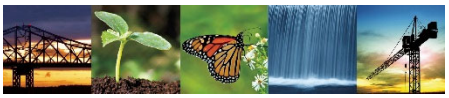

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September 30, 2024
File No 20.0158848.00

Dane County Planning & Development
Assistant Zoning Administrator: Mr. Dan Everson
Room 116, City-County Building
Madson, Wisconsin 53703

Town of Verona
Town Board Chairman: Mr. Mark Geller
Supervisors: Ms. Deb Paul, Mr. Tom Mathies, Mr. Dave Lonsdorf, Mr. Mike Duerst
Plan Commission: Ms. Haley Saalsaa Miller, Ms. Sarah Slack, and Ms. Lori Lukens
7669 County Highway PD
Verona, Wisconsin 53593

Re: Response to County Concerns Regarding CUP #2629 - Mineral Extraction
JMM LLC; Proposed Wildcat Pit
Southwest Investments LLC Property, Valley Road
Town of Verona, Dane County, Wisconsin

Dear Chairman, Supervisors, Plan Commission and County Assistant Zoning Administrator,

On behalf of JMM LLC ("JMM"/"Applicant"), GZA GeoEnvironmental, Inc. (GZA) prepared formal responses to the Dane County Planning & Development ("County") September 19, 2024, Concerns Regarding CUP #2629 – Mineral Extraction (**Attachment 1)** with the expectation that we are bringing this CUP process to closure. The County's comments are repeated below, followed by responses developed by the Applicant.

"The Dane County Zoning and Land Regulation Committee held a public hearing regarding CUP #2629 on August 27, 2024. At the meeting, the public raised concerns about the proposed non-metallic mineral extraction activity. I have summarized the concerns below.

In order to obtain a conditional use permit, the proposal must meet eight (8) standards as listed under the zoning ordinances. Many times, conditions must be placed on the conditional use permit to address concerns in meeting these eight (8) standards. The standards are listed at the end of this letter.

Please review the topics below and provide your response regarding the concerns. Staff has provided an objective view of each topic. The response to the items will be helpful for the Zoning and Land Regulation Committee in rendering a decision on the conditional use permit.

Planning comments and concerns:

You shared with the ZLR committee information pertaining to state and county regulations that allow for registration of marketable non-metallic mineral deposits within a county. Property owners within Dane County do have the ability to submit and record with the Register of Deeds office detailed information for planning purposes to recognize a potential site that has a marketable deposit. However, let it be known that no one has ever registered this subject site as per the requirements found in NR 135 and the Dane County Ordinance section 74.53."

No comment.

"The proposed use appears to conflict with the overall land use policies of the City of Verona Southwest Neighborhood Plan. Proposed land uses are to demonstrate compliance with the Town

of Verona comprehensive plan and the intergovernmental agreement with the City of Verona. It appears that a 159 acre quarry will disrupt the planned development within and around the proposed site."

The City of Verona ("City") sent a letter in opposition to the Dane County Zoning and Land Regulations Committee, dated August 16, 2024 (the "City's Letter"). This section will address, in part, the City's Letter and the County's concerns stemming from the City's Letter.

The City focuses on a supposed conflict of proposed CUP #2629 with the Intergovernmental Agreement between the Town of Verona and City, which was adopted June 20, 2024 (the "Boundary Agreement"), and the City's Comprehensive and Southwest Neighborhood Plans. In short, the Boundary Agreement does not apply to conditional use permits (CUP) in any planning area, and the City's own comprehensive plan references a quarry being an acceptable land use for the subject parcels.

On page 49 of 53 of the City of Verona 2009 Comprehensive Plan, under Opportunities for the "southwest," the following is written:

> *Also—this area is characterized by naturally-occurring non-metallic mineral deposits which present an opportunity for mining and quarry operations. While the City considers quarries to be a 'rural' land-use appropriate for un-incorporated areas,* ***the City will consider allowing quarry operations within this Southwest area (after annexation) as industrial land-uses subject to city review and approvals****.* (emphasis added).

