Formal Response to EAW Questions

Crow Pit Gravel Mine; Greenfield MN

Introduction

An Environmental Assessment Worksheet (EAW) for the proposed Crow Pit Gravel Mine Expansion (Project) has been prepared by Superior Sand and Gravel and reviewed by the City of Greenfield. This process has followed the State of Minnesota environmental review requirements as established in Minnesota Rule Chapter 4410. Superior Sand and Gravel is the project proposer and City of Greenfield is the Responsible Governmental Unit (RGU). The draft EAW was filed with the Minnesota Environmental Quality Board (EQB) and circulated for review and comments to the required EAW distribution list. A Notice of Availability for the EAW was published on the City of Greenfield's proposed development project webpage (https://greenfieldmn.gov/devprojects) on October 8, 2024. Physical copies of the EAW were available at Greenfield City Hall and the Rockford Great River Regional Library on October 14, 2024. No official public hearing was held; however, a public information meeting was held for surrounding neighbors on Thursday October 10, 2024 at Greenfield City Hall. Notice was mailed by the applicant to property owners within general proximity to the Gravel Pit property boundary. The meeting was hosted by representatives of Superior Sand and Gravel including owners, managers and engineers from Carlson McCain and facilitated by Greenfield's consulting planners. Comments were collected at that meeting and are included in the official record. The EAW official comment period began on October 15, 2024 with publication in the EQB monitor. Official comments were received on the EAW through November 14, 2024. No additional comments have been received after the close of the comment period.

Comments were received addressing the EAW and in some cases addressing the request for a conditional use permit as required from the City of Greenfield as the land use entitlement for the aggregate extraction. Comments were received from the following:

Agency Responses

1. Minnesota Department of Natural Resources, Division of Ecological and Water Resources
2. Minnesota Pollution Control Agency
3. Metropolitan Council
4. Rockford Area School District 883

Community Member Responses

1. Adam and Paige Wachter
2. Tim and Jessica Bellin
3. Stefanie Giesmann
4. Michelle Cooper

All comments are attached to the end of this response.

The following represents the formal response to the comments submitted. The comments are organized by the source of the comment, the comment/question offered, followed by the response in italics. While the responses focus on the EAW, some references and deferrals of final response are made in reference to the Conditional Use Permit process.

Agency Comments and Responses

Minnesota Department of Natural Resources (DNR), Division of Ecological and Water Resources

1. Page 9, Zoning. Part of the project area is located within the shoreland of the Crow River. Extractive uses require a Conditional Use Permit (CUP), and DNR should receive a notice of public hearings for CUPs. Extractive standards in the shoreland rules can be found in Minn. Rule 6120.3300, Subp. 9.

   Comment noted. The CUP process will follow the EIS determination. A public hearing to be held by the Planning Commission has been scheduled for December 10, 2024. Notice of said public hearing has been sent to the DNR, is posted on the city website, and will be published in the official newspaper.

2. Page 13, Groundwater. This section states that a geotechnical report shows depths to groundwater ranging from 19.6 to 20.6 feet below ground surface along the east portion of the site to 5.0 to 10.8 feet below ground surface in the western portion of the site. The project description states that excavation will occur from approximately 10 to 25 below the surface, and that it will not extend below the seasonally high water table. It is not clear how excavation will avoid the seasonally high water table based on the proposed depth of mining.

   The geotechnical report referenced only considered groundwater separation distance at the boring locations completed and did not take into account varying topography of the expansion area. The EAW will be revised to account for existing topography to state the depth to groundwater of the Phase 2 Expansion Area ranges from 5 to 35 feet. Mining will not extend into the water table. If groundwater is observed, mining will be halted at those grades. SSG may pot-hole discreet locations to determine groundwater elevations to ensure mining does not extend into the groundwater table. Three feet of separation from groundwater is maintained at the proposed location for the infiltration pond. Infiltration ponds are inspected and maintained regularly according to the Nonmetallic Mining Permit issued by the MPCA which SSG complies with. SSG Inspectors are certified by state programs.

3. Page 15, Stormwater. Please ensure that the Stormwater Pollution Prevention Plan is consistent with the approved Blanding's turtle avoidance plan, and that the avoidance plan is attached to the SWPPP.

   Comment noted. The Stormwater Pollution Prevention Plan will be reviewed for consistency with the approved Blanding's turtle avoidance plan, and the avoidance plan will be attached to the SWPPP. This will also be a condition of approval in the CUP.

4. Page 18, Rare Features, Section 14.c. Please note that this project does have the potential to impact the state-threatened Blanding's turtle. Blanding's turtles nest in sandy, upland, often sparsely vegetated areas, including sand and gravel piles. This project will create potential nesting habitat during operation and may attract Blanding's turtles attempting to nest, which is why an avoidance plan was required for this project. DNR considers the risk to be minimized if the avoidance plan is followed.

   Comment noted. Following the Blandings turtle avoidance plan will be added as a condition of approval in the CUP.

