/or when municipal water connections are run in close proximity to these properties, connecting to the municipal water source can be explored at that time. Until then, Proposer will monitor impacts from its operation using its water monitoring network. If conditions warrant, Proposer will provide onsite water treatment to address aesthetic and other conditions.
3. Potential Stone Creek meander will be addressed during the IUP process by submitting berm construction plans to the RGU and other applicable state and federal agencies for review and approval.
4. Ice jam mitigation will be discussed and to the extent necessary addressed during the IUP process by submitting a review of the potential for ice jams at the Proposed Project Site and potential mitigation measures to properly address ice jams adjacent to and originating from the Project Site as needed.

The RGU has identified other impacts and the Proposer has offered the following mitigation measures:

1. Potential degradation of the quaternary (surficial/sand and gravel) aquifer – the RGU's consultant has identified the potential for Sand Creek floodwaters containing contaminants and pathogens to reach the mining pond. Floodwaters containing contaminants and pathogens may then mix with the mining pond water, potentially diluting in the mining pond, and could reach the deep mining pit in the water-table aquifer. The modeling cannot predict if that scenario will occur or even the likelihood of contaminants or pathogens reaching deep into the water table aquifer. Nevertheless, the Proposer's mitigation measures include developing three new wells for the down-gradient human receptors in the lower FIG aquifer. Modeling conducted by the RGU's consultant concluded that floodwater is not predicted to impact the lower FIG so the proposed new wells should effectively mitigate this potential impact. As noted above, the Proposer also agreed to decrease the depth of the proposed mine by 40 feet. These measures will mitigate potential impacts on human receptors within the predicted impact area. State statute and rules require the Proposer to mitigate where technologically and economically feasible. Because the Proposer's mitigation plan mitigates potential effects on human receptors within the predicted impact area, there are no significant environmental impacts from the Proposed Project. The quaternary aquifer is already impacted by surface water and will continue to be impacted regardless of the Proposed Project. The MPCA has the authority to require review of any impacts to the quaternary aquifer and recommend mitigation plans or propose remediation.
2. Noise – based on the data collection and analysis accompanying this EIS, the haul trucks to and from the Proposed Project Site would not exceed Minnesota's L10 daytime standard for residential areas. If the haul trucks use the intersection of TH282 and TH21, there might be some noise exceedance, which can be addressed during the IUP.
3. The estimated total reduction in the Sand Creek base flow is predicted to be approximately 0.11 cfs from the four projects identified in CPESA: Great Plains Sands; Merriam Junction Sand; Jordan Aggregates; and the City of Jordan future well field. Because the Great Plains and Merriam Junction Sand projects are located 2 and 3 miles downstream, respectively, any potential base flow reductions from those operations will not impact Jordan Aggregates operation. However, under a cumulative effects analysis of all of the operations, the combined potential base flow reduction is not deemed significant.

Based on the foregoing, because the environmental impacts can be mitigated during the IUP process or by plan approvals for the applicable regulatory agencies, the Proposed Project will not impose significant cumulative environmental impacts on the CPESA.

3.10.6 No-Build Alternative

Under the No-Build Alternative, it is assumed the remainder of the projects included in the cumulative potential effects assessment would be implemented. Those environmental effects were addressed during the environmental review processes for those projects and any cumulative effects are addressed for the Proposed Project during this process. Because the Proposed Project will not pose any cumulative impacts to the CPESA that cannot be mitigated, the No-Build Alternative is substantively no different with or without the Proposed Project.

From:	Thom Boncher
To:	Sedlacek, Kate
Subject:	EIS, Jordan Aggregates
Date:	Thursday, December 19, 2013 12:29:01 PM

December 19, 2013

Kate Sedlacek
Environmental Health Department
200 Fourth Avenue West
Shakopee, MN
55379-1220

Dear Ms. Sedlacek,

Regarding the Environmental Impact Statement for the Jordan Aggregates gravel mining operation, **4.1.2 Ice Jams** reads, in part, *"However, no supportive documentation on the efficacy of the proposed pylons was provided to address this potential impact. As noted above, there is a potential for the proposed pylons to act both ways to thwart ice and debris and thus result in ice jams where they have not previously occurred. This is therefore deemed an unresolved issue".*

This is the first of several unresolved issues noted in the EIS.