On page 14 of the City's Southwest Neighborhood Plan, adopted in July 2009, the following is written:

> ***The proposed land-uses—as described in detail in 'Part Two' of this plan below—are completely consistent with the comprehensive plan's recommendations for both the 'Southwest' and the 'South' 'Future Urban Areas'*** *as provided in Chapter 8—Land Use of the City's Comprehensive Plan.*

Further, on page 32, the following language can be found:

> *As noted above—all aspects of this 'Southwest Neighborhood Plan'* ***are consistent with*** *the City's soon-to-be adopted Comprehensive Plan. The Plan Commission will review any development proposals within the 'Southwest Neighborhood' and make recommendations to the Common Council. The Plan Commission is an appointed body of volunteer Verona citizens, while the Common Council members are elected representatives for the citizens of Verona. If for any reason a development proposal for the Southwest Neighborhood is not consistent with this Neighborhood Plan or with the Comprehensive Plan—the City will either deny the proposal or will reevaluate our comprehensive plan to see if factors have changed such that the comprehensive plan should be modified.*

The City's own Comprehensive Plan and Southwest Neighborhood Plan both recognize the presence of naturally occurring mineral deposits in this specific area and, indeed, support the development of a quarry as a land use.

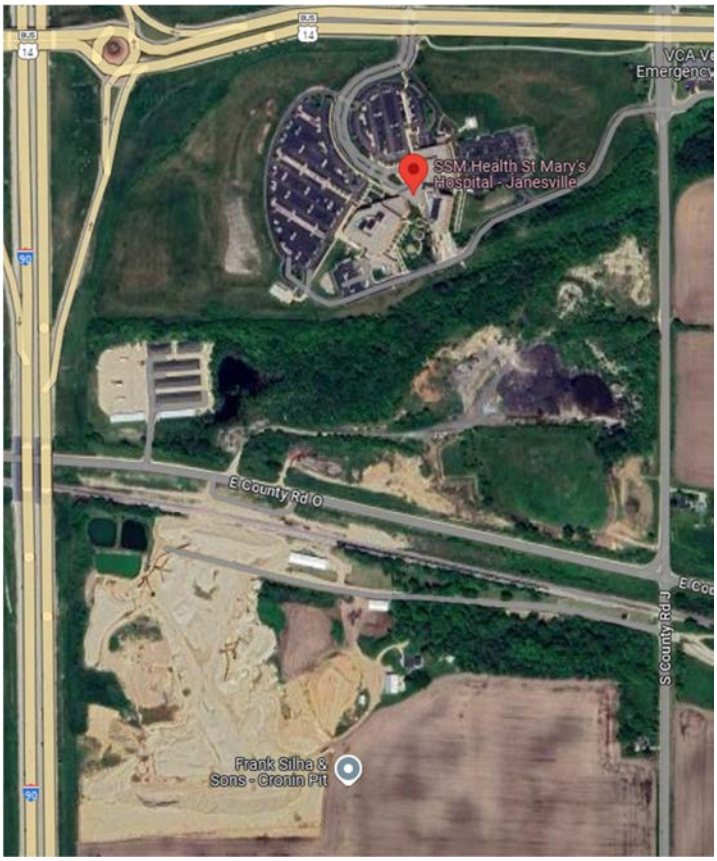
It is also reasonable to consider that some of the City's own Comprehensive Plan has failed in its implementation. The period covered by the Plan is 2010 to 2030. "Planned" development of the Applicant's property falls within Phase 3, which is not contemplated to occur until after Phase 2. Neither Phase 1 nor Phase 2 have been implemented 14 years into the 20-year plan.