5. Page 28, Visual. Given the proximity to a major river corridor, we recommend that project lighting minimize wildlife impacts. Animals depend on the daily cycle of light and dark forbehaviors such as hunting, migrating, sleeping, and protection from predators. Light pollution can affect their sensitivity to the night environment and alter their activities. In addition to the undesirable effects of upward facing lighting, the hue of lights can also affect wildlife. LED lighting has become increasingly popular due to its efficiency and long lifespan. However, these bright lights tend to emit blue light, which can be harmful to birds, insects, and fish. The DNR recommends that any projects using LED luminaries follow the MnDOT Approved Products for luminaries, which limits the Uplight rating to 0. A nominal color temperature below 2700K is preferable for wildlife, and so we recommend choosing products that have the lowest number for backlight and glare (all approved products should already be 0 for Uplight). We also recommend that all non-essential lighting be turned off during the Mayfly hatch as well as follow the Audubon Society's Lights Out program. This program advocates for darkening all buildings and structures during the bird migration from midnight until dawn March 15 - May 31 and August 15 - Oct 31. Information on this program can be found at: http://mn.audubon.org/conservation/lights-out-faq.

   Comment noted. Requirements related to the lighting recommendations stated will be added to the conditions of approval of the CUP. In addition, in the event any lighting is part of the project, the applicant will be required to meet the City of Greenfield lighting standards in the zoning ordinance which apply dark sky standards.

6. 6. Page 22, Dust and Odors. This section mentions the application of calcium chloride as a dust suppressant. Please note that chloride released into surface water and groundwater does not break down and can accumulate to levels that are toxic to plants and wildlife. We recommend avoiding products that contain chloride for dust suppression.

   Comment noted. A condition of approval will be addressed in the CUP stating that chloride dust suppressants should only be used as a last resort for high-traffic areas.

Minnesota Pollution Control Agency

1. The Pioneer-Sarah Creek Watershed Commission was not mentioned in the unit of governments. Section 9.

   The EAW will be amended to add The Pioneer-Sarah Creek Watershed Commission as a unit of government and will be provided CUP application materials for project review.

Metropolitan Council

1. Item 10. Land Use (Freya Thamman, 651-602-1750) Parts of the expansion are shown to have Regionally Significant Ecological Areas of Moderate Quality (https://gisdata.mn.gov/zh_TW/dataset/env-mlccs-regional-corr-areas). The Council encourages consideration and preservation of any higher quality natural resources. The City's 2040 Comprehensive Plan discusses and identifies aggregate resource areas. As part of the City's 2050 planning process, this expansion area should be included in the City's Plan.

   Comment noted.

2. Item 18. Green House Gas Emissions (MacKenzie Young-Walters, 651-602-1373) Discussion of anticipated greenhouse gas emissions is adequate and proposed mitigation measures are

appropriate given the nature of the project. The project proposer should also consider the use of biodiesel to reduce emissions.

Comment noted.

Rockford School District

While the district responded to the EAW notice, no substantive comment or questions were offered that require a response.

Resident/Neighbor Comments

Note to reviewer – in some cases, the comments and questions are abbreviated or summarized to highlight the key issue being emphasized. The full comment is included in its original form in the attachments. The response is intended to address the full context of the comment or question being asked to the degree possible.

Adam and Paige Wachter (Residents, Hanover, MN)

1. If the mine expansion proceeds, bringing dust and air particles even closer to our home, the risk to their health will dramatically increase.

Comments noted. Dust suppression methods would be used throughout the duration of the mining process and will be included as conditions of approval for the CUP. It will not always be possible to keep fugitive dust particles contained due to weather conditions but members of the public should inform the City of Greenfield if fugitive dust control methods are consistently insufficient. If so, the City will work to address the matter and determine possible additional mitigation methods as part of enforcement mechanisms through the CUP. SSG maintains an Air Permit with the MPCA which stipulates air testing for fugitive dust every 5 years as well as regular testing for Mine Safety and Health Administration (MSHA) regulations: https://www.msha.gov/miner-health-matters/dust-control-and-sampling
Testing has previously met required standards.

Tim and Jessica Bellin (Residents, Hanover MN)

1. The EAW is not accurate. Our property and several properties next to us, which are closest to the proposed gravel mine, were not included in the study. To us it is very concerning that the closest homes to the proposed gravel mine were not acknowledged, and it leads us to believe this was either overlooked or intentionally not included. Given this, it makes us question the validity of the EAW.
    a. In referencing figure 4, Hennepin County land map - we noticed it does not show 4 new homes that have been built over the last 3 years and 1 home that has been there for nearly 40 years. These homes all sit directly across the river from the proposed gravel mine and are the closest properties to the project
    b. Figure 7: Minnesota Well Index Map, - this is missing our Domestic Water Supply Well and 3 of our neighbors Domestic Water Supply Wells. Again, these have all been excluded from the EAW.
    c. In addition, several slides with aerial visuals do NOT have any of our homes shown on the images. This is very concerning and quite frankly a bit suspicious.
    d. We would think that at the very least the EAW should be redone to show our current homes and indicate our Domestic Water Supply Wells.