4.2.1 Water Supply Wells and Water Quality reads, in part, *"The Project Proposer has not offered an acceptable monitoring plan to monitor water quality in the upper or lower FIG to detect and respond to contamination. There is also no proposed mitigation plan other than point of use treatment should these wells be shown to be adversely impacted from the deep excavation into the aquifer above them which is hydraulically connected to the FIG aquifer through the buried river valley in this area that has been mapped by the Minnesota Geological Survey to have eroded through the entire FIG and possibly into a lower unit."*

Area wells with good quality water will need to be replaced by deeper wells with inferior quality water, and no provisions are in place to provide for necessary water treatment. Further no plan is proposed to monitor for, and respond to contamination to deeper ground water formations, in spite of the fact that they are hydraulically connected to the shallower formations in which the aggregate mine will be operating. Both the Jordan Aquifer (JAF), and the Franconia-Ironton-Galesville (FIG) aquifer are regional water resources, and thus a concern to all cities, including Jordan, in the region.

4.3 Traffic reads in part, *"Therefore, a safe truck route to serve this Project remains an unresolved issue."*

Until this issue is resolved, the health and safety of area residents is at risk.

4.4 Noise reads in part, *"Noise impacts from any future portable concrete or asphalt plant have not been assessed in this EIS." And, "In consideration of the proposed changes to the truck route in addition to the location of the processing area's proximity to the Scott County Juvenile Alternative Facility, the option of any future night time operations are assumed to be precluded unless it can be demonstrated in the future that applicable Minnesota noise standards will not be violated."*

The developer has stated his intent to operate an asphalt plant at the aggregate mining site. He has also stated his intent to operate the site around the clock when business merits. These conditions are not considered in the EIS, in spite of the fact that they would obviously affect the environment in Jordan and surrounding areas.

This section also states in part, *"Permitting the Project knowing that noise excedence is possible to occur as a result of the uncontrollable additional rail traffic noise in combination with the Project truck noise may be precluded by state noise rules."*

This EIS recognizes the possibility of noise issues, even going so far as to question whether such noise would be permitted under state rules, yet no mention is made of testing or mitigation.

Significant portions of the EIS lack detail, either because the developer has not provided information, or because involved agencies have not fully accepted parts of it. This is in spite of the fact that the original scope of the EIS was severely limited. Therefore, I urge that Scott County REFUSE THIS EIS AS INADEQUATE.

Ms, Sedlacek, please forward this letter to the Members of the County Board, either in email or paper form.

Thank you for your time and consideration.

Respectfully Submitted,
Thom Boncher
113 Marlane Circle
Jordan, MN 55352

cc:
Members of the Scott County Board
Barbara Marschall
Dave Menden
Jon Ulrich
Joe Wagner
Tom Wolf
Scott CountyGovernment Center
200 Fourth Ave West
Shakopee, MN 55379

12/18/2013

Ms. Kate Sedlacek
Environmental Health Department
Scott County
200 4th Avenue W.
Shakopee MN 55379

RE: Jordan Brentwood Citizens Comment Letter
Jordan Aggregate FEIS

Dear Ms. Sedlacek:

We have reviewed the Final Environmental Impact Statement (FEIS) prepared by Scott County regarding the proposed gravel pit development by Jordan Aggregate. We would like to submit the following comments.

I. We are concerned about the number of trucks that will be making round-trips per day. The estimated number given by the developer is 110 round-trips per day during periods of peak demand. We feel that this figure should be incorporated as a maximum into the future IUP.

II. We understand that the preferred truck route involves the TH 169 corridor. However, we are concerned that MNDot may close this option. There has not been a confirmation from MNDot that a median opening will be made available.

III. With the possibility regarding the TH169 corridor, we are concerned about the possibility that Valley View Dr. could be used as a truck route. The Brentwood Homeowners Group strongly opposes the use of Valley View Drive for a truck route. We are concerned about the issues of safety, noise, and environmental issues with air and noise qualities. Also the current pavement cannot support this additional truck traffic. There has been no mitigation mentioned regarding the issue of future maintenance of the street should the TH169 option be closed. This maintenance is an additional expense the City of Jordan and the Valley View residents cannot withstand.