Even if the City's Comprehensive Plan and Southwest Neighborhood Plan did not support non-metallic mineral extraction at the subject parcels, which are currently located in the Town and not the City, Wis. Stat. §66.1001(2m)(b) provides that a CUP that may be issued by a political subdivision does not need to be consistent with the comprehensive plan. Further, Dane County Zoning Ordinance Chapter 10 does not require consistency with or reference City comprehensive plans, only Town and County comprehensive plans (14 references). It is

undisputed that the real property subject to CUP #2629 is located within Dane County's AT-35 Zoning District (the "Zoning District"), and that non-metallic mineral extraction operations (i.e., a quarry a/k/a sand and gravel pit) are a conditional use in said Zoning District.

JMM also disagrees with the City's assertion that a failure by the Town to deny the quarry application without regard to its merits would violate the Boundary Agreement for a number of reasons, including the following:

1. Section 8.02 of the Boundary Agreement. The City's reference to section 8.02 of the Boundary Agreement is inapt. That section says the Town "shall not approve, and shall oppose any application before Dane County for, any *lot splits, land divisions, or rezones* in land located within area A…" The pending application is for a CUP, not a lot split, land division, or rezone. Nor would the proposed sand and gravel pit conflict with "future urban growth."
2. Section 8.03 of the Boundary Agreement. The language in this section is essentially identical to that in section 8.02, except it relates to development in Area B. For the same reasons set forth above with respect to the inapplicability of section 8.02, section 8.03 does not apply.
3. SSM Health Proposal. The City also asserts that the presence of a quarry would "significantly reduce SSM Health Care's ability to proceed with its project and recapture its investment in water and sewer improvements." The ability of a private business to recoup an investment in public infrastructure is not a factor mentioned anywhere in the Boundary Agreement. Nor is there any indication that the SSM Health proposal could not or would not move forward if the CUP for the sand and gravel pit was approved. To the contrary, the SSM Health St. Mary's Hospital in Janesville is located directly adjacent to a mineral extraction site (see aerial photograph, below).



This is nothing but speculation on behalf of the City that the current CUP request would have any impact on the SSM project's ability to move forward.

4. Section 4.05 of the Boundary Agreement. The City's letter quotes from this section provide that the Town agreed to limit urban development in Area A, to allow the Area to be annexed to the City, and developed to City standards. It also provides that the Town will restrict rural development in Area B if that development would make it difficult to extend City services. The Town does not believe that any reasonable definition of "urban development" or "rural development" would encompass a gravel pit. The definitions in the Boundary Agreement certainly do not. Rather, section 6(a) of the agreement defines "develop or development" as "division of land, or construction of more than one principal structure on a parcel of land, or rezoning of a parcel to a more intense zoning classification." As noted above, the current CUP application does not involve a land division or rezone. CUPs are not development as defined by the Boundary Agreement. The CUP proposal does not include the construction of any principal structures. Therefore, Section 4.05 has no bearing on the application as submitted.

The CUP Application addressed the Town Comprehensive Plan in detail as required. The site use is in compliance with the Town's 2018 Comprehensive Plan policies related to mineral extraction (Chapter 9, page 75). Also, Map 9.6 of the Town's 2018 Comprehensive Plan, regarding future land use, provides that the subject property should be zoned (current and future) as transitional agricultural, which it currently is, and non-metallic mineral extraction operations are a conditional use in said Zoning District.

In summary, the Boundary Agreement does not dictate the outcome of the application for CUP #2629 and could not legally do so as rejection of a CUP based solely on an agreement not to consider it would violate both the letter and spirit of §59.69(5e)(b) of the Wisconsin Statutes. Even before enactment of that statute, it was clear that both the applicant for a CUP and those opposed to it have the legal right to a fair determination that is not based on prejudgment. See, *Keen v. Dane Cnty. Bd. of Supervisors,* 2004 WI App 26, 269 Wis. 2d 488, 676 N.W.2d 154. Further, the City's own planning documents support a non-metallic mineral extraction operation as a land use in the area, as presented in the CUP application and, even if the CUP application conflicted with the planning documents, Wis. Stat. §66.1001(2m)(b) provides that a CUP that may be issued by a political subdivision does not need to be consistent with the comprehensive plan. Finally, the subject property is zoned to allow non-metallic mineral extraction as a conditional use, which is consistent with the Town's 2018 Comprehensive Plan.