The properties and wells on the west side of the river in Hanover will be added and a revised

EAW issued by December 3rd, 2024, when the city will make determination on the need of an EIS. Figures will be updated with the missing residences and wells. The most recent readily available, public, and highest-quality aerial images of this region are from 2020, so aerial images did not show homes constructed within the last 4 years. The newly constructed homes were not intentionally excluded from the EAW.

2. The proposed berm would NOT adequately screen our property from sound, contaminants in the air and visual nuisances. After traveling around the existing gravel mine it looks like there is a taller berm that adequately screens out work that goes on inside the current mine. We would think that our home would be held to the same standard. The proposed berm is on a slope toward our property and much smaller and therefore we believe should be reassessed. We would hope that a higher berm and leaving more trees would be considered to help cut down on noise, dust and visuals. Seems like it would be a commonsense approach.

   Comment noted. Additional viewshed analysis will be prepared for use in the consideration of the CUP. Existing vegetation will be left in-place within 150 feet of the riverbank on the Hennepin County side of the Crow River. This existing vegetation will provide screening to site activities, dust, and noise. The berm will be constructed to be approximately six feet in height. A condition of the CUP will be to explore native plant materials as a landscape pattern that when grown to a mature height will provide additional screening. It will not be possible to completely screen all mining activities within Phase 2. The homes were built across the river from an active gravel mine, seeing sand and rock stockpiles and equipment is not considered a nuisance. There will be controls in place to mitigate nuisance visual conditions such as dust clouds, bright lights, etc. which have been shown to meet current state standards.

3. Concerns for the wildlife along the river. With a gravel mine proposed this closely to the river, we're concerned about the wildlife that lives along and in the river. We often see Blanding turtles on the rocks along the shoreline, eagles, and among other wildlife.

   Comment noted. Possible impacts to Threatened and Endangered Wildlife were reviewed in the EAW. Possible impacts to Blandings Turtle were identified and the applicant has completed a Blandings Turtle Avoidance Plan, which was approved by the DNR and must be implemented as a condition of approval of the CUP.

Stefanie Giesmann (Resident, Greenfield, MN)

1. Phase 1 is referenced in terms of processing which is to occur there on the mine floor; does the processing stay in phase 1 or move to phase 2? There seems to be conflicting statements in the EAW, please clarify.

   Phase 1 has been completely mined. The processing equipment is proposed to remain in the Phase 1 mining area, which may be addressed as a condition of approval of the CUP. Due to this, the processing area would not be fully reclaimed until the completion of the Phase 2 mining area.

2. What is "specialized mining or processing equipment that is called out to be "occasionally brought in"? What does that entail and what are the environmental impacts of this equipment?

   Specialized mining equipment would include crushers, wash plants, screen plants, and are subject to the MPCA Air Permit, Nonmetallic Mining Stormwater Permit and regulations

enforced by the state of Minnesota, as well as MSHA regulations. Maintaining compliance with these permits and regulations will be included as condition of approval in the CUP.

3. Property line set-backs: how is an appropriate distance determined related to noise and air pollution? - Ex: this request includes Mining w/in 50 ft of property line whereas Hanover requires 200 ft from residence or residential zone; 100ft from property line; 100 ft from right of way. - Processing in this CUP/EAW is stated to occur w/in 200 ft of property (Hanover 250 property line; 500ft residential)

   The City of Greenfield has setback standards for structures and some setback standards for non-structures in its zoning code; however, there are no specific standards for mining operations. Existing setback requirements will be enforced to the extent they are apply. Through the Conditional Use Permit process, the city will explore reasonable setback provisions for mitigation purposes as conditions of approval.

4. Application states that Mining & processing operations will not take place within the 100 yr flood plain and will be set-back a minimum of 150 ft from the ordinary high water line. Will materials also be stored outside of these boundaries?

   Material storage will be prohibited within environmentally sensitive areas including floodplain areas, shoreland impact zones, wetlands, etc. This will be included as a condition of the CUP approval.

5. The EAW specifies: The western property boundary of the expansion area contains shoreland and floodplain along the Crow River. Will any mining occur in the Shoreland district? If yes, how does that align with current zoning requirements which require a City engineer to Certify specific criteria are met if more than 50 cubic yards of material are moved? (sec 152.107 B4)

   Yes, mining is proposed within the shoreland area. The mine will be required to follow the Extractive use performance standards for the shoreland district (§ 152.073 D). An extractive use site development and restoration plan shall be developed, approved by the city and followed over the course of operation of the site. The standards outlined in Section 152.107 B4 will be required to be followed. Plans will be reviewed an approved by the City Engineer and Planner.

6. Will the haul road be paved or any other roads to diminish dust/air pollution impact?

   There are no current plans to pave the haul road. Similar fugitive dust control measures as are used within the mine will be used to control dust on the road. If these measures are concluded to be consistently insufficient additional action may be taken to control the dust which may include paving the haul road. This will be addressed as a condition of the CUP approval.