IV. There has been no mention of enforcement with regard to the number of trucks, the containment of gravel, and possible spillage.

V. Our other main concern is the possible contamination of ground water. We must protect our water not only for today, but for the future. There are just too many possibilities for contamination whether through ice jams, chemical leakage, or flooding. The mitigation measures would result in the City of Jordan becoming responsible for cleaning up any future accidents or mishaps.

Thank you for the opportunity to express our feelings and concerns.

The Brentwood Citizens Group

Carl Day
310 Valley View Dr.
Jordan MN 55352

Wilfred Stocker
140 Valley View Dr.
Jordan MN 55352

Wayne Fahrenkamp
109 9th Street
Jordan MN 55352

From: Travis Cherro
To: Sedlacek, Kate
Subject: FEIS question.
Date: Monday, December 30, 2013 8:37:34 PM

On Monday, December 30, 2013 8:36 PM, Travis Cherro <tjc2212@yahoo.com> wrote:
I guess my biggest concern is they say that they have done an extensive well survey of the area and yet my well is not included in any survey along with my two neighbors. My address is 18200 Valley Vlew drive. My neighbors addresses are 18180 Valley View Drive and 5325 Circle Drive. My well has never been on any survey they have published in the EAW, DEIS, or FEIS. Just curious as to why not that would mean that they do not even know which aquifer I am pulling from if my well is one that might need to be replace right away if I am in the St. Lawrence aquifer.

Thank you.
Travis Cherro
18200 Valley View Drive
Jordan, MN 55352

From:	Kathy Lapic
To:	Sedlacek, Kate
Subject:	Comments regarding the Jordan Aggregates Environmental Impact Statement (EIS)
Date:	Friday, December 20, 2013 5:56:06 PM

December 20, 2013

Dear Ms. Sedlacek,
Please note the following comments regarding the Jordan Aggregates Environmental Impact Statement (EIS).

Excerpt from 2.1.5 Alternatives That Incorporate Reasonable Mitigation Measures
The EAW identified, as a possible alternative water supply for the area, the extension of municipal water from the City of Jordan. The City, however, does not currently have plans to extend municipal water to this area.
This is incorrect. The City of Jordan informed the Scott County Board that the City would not participate in water pollution mitigation efforts beyond the City Limits.

Excerpt from 4.1.2 Ice Jams
The potential for the mine pit to increase the likelihood of ice jams in Sand Creek was partly addressed by the inclusion of the 200-foot long spillway, which will promote the break-up of ice and debris jams and further prevent the potential for berm erosion. Pylons spaced 30 feet apart along most of the side of the site adjacent to Sand Creek was proposed to conceivably restrain ice originating on the mine pond should flood conditions fill the pond and raise ice high enough to be pushed by wind into Sand Creek. A 36-acre pond could contribute a significant amount of relatively thick ice to exacerbate downstream ice jams at 173rd Street. However, no supportive documentation on the efficacy of the proposed pylons was provided to address this potential impact. As noted above, there is a potential for the proposed pylons to act both ways to thwart ice and debris and thus result in ice jams where they have not previously occurred. This is therefore deemed an unresolved issue.

Excerpt from 4.2.1 Water Supply Wells and Water Quality
Because water from the existing SCALE and JAF wells likely have better aesthetic characteristics than untreated water from a FIG aquifer well, provisions should be made for treating water from new deeper wells to address taste and odor issues. Point-of-use water softening may also be needed to address water chemistry concerns for fixtures and boiler use. The Project Proposer has not offered an acceptable monitoring plan to monitor water quality in the upper or lower FIG to detect and respond to contamination. There is also no proposed mitigation plan other than point of use treatment should these wells be shown to be adversely impacted from the deep excavation into the aquifer above them which is hydraulically connected to the FIG aquifer through the buried river valley in this area that has been mapped by the Minnesota Geological Survey to have eroded through the entire FIG and possibly into a lower unit."