"Evidence needs to be submitted that the proposed operation and the final reclaimed land use will comply with the standards of the City of Verona Resource Assessment and Development Analysis for the Upper Sugar River and Badger Mill Creek Southwest of Verona, WI."

The 2008 City of Verona Resource Assessment and Development Analysis for the Upper Sugar River and Badger Mill Creek Southwest of Verona, WI ("2008 Study") is a study that includes recommendations "intended to be 'resource-based' and not 'policy-based', to provide the basis for an improved approach to protection of water quality and water resources as part of regional water quality management planning." The 2008 Study is not a binding document that the Applicant "must comply" with and includes recommendations for residential and non-residential development. The County staff report specific call-out to non-residential development appears to be unwarranted.

"The materials provided in the CUP application are insufficient to determine consistency with some of the standards of the adopted town/county comprehensive plan. Prior to approval of any CUP application, the applicant should provide additional information to determine whether the following plan standards are met.

Positive Cost-Benefit Analysis -The establishment, maintenance, or operation of the site shall balance the risk with the positive business of employment, tax revenue, and need of natural resources for all citizens. ***Please provide an appropriate cost-benefit analysis."***

The Town of Verona Comprehensive Plan references Positive Cost-Benefit Analysis, as described above, but the Dane County Comprehensive Plan does not use the term. However, the Town Comprehensive Plan does not offer guidance on how to address this matter. The cost-benefit analysis can be broken down into a comparison of two terms:

1. "Risk"; and
2. "Positive business of employment, tax revenue, and need of natural resources for all citizens."

Risk

One should not assume that the proposed use of the property for a nonmetallic mining operation presents a risk. There are certainly concerns, but an evaluation of the concerns identifies protections in place to address them at the property to alleviate risk as they are at the estimated 2,500 other nonmetallic mines in Wisconsin.

Mining is the most highly regulated industrial business in the United States. Mining is regulated at the federal, State and local level on environmental, health, and safety performance. Environmental performance is tightly controlled through permit-required regulations, self-implementing regulations, and industry-standard Best Management Practices (BMPs). Permits are required as a result of various federal and state programs, including:

- Federal Clean Water Act, administered by the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit, and other related laws and programs;
- Federal Clean Air Act; administered by the WDNR Air Permit;
- Wisconsin Department of Agriculture Trade and Consumer Protection Vehicle Scale Operator License;
- WDNR High-Capacity Well Permit; and
- Wisconsin Mining Reclamation Permit, administered by the local unit of government that issues the CUP to mine.

In addition to the permits, mines must adhere to several self-implementing regulations such as storm water, spill prevention, Toxic Substances Control Act (TSCA), waste management, etc. Additionally, the Applicant, like all companies that operate in Wisconsin, are obligated to comply with the Wisconsin Spill Law.

Through implementation and oversight of federal and state environmental programs, United States Environmental Protection Agency (USEPA), WDNR, and operators address the environmental concerns. Wisconsin law does not have a requirement for nonmetallic mines to prepare an Environmental Impact Study (EIS) in addition to the established federal and state environmental regulations that address air, surface water, groundwater, and reclamation. In addition, local units of government, such as municipalities, townships, and counties do not have an established regulatory framework, review process, or budget to initiate such a complex process for permit applications.

Positive Business of Employment, Tax Revenue, and Need of Natural Resources For All Citizens

Business of employment. The proposed operation will have no risk or negative impact on the ability of any employer in the Town of Verona to hire employees. It is important to recognize that having a sustained long-term source of quality construction aggregate enables the Town to build and maintain the foundation and infrastructure of all other businesses that operate in the area and maintain employment.