7. How will air pollution complaints from dust be handled? How will it be determined if further air pollution mitigation is needed? Is there any type of ongoing monitoring or testing for nearby residents? Who would conduct testing/enforcement and would this occur during different processes such as crushing, sorting, trucks hauling etc?

   The processing equipment is included in the MPCA Air Emissions General Permit. The processing equipment is subject to operating standards which include fugitive dust control measures. This permit requires monitoring, reporting, and inspections related to dust levels. Water or in some cases commercially available dust suppressants will be applied to prevent avoidable amounts of dust. Additionally, the recessed nature of the operations creates a topographic barrier and further reduces fugitive dust emissions associated with the processing equipment. If there are

consistent amounts of avoidable dust in the air the City should be notified so that additional third party testing can occur and additional mitigation measures can be considered.

8. Will this mine operation include the mining or processing of Silica?

   No, the gravel mine will not be mining or processing silica sand.

9. The current Gravel Pit (Phase 1) is stated to be actively mined for aggregate in the EAW and states Mining will be continued in the current phase. However, it was communicated in the community meeting that mining has concluded in this section and the EAW also states "there is nothing left to mine and thus the need for the Expansion". Why not finish Phase 1, complete using this area, restore completely, and then move to Phase 2 to minimize overall environmental impact?

   Since the processing equipment will be stored in the Phase 1 area this portion will remain open. Areas of Phase 1 not used for storage will be restored. Correct, EAW will be edited to clear up confusion.

10. Reclamation requires 323,500 cubic yards. Of this 164,900 cubic yards of fill will be imported with the remainder onsite. Averaging reclamation of 17,900-35,700 cubic yards per year. How will the operators confirm and identify the soil fill sources being brought on site are not contaminated? Will there be soil source tracking? If contaminated will there be testing or any kind of soil tracking? Hanover's IUP requires this (section E14)

    Contaminated Soils are identified and tracked by the MPCA. Commercial Sitework and Road Construction projects along with the responsible government unit for the jurisdiction follow MPCA guidelines for environmental due diligence, providing early warning of contaminated soils and a remediation process prior to the material being excavated at the project site. The MPCA then establishes a chain of custody for the contaminated material, ensuring the material is disposed of at an approved landfill. Analyticals for soils from projects requesting disposal at the Crow Pit site are collected and reviewed when the project is bid. This is done through the MPCA's Brownfields Program, which provides a legal framework and published Guidance that promote proper management of soil with (potential) contamination. SSG does not import soil from any project where contaminated soils are believed to exist. The proposed end-use for the Crow Pit is agricultural and does not require on-going analytical testing. Incoming loads with possible contamination will be flagged by pit operators and further action will be taken if conditions require.

11. Reclamation plans call for storm water to flow in a "similar fashion" prior to mining. Who determines final grading/reclamation is satisfactory for environmental impact? Will a civil engineer certify?

    Yes, the City engineer will inspect the site once the reclamation processes has been completed.

12. Will reclamation soils be tested for SRV compliance?

    No. Soil Reference Value (SRV) Screening Limits are not applicable for the agricultural end-use of the site.

13. What is the timeline to address noise pollution complaints? How and who will determine if the response is appropriate?

    A condition of approval will explore a process for a rapid response plan with the applicant to address issues related to compliance and nuisances. City Staff will be responsible for responding

to nuisance complaints and determining appropriate responses.

14. Is this site large enough to mitigate noise concerns and stay below MN Pollution Controls standards for surrounding residents?

    Based on the noise studies conducted the activities in the mine are expected to be within the required noise thresholds. These noise studies are based on monitoring stations located at neighboring property lines where the Noise Area Classification 1 requirements start. The site is large enough to remain within legal noise requirements. A condition in the CUP approval will be explored to actively monitor noise compliance matters.

15. Can an independent party test and confirm noise pollution vs a 3rd party who is hired by the Operators? This is a conflict of interest. Funding for testing could be provided by the Operators w/test contracting and coordination of testing conducted by the City.

    On going noise monitoring and testing will be explored as a condition of approval. Any testing will be required to be done by a qualified entity. City staff will be required to review and accept the study results.

16. Concrete crushing – approximately how many cubic yards will be crushed annually? What is the anticipated duration for crushing, timing etc. Can that be specified?

    Historic averages are approximately 60,000 tons crushed annually for similar sites. Typical crushing projects last between 15-20 business days at a time and occur on a job-by-job basis. Local projects and market demand fluctuate such that crushing operations at the site cannot be estimated during any given construction season.

17. Other local gravel pits limit to a 2 week period. Where will crushing occur?

    Crushing will occur in Phase 1 of the site where indicated on the site plan.

18. How will noise pollution be monitored during this process? Who will ensure proper noise pollution requirements are being met during activities such as concrete crushing, rock sorting etc?