We see two problems here. First is the fact that area wells which currently have aesthetically satisfactory water will need to be replaced by deeper wells which are not as aesthetically satisfactory, and no provisions are in place to provide for necessary water treatment. Second, is the lack of a monitoring and response program for possible contamination to deeper ground water formations, in spite of the fact that they are hydraulically connected to the shallower formations in which the aggregate mine will be operating. Both the Jordan Aquifer (JAF), and the Franconia-Ironton-Galesville (FIG) aquifer are regional water resources, and thus a concern to all cities, including Jordan, in the region.

Excerpt from 4.3 Traffic
The Project Proposer's preferred traffic route for hauling trucks (Option 2) will require improvements to the intersection of TH 169 and 173rd Street. A 1,670-foot long acceleration lane would likely be needed on TH169 south of the 173rd Street intersection. The left-turn lane on TH169 at U-turn location will likely need to be lengthened to 690 feet (plus 180 foot taper) to accommodate deceleration and storage. A wider shoulder at the U-turn location is recommended to accommodate u-turning trucks and a northbound acceleration lane will need to be extended. Total cost of all mitigation is estimated to be approximately $300,000. Changes to TH169 will require a permit from MNDOT. Improvements to 173rd Street north of the Project site may also be needed to bring this road up to 10 ton capacity. MNDOT has stated that Option 2 is not their preferred alternative and suggested an additional option which has been presented as Option 6. There are remaining concerns about the feasibility of Option 6 and the potential noise impacts to the closest residential property. Funding for designing and constructing this option have not been addressed. Therefore, a safe truck route to serve this Project remains

an unresolved issue.

MnDOT has proposed traffic option other than the options originally presented in the draft EIS. Questions remain about design, funding and construction for this option. Thus the EIS includes a statement that a safe truck route remains an unresolved issue. Given the number of Jordan residents who use TH169, and the related intersections every day, We must point out the risks to our residents, and request that the issue be considered and resolved before any further actions are taken on this EIS.

Excerpt from 4.4 Noise
A recommended mitigation for noise is to limit hours of hauling to daytime hours of between 7:00 a.m. and 10:00 p.m. to avoid the potential for exceeding Minnesota residential noise standards for nighttime hours at the nursing/senior home. The Proposer has stated that operation hours will be limited to between 7:30 a.m. to 9:30 p.m., eliminating the possibility of nighttime violation of the noise standards. Noise impacts from any future portable concrete or asphalt plant have not been assessed in this EIS. The Proposer must meet noise standards with the concrete and/or asphalt plant operation both from the operation of the plant and mine relative to the nearby Juvenile Alternative Facility a NAC 1 classified receptor and from associated truck traffic to receptors on Valley View Drive and 173rd Street.. In consideration of the proposed changes to the truck route in addition to the location of the processing area's proximity to the Scott County Juvenile Alternative Facility, the option of any future night time operations are assumed to be precluded unless it can be demonstrated in the future that applicable Minnesota noise standards will not be violated.

Noise testing identified that there are locations associated with truck route options 3 and 4 that may already be experiencing Minnesota Noise Standard exceedance. Should these routes be considered as options, additional assessment in accordance with MnDOT requirements may be needed. Cumulative noise impacts from the anticipated increase in rail traffic transporting silica sand from several area mines may become a future concern especially for the nursing/senior home. Permitting the Project knowing that noise exceedance is possible to occur as a result of the uncontrollable additional rail traffic noise in combination with the Project truck noise may be precluded by state noise rules.

Again, there are multiple instances where environmental impact assessments do not fully consider possible environmental effects. And while the EIS recognizes the possibility of noise issues, even going so far as to question whether such noise would be permitted under state rules, no mention is made of testing or mitigation.

The developer has stated his intent to operate an asphalt plant at the aggregate mining site. He has also stated his intent to operate the site around the clock when business merits. These conditions are not considered in the EIS, in spite of the fact that they would obviously affect the environment in Jordan and surrounding areas.

Significant portions of the EIS lack detail, either because the developer has not provided information, or because involved agencies have not fully accepted parts of it. Therefore, we urge Scott County to refuse the EIS as inadequate.

Thank you for your time and consideration.

Respectfully Submitted,

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