Tax revenue. The proposed use will increase tax revenue of the property and have no conceivable negative impact on the tax revenue from other properties in the Town. To illustrate, one only needs to look at the real estate tax revenue increase because of the opening of the new Herfel Pit south of the subject property. Said pit is located on Parcel Nos. 062/0608-284-8500-9 (approx. 40 acres) and

062/0608-284-9000-2 (approx. 40 acres). According to Dane County tax records, and for the purposes of assessment classification, Parcel No. 062/0608-284-9000-2 had approximately 38 acres assessed as agricultural, and 2 acres assessed as undeveloped for the period from 1999-2022 ("Pre-Mining Period"). Parcel No. 062/0608-284-9000-2 generated real estate tax dollars totaling approximately $6,100 during the 24-year Pre-Mining Period. On the other hand, after the opening of the pit on Parcel No. 062/0608-284-9000-2, Dane County's 2023 valuation breakout shows that approximately 29 acres were assessed as commercial, with 9 acres assessed as agricultural and 2 acres assessed as undeveloped. Based on the new assessment (post opening of the mine), the 2023 real estate tax bill for Parcel No. 062/0608-284-9000-2 amounted to $4,182.96 (i.e., the 2023 real estate taxes equaled 68% of the total, aggregate real estate tax revenue generated from the same parcel over the course of the prior 24-year period). Attached for reference is a copy of an Access Dane Parcel Report for Parcel No. 062/0608-284-9000-2 (**Attachment 2**).

The need of natural resources for all citizens. The citizens' need of natural resources is not at risk by converting an agricultural field into a lake, but is enhanced. The proposed Wildcat Pit will also not have a negative impact on other nearby natural resources such as streams and wetlands. The quality construction aggregate available on the property is a natural resource that will benefit the citizens of the Town in ways that are not often recognized and/or often ignored.

The citizens of the Town have large need for this natural resource that is driven by continued development of residential, commercial, and other properties on agricultural land – similarly forcing more road improvements and commercial development to expand.

- Asphalt is comprised of 95% aggregate = sand, gravel, crushed stone, and 5% bitumen (asphalt).
- 100% of the base course beneath asphalt layers is aggregate.
- Aggregate comprises 100% of the roads, driveways, and parking lots in the Town and County – with or without asphalt or concrete.
- Every new home will require, on average, 200 to 500 tons of aggregate.
- The majority of housing units in the Town are single-family homes.
    - 100% have aggregate or paved driveways (>100 miles), garages, and basements.
    - 100% will need additional aggregate at some point in the future.
    - All future homes will require about 200 to 500 tons of aggregate.
- There is substantial need for aggregate in the community and a local mine will provide benefit to the Town and County.
- There are about 25 to 30 miles of roads in Verona Township.
    - 100% will require additional aggregate and pavement in the future.
        - ~5 miles of US and State Highways;
        - ~8 to 9 miles of County roads; and
        - ~25 to 30 miles of Township roads.
    - Each mile of road will require >6,000 cubic yards of aggregate, more for US and State highways.
- It is increasingly challenging for paving contractors to obtain the locally sourced high quality aggregate for use in asphalt and concrete.

- Aggregate properties vary amongst deposits and the ideal aggregate for use in asphalt is not available in every aggregate mine.
- The ideal aggregate properties summarized below are obtained from crushed gravel and will be achieved from the aggregate produced at the proposed Wildcat Pit.
  - **Toughness.** Toughness or hardness is the ability of the aggregate to resist crushing or disintegration during mixing, placing, and compacting; or under traffic loading.
  - **Soundness.** Although similar to toughness, soundness is the aggregate's ability to resist deterioration caused by natural elements such as the weather.
  - **Particle shape.** The shapes of aggregate particles influence the asphalt mixture's overall strength and workability, as well as the density achieved during compaction. When compacted, irregular particles such as crushed stone and gravel tend to lock together and resist displacement.
  - **Surface texture.** Workability and pavement strength are influenced by surface texture. A rough, sandpapery texture results in a higher strength than a smooth texture. Although smooth-faced aggregates are easy to coat with an asphalt film, they are generally not as good as rough surfaces; it is harder for the asphalt to grip the smooth surface.
  - **Absorption.** The porosity of an aggregate permits the aggregate to absorb asphalt and form a bond between the particle and the asphalt. A degree of porosity is desired, but aggregates that are highly absorbent are generally not used.