    On going noise monitoring will be explored as a condition of approval through the CUP to ensure noise standards are consistently being adhered to.

19. Will there be berms placed on the Crow river side attempting to mitigate noise for the Hanover homes?

    Yes, berms will be constructed along the western side of the mine along the river to mitigate noise and air pollution. Berms will be seeded with prairie vegetation adding a few feet of additional screening. Trees within the 150' buffer between river and mine will also remain and provide more mitigation.

20. Will the count of residential houses w/in 0.25mi be updated to include the new housing development which is not accounted for in the EAW?

    Yes, the EAW will be updated to reflect the housing that was missed in the initial EAW submittal to the EQB.

21. The EAW states: “The MPCA enforces noise standards at mining facilities for which it has issued and air permit. The facility is operating under an air permit for processing activities.” Does this mean all noise created will fall under MPCA noise standards, or only those related to the processing?

The mine falls under MPCA noise standards for all activities taking place within the mine. These standards are based on Minnesota's noise rules and which are applicable to all uses in Minnesota. The Air Permit requires some additional monitoring and inspection of compliance with those rules.

22. Will noise requirements be subject to NAC 1 or NAC 2? Both are listed in the EAW and it's unclear

    Noise Area Classifications (NAC) are based on the land use of a location. NAC 1 is Residential housing, religious activities, camping and picnicking areas, health services, hotels, educational services. NAC 2 is Retail, business and government services, recreational activities, transit passenger terminals. The residential uses around the site will be subject to NAC 1 while the agricultural areas are subject to NAC 3. The measure is based on the noise level at the closest edge of the relevant land use. Previous tests showed all noise was below NAC 1, the most stringent screening limit.

23. How can the EAW state that the project will generate "similar noise levels to existing conditions" when no mining or processing is currently occurring?

    The EAW has been edited to clarify that the noise levels will be similar to noise levels during recent years when the mine was fully operational.

24. Current projections for traffic only reference Average Daily Trips (ADT) of 55-73 loads daily; 200 max. This equates to 400 trips. Why were asphalt trucks not included daily trucking in estimates?

    The high end of the estimated total trips without the asphalt plant is 78. Asphalt plant vehicles were not included in the average daily traffic because the asphalt plant is not planned to be operated in the near future. If the asphalt plant were running, asphalt paving truck traffic would replace gravel hauling for the duration of the plant being in operation thus the net impact on traffic would be minimally different.

25. When the Asphalt plant is up in production the high daily estimated is another 200 trucks, does that mean 400 trips?

    Truck estimates have been reviewed with SSG and revised based off what SSG thinks may be practical for a given project. The estimated high end for daily total trips will be revised in the EAW to 100 loads per day which corresponds to 200 trips per day and is a theoretical high estimate which would occur infrequently. Asphalt production estimates were calculated at 55 to 73 loads per day on average, corresponding to 110 to 146 trips per day.

26. What are requirements for keeping the roadway clean and clear of dust/hazards? How will this be accomplished?

    Similar to the mining area, mitigation strategies for fugitive dust are available such as limiting site speeds inside the mine, water control measures, sweeping of paved roadways, and commercially available dust suppressants. These will continue to be conditions of the CUP.

27. How can the EAW state that "The Project is not expected to have an adverse impact on traffic or traffic patterns. The Project would shift an Active aggregate mining location to an adjacent location", when the EAW also states there is nothing left to mine (mining is not occurring) and there is also not an asphalt plant being operated, nor has one been operated in the last approx 20 years?

    The EAW will be corrected to state traffic will not be adversely impacted as has been noted during peak operation when Phase 1 was being actively mined. The EAW is not saying there will

be no impact at all, just not a significant adverse impact. The estimated traffic levels are below the threshold required for a more intensive traffic study.

28. What level of mining is considered above water table? The application states mining will not occur below the water table. It also references the Seasonable high-water table – how is this determined as it pertains to the level of mining above the water table?

    The seasonal high water table can be avoided by potholing at discrete locations across Phase 2 to ensure it is not mined into. Mining grades were developed to stay above the groundwater table as measured at the time geotechnical borings were completed.

29. Other mines (ex: Hanover) require mining to be 10 ft above water table – how is an appropriate level of mining determined as it related to the water table and its environmental impact to the area and surrounding homes?

    Greenfield does not have this restriction. The environmental risk to the water table posed by mining is minimal since there are no petroleum or hazardous substances within the Phase 2 area that could impact the water table, other than the fuel inside the equipment. Processing, crushing, and a possible Asphalt Plant will all be located in the Phase 1 area.

30. This site includes an "unconfined surficial aquifer" which means the aquifer is fluid and not static. If the aquifer is damaged, the damage will migrate. What additional precautions are needed based on this characteristic? Will there be additional test well installations in the area surrounding the property with regular 3rd party monitoring?

    There is very little risk to the water table, processing activities will remain in the Phase 1 area. Nearby wells are completed to depths of 107 to 190 feet and are in a separate confined aquifer. Any spills will be reported to the state and city. No additional test wells are contemplated for this project.