"Protection of Wetlands and Water Quality - Operation of the site shall meet and satisfy all State and County criteria regarding wetlands and water quality impacts of the proposed extraction operation. Although the aerial photo-derived Wisconsin Wetland Inventory shows only small wetlands on the site, there are approximately 23 acres of hydric soils in the northwestern portion of the site. Such soils are indicative of wetland conditions. Field-verified wetland delineations will be necessary to determine the actual extent of wetlands on the site and any impact from the proposed use. ***Please provide a wetland delineation report showing the extent of the wetlands on the property."***

The Town requirement, as stated above, is clear that "Operation of the site shall meet and satisfy all State and County criteria regarding wetlands and water quality impacts of the proposed extraction operation."

The WDNR website [Wetland Permitting Process Wisconsin DNR] top of page is clear:

> *"All wetlands in Wisconsin are protected by state statute and regulated by the DNR. Landowners and developers are required to avoid wetlands with their projects whenever possible. For projects that cannot avoid wetlands and involve the placement of material or excavation in wetlands, authorizations through exemptions or permits may be required."*

Although wetland delineations may be necessary, the timing of that work is not justified before issuance of a CUP. The Applicant will delineate wetland areas prior to excavation in potential wetlands.

"Transportation analysis - Applicant will be required to provide for a traffic impact study on roads. If there is potential damage to town roads, particularly from the weight of the trucks, the applicant will be required to cover the repair of the road. The application includes a very general discussion of road impacts resulting from mineral extraction operations, but does not include any site-specific analysis of the roads and transportation network at this location. ***The applicant should provide a site-specific traffic and road impact analysis that meets the current technical standards of the Wisconsin Department of Transportation, the Dane County Highway and Transportation Department and both the City of Verona and Town of Verona Engineers. The report should identify any existing roadways or intersections inadequate to safely handle projected traffic and include estimated costs for improvements."***

The Town Public Works Director's provided review comments from July 19, 2024, are included in **Attachment 3**. The area of concern is less than 2,000 feet of Town road west of the intersection with State Highway 69. There is no city or county road involved in the proposed CUP application, so City and County involvement with Valley Road and Highway 69 are unclear.

"Dane County Land and Water Resources Department (LWRD) comments and concerns:

There is insufficient data and information submitted that demonstrates that the aquifer and groundwater is being protected. LWRD has pointed out that the Dane County groundwater model developed by the Wisconsin Geological and Natural History Survey (WGNHS) displays the reaches of the Sugar River and Badger Mill Creek in this area as relatively high areas of groundwater inputs. Without data, it is difficult to impossible to determine if the nonmetallic mining operation would or would not intercept some degree of groundwater that currently moves from the N/NE towards the Sugar River and Badger Mill Creek."

The August 20, 2024, Dane County LWRD letter to County Zoning and Land Regulations Committee is provided in **Attachment 4**. Concerns associated with surface water, groundwater quality, and groundwater quantity were addressed in detail in GZA's May 29, 2024, Evaluation of Public Concerns, submitted to the County and provided in **Attachment 5**. The LWRD opinion that "There is insufficient data and information submitted that demonstrates that the aquifer and groundwater is being protected" is not supported by any factual information to indicate that the aquifer and groundwater are not protected and that the proposed mining presents a risk. For there to be a demonstration that the aquifer and groundwater are being protected, one must first explain the threats. Whatever the LWRD imagines as threats cannot be assumed to be public knowledge. The LWRD has provided no evidence to support the opinion that the aquifer and groundwater are at risk. Such statements are not scientifically based and are merely the personal opinion of the author. If there were evidence to support the statement it would be provided.