31. With the potential for exposed water table, and a nearby asphalt plant, and the unconfined surficial aquifer – how will nearby residents' well be protected to ensure lasting viable drinking water?

    The Asphalt plant, if constructed, would be permitted under the Nonmetalic Mining Stormwater General Permit from the MPCA, with stipulations that protect water resources. Nearby wells are completed in a separate confined aquifer. Spills will be reported and cleaned up according to MPCA regulations and/or guidance. A condition of approval will be included in the CUP to ensure proper permits are obtained and complied with over the duration of the mining and processing activities.

32. Sand and Gravel washing is proposed which will require "make-up water", with processing requiring approx 25 Million gallons/year. The EAW states this water would be from a groundwater pond. How will the Operations ensure that impact is "relatively limited" as the EAW states and that it will "Not likely impact" any of the nearest water supply? What would an impact look like? How will that be monitored? What can be done to remedy impacts to personal wells if they do occur? Will any 3rd party testing of surrounding wells occur proactively? What are the potential environmental impacts to surrounding wells? Does the inclusion of wells from the new construction homes in Hanover previously omitted change anything in terms of the EAW and the operational approach?"

    That is typo. The permit allows for up to 25 million gallons per year, but use is estimated at 720,000/yr. (400gpm, 12-hour days, 5-day weeks, 30-week season).

The DNR reviews the requested amount to ensure groundwater appropriations are not excessive and has issued a Water Appropriations Permit for the existing pit. Approval of the permit is approval of the DNR for this pumping. ""Impact"" in this section is discussing quantity of groundwater. DNR does not require any monitoring of groundwater levels. The missed wells are immaterial to the minimal groundwater pumped by the mine of the overall large deeper aquifer. EPA states avg. annual water use of a family of 4 is 144,000 gallons. This mine is the equivalent of 5 new homes on well water, which is not significant. The Pollution Prevention Plan, required by SSG's Nonmetallic Mining Stormwater General Permit addresses inspection, maintenance, and pollution prevention to ensure groundwater is not polluted. On going compliance with local and state permits will be a condition of approval of the CUP.

33. Is this process of using ground water the same as “mine dewatering”? Will mine dewatering occur? If yes, other local mines forbid mine dewatering, what environmental impacts would lead other locations to not allowing dewatering?"

    No, it is not the same as mine dewatering. Mine dewatering occurs when a mine extends below the water table and groundwater infiltrates into the working mine due to gravity and then that water is removed from the mine. Excavation for this mining operation will not extend below the groundwater table. Obtaining water for wash water and dust control from the groundwater pond is permitted under the Water Appropriations Permit.

34. Asphalt Plant - this has been out of operation for approx 20 years – why was this not included in the EAW discussion when it is part of the CUP application?

    The asphalt plant is included in several areas of the discussion in the EAW. The existing Site has previously been used for a temporary asphalt plant. Maintaining a potential site for locating an asphalt plant where stormwater and air controls are in-place is more efficient for permitting purposes and has fewer regional impacts should the need arise for a local asphalt construction project than identifying and permitting some other location for a plant in the area. The applicant plans to continue intermittent operation of a temporary asphalt plant within the Phase 1 area only if the need arises. The asphalt plant is not proposed to operate within the Phase 2 area.

35. How many asphalt “projects” would be anticipated per season?

    This would depend on the local construction market and local demand for asphalt production and cannot be determined at this time.

36. Why were the truck counts specific to the Asphalt plant not included in the Average Daily Traffic Counts?

    If the temporary asphalt plant were operating, gravel resources would be utilized for producing asphalt and no other aggregate export would be occurring at the time. So the net effect on traffic is minimal (see prior question response.) There are no immediate plans to operate the temporary asphalt plant, so it would not make sense to include those numbers in the main estimate. The EAW will be updated to clarify this case.

37. Asphalt production involves bringing in petroleum products onsite. Where will petroleum be stored? Will storage be required above ground?

    Asphalt production would follow regulations of the Nonmetallic Mining Stormwater General Permit. Petroleum products for asphalt production would be stored in the Phase 1 area in above-ground storage tanks with secondary containment. Secondary containment would be lined with

plastic and sized to contain any potential spills from the storage tanks. This will be regulated through additional permitting and will be addressed as a condition in the CUP.

38. The EAW states no Hazardous materials will be stored on site, is petroleum not considered hazardous?

    Under normal uses as fuels, lubricants, or paving materials, petroleum products are not considered hazardous materials:

    https://www.epa.gov/brownfields/key-terms#:~:text=The%20term%20does%20not%20include,)%20%C2%A79003(h)

39. Petroleum products are a known carcinogen that when used in the manufacturing of asphalt can impact air (air born particulate matter and smell) and water quality. How much Petroleum/oil is brought in to for each asphalt "project"?

    Any asphalt plant would operate under air and stormwater permits through the MPCA such that air and stormwater resources will be protected to regulated standards.

40. The CUP indicates peak production of the plant to generate 100,000 tons of asphalt annually. Is an estimate of 5-7% of the mix appropriate to be allocated to petroleum, equating to 5000 – 7000 tons of petroleum products being imported to this site?

    5-7% is accurate, yearly production will vary based on demand for asphalt products. Project sizes may vary, therefore asphalt production averages given are estimates. Any stored asphalt will follow applicable regulations.

41. How will the operations mitigate and appropriately address a petroleum spill?

    A petroleum spill will follow the MPCA incident response procedure of: STOP, CALL, CONTAIN, REPORT, RECOVER. Typically, a fuel service would be used to fuel on-site equipment. The fuel service truck carries a spill containment kit. If on-site fuel storage is needed, the fuel storage tank would be an above ground double walled tank and meet all MPCA petroleum storage tank requirements. Tanks with capacities over 500 gallons located within 500 feet of a Class 2 surface water or over 1,100-gallon capacity located over 500 feet from a Class 2 surface water require registration with MPCA and must meet other MPCA requirements such as labelling, secondary containment, substance transfer safeguards, and routine inspections. If tanks with capacities that require registration are brought to the Site, the operator would register the tanks and comply with the applicable MPCA regulations. This will be regulated through additional permitting and will be addressed as a condition in the CUP

42. How will the operations ensure well water contamination has not occurred from the production of Asphalt?

    If an asphalt operation commences, contamination will be prevented by daily inspections of equipment and operations to ensure compliance with Best Management Practices as outlined by the Minnesota Pollution Control Agency, Minnesota DNR, and in accordance with our Stormwater Pollution Prevention Plan. These permits mandate regular inspection, maintenance, and reporting of spills.

43. Will proactive testing of surrounding well water for human consumption be paid for by the operators and conducted by a 3rd party on behalf of residents?

    No. If spills occur the city or regulatory agency may stipulate certain remedial actions or

corrective actions which may include groundwater monitoring onsite.

44. With aggregate mining also on site what will be done to avoid contaminating water supplies due to rain water runoff or a catastrophic event impacting the storage or raw petroleum products?

    Stormwater permits are in place to prevent this exact scenario. If an event impacts the storage of petroleum products, the secondary containment will contain any leaks created from the catastrophic event. Rainwater runoff will not be allowed to come into contact with any hazardous materials

45. How will the operation mitigate smells etc? Section 17c does not address the Asphalt plant in its discussions so it is unclear.

    Operation of the mine and a potential temporary asphalt plant will follow MPCA regulations according to an Air Permit such that odors will be within permitted standards.

46. What measures can be used to mitigate risk from air born asphalt particulate matter to surrounding residents?

    An MCPA-issued Permit will be maintained. Surrounding tree cover, screening berms, and locating processing activities at the base of the pit will help reduce dust, noise, odor and visual impacts.

47. Greenhouse gasses (GHG) 18a – are the impacts of the asphalt plant included in these calculations? I cannot tell from the chart or commentary.

    Yes. The use of 350,000 gallons of propane is included solely for the purpose of estimating greenhouse gasses from operating the temporary asphalt plant and is based on similar asphalt producing operations, since the plant has not been operated at the site. The EAW will be updated to clarify this. Actual greenhouse gas emissions will likely be less than estimated because there is no current plan to operate the temporary asphalt plant.

48. Is production of concrete permitted or being requested?

    The production of concrete is not part of the permit and is not being requested, however concrete recycling is being requested as part of the permit.

49. Will Asphalt recycling, and thus the presence of asphalt millings, be occurring onsite? Are there defined storage sites?

    Asphalt Rubble and Concrete storage area will only be allowed in Phase 1. The recycle area is indicated on the Existing Conditions site plan, in the Conditional Use Permit Application Drawings.

50. How will rainwater runoff be mitigated to prevent groundwater impacts?

    Runoff will be directed to infiltration ponds. Ponds are regularly inspected and maintained according the Nonmetallic Mining Stormwater General Permit to inspect for contamination (e.g. oil sheen, odor, color...etc.). Notification and cleanup of any pollution will follow permit regulations. Rainwater will not come into contact with any hazardous materials.

51. Section 21 states: “No future projects are known at this time although it can be expected that eventually additional land that is mapped as an Identified Resource on the MN DNR’s Classification of Aggregate Resources… and is available for mining will be mined. By the time this occurs, previously mined areas will possibly have been reclaimed”. What does this statement mean?

SSG has no other plans for additional expansion of the mine, but it cannot be said other neighboring property owners would not want to mine potential gravel resources below their property. Nonmetallic mining is a permitted conditional use in the Rural Residential zoning around the site.

52. Section 21 states: “No future projects are known at this time although it can be expected that eventually additional land that is mapped as an Identified Resource on the MN DNR’s Classification of Aggregate Resources… and is available for mining will be mined. By the time this occurs, previously mined areas will possibly have been reclaimed”. What does this statement mean? How should surrounding residents interpret this in light of the 2040 comp plan stating that “there is one remaining active aggregate production facility in operations… Remaining areas of significant aggregate resources have been mined, restored, and developed to rural residential land use”. Does this mean there will be a continuous industrial site which conducts mining/processing and asphalt production in a rural residential area?"

    Locations where there is or is likely to be aggregate resources are mapped by the MN DNR and there is always some potential that properties with gravel resources could be sought to be developed for mining purposes: https://arcgis.dnr.state.mn.us/portal/apps/webappviewer/index.html?id=0a2bee58eb4f43eeb23b293494469ae8

    There is not another site in Greenfield that appears to be a clear candidate for gravel mining apart from this site; however, the mapping that is available is not a guarantee of where gravel deposits are and where any future land owner may choose to pursue gravel mining in areas where it is an allowed use.

53. Section 21 also states: Because the existing mine is currently active and in full operation, cumulative potential effects are represented in terms of their aggregate effects which is existing conditions for most of the environmental impacts in question. How can this statement be considered accurate when there is no active mining or processing other than concrete crushing occurring? How can this statement be considered accurate when there is no existing asphalt plant on site?

    Potential impacts from operation of proposed Phase 2 would be similar to when Phase 1 was actively being mined. The EAW will be edited to state as such.

Michelle Cooper

1. We express substantial concerns regarding the proximity of Phase 2 to the Crow River and its potential deleterious impacts on the river and its ecosystems. We regularly observe a variety of wildlife that may be displaced due to the deforestation of over 400 trees and the associated mining activities. Notable examples include: An established Bald Eagle nest on the north end of the proposed site with several fledglings, Blue Herons that frequently fish the river, numerous Owls, Bats, multiple species of Turtles, Otters, Deer, Coyote, Rabbits, Turkeys, various fish and other wild animals that live in the area. Potential alterations to groundwater flow paths which could modify the riverbed and result in riverbank erosion. Risks posed by the mining process, specifically the holding ponds, which could alter ground water temperatures impacting adjacent river wildlife, aquatic vegetation, and micro-organisms which are vital to the overall health of the river ecosystem. Concerns regarding the impact to the aquafer levels, adjacent septic systems, and water wells.

    Comment noted. The US Fish and Wildlife Service's Information for Planning and Consultation

(IPAC) tool was utilized for identifying threatened and endangered species. The City may explore the need to conduct a raptor survey as a condition of approval for the CUP. If an eagle's nest is observed activities will be modified to ensure the nest is not disturbed and the USFWS will be consulted.

The Holding Pond is permitted with the DNR Water Appropriations Permit and MPCA Nonmetallic Mining General Permit. These permits have been discussed in other responses and must be complied with to minimize impacts to groundwater.

2. We request a current and accurate assessment of the environmental impacts, inclusive of the new homes directly across the river. The jurisdictional boundaries of our residency are not relevant as we are significantly impacted by the Phase 2 proposal.

   The EAW will be edited to include the homes missed in the original EAW submittal.

3. We are concerned about the additional noise levels due to the closer proximity of the expanded operations which includes 70+ trucks daily, concrete crushing equipment, bituminous equipment, and the mining process itself. Currently we experience noise that would be considered nuisance level starting as early as 7am and continuing as late as 8pm. The current noise levels are already problematic, and the proposed operations will likely exacerbate the issue.

   Comment noted. The hours of operation for mining and processing operations are from 7:00 a.m. to 7:00 p.m., Monday through Friday and 7:00 a.m. to 4:00 p.m. on Saturdays. If there are noise impacts outside of these hours please inform the City.

4. We request comprehensive sound studies (during peak operational hours) that consider the residences across the river in Hanover and Rockford Township. Additionally, please explain, in full detail, the incremental mitigation strategies that will be implemented to reduce noise pollution.

   Noise reduction practices are discussed in the CUP application. Additional noise testing is done for compliance with MSHA standards. The city may explore additional noise monitoring as conditions of approval with the CUP.

5. The current volume of airborne dust particulate generated from Phase 1 operations is such that we must regularly clean our screens, windows, siding, outdoor furniture, vehicles, and other items. The addition of bituminous operations is concerning due to the likelihood of noxious odors further affecting air quality. For those of us that suffer from Asthma, this is particularly concerning and poses both short term and long-term health risks.

   Comment noted. Please see responses to previous questions for further info.

6. We request thorough and rigorous air quality studies (including peak operational hours) that consider the residences on the west side of the river in Wright County. Furthermore, please detail the incremental mitigation strategies that will be employed to reduce the volume of airborne particulates.

   Air quality testing is required for the MPCA Non-metallic Mining General Air Permit. The processing equipment is subject to operating standards which include fugitive dust control measures. This permit requires monitoring, reporting, and inspections related to dust levels.

7. We believe that Phase 2 of the Crow Pit does not benefit the residents in the area, but instead, will become a nuisance and burden to those of us that call this area home.

Comment noted. Please see responses to previous questions for further info.

This concludes the listing of comments received and draft responses to those comments.