It is a unique challenge for the Applicant to provide evidence that the groundwater will not be impacted. The strongest evidence is the presence of an estimated 2,500 mines (WDNR estimate) and more importantly 15,000 lakes in Wisconsin that do not cause groundwater contamination. The 2007 Dane County Comprehensive Plan reported more than 160 active and at least 70 former mineral extraction sites in Dane County, as shown in the Mineral Resources Map included as **Attachment 6**. If these 230 plus nonmetallic mines in Dane County caused groundwater contamination it would be public knowledge – which is clearly not the case.

The mining operation will "intercept some degree of groundwater that currently moves from the N/NE towards the Sugar River and Badger Mill Creek." The Sugar River watershed is 217 square miles. The proposed Wildcat Pit lake may be about 70 acres, or 0.1 square miles. One-half the proposed Wildcat Pit lake area is in the Sugar River watershed and one-half is in the Badger Mill Creek watershed. One-half of the 70 acres, or 35 acres, represents 0.025% of the Sugar River watershed; insignificant by any measure.

If, in theory, the Wildcat Pit intercepted and held all of the water that would normally discharge into the Sugar River, there would be no change in river water flow. The fact is, the Wildcat Pit lake will not intercept and hold the water flowing toward the Sugar River. In general, the groundwater will flow through the pit lake, become surface water for a period of time and then flow through as groundwater. The Sugar River will remain the discharge point for groundwater flowing through the Wildcat Pit property.

The Upper Badger Mill Creek watershed is much smaller than the Sugar River watershed, about 3,200 acres within about 5 miles upstream of its confluence with the Sugar River, but it has several other unique attributes that are notably ignored in the LWRD comments; Badger Mill Creek is a sewer. The 2021 City of Madison upper Badger Mill Creek Watershed Study reported that Badger Mill Creek is "Largely a constructed urban stormwater conveyance system" and "includes 38.7 miles of storm sewers and culverts." The proposed Wildcat Pit lake, if developed to 70 acres, represents a small percentage of the Badger Mill Creek watershed.

Both Sugar River and Badger Mill Creek are ¼- to ½-mile from the excavation areas of the proposed Wildcat Pit. There are no direct surface water hydraulic connections between the Wildcat Pit property and Sugar River or Badger Mill Creek.

A much greater risk to the rivers in the area are the livestock that are free to enter the river affecting the stream banks and bottoms and add waste directly into the water or as stormwater runoff. Risk to groundwater at the proposed mine will be addressed by implementation of a groundwater management plan included as **Attachment 7**.

Horse pasture along Sugar River north of Valley Road

Image from Google Earth Street View August 2011

Images from WisconsinRiverTrips.com - Water Trail Review Blog, Sugar River-Highway A Trip July 2, 2022. Photos taken about 3 miles downstream from County Highway A.
Upper image labeled "Cows in the water"
Bottom image labeled "A lot of Cow Erosion"

"Trout Unlimited Southern Wisconsin has pointed out concerns with this subject matter too. The Sugar River and the Badger Mill Creek are both considered perennial streams and cold water communities. ***Please provide information on what efforts will be made to protect thermal temperatures, the groundwater, and what efforts will be made to avoid disruption of the flow rates to the Sugar River."***

The letter from Southern Wisconsin Chapter of Trout Unlimited (SWTU) addressed to Dane County Planning & Zoning is provided in **Attachment 8.** The letter does not include the requests summarized by the County above. What the SWTU letter actually requests is:

> "*that the Zoning Committee direct County staff to conduct a thorough analysis of the environmental impacts of the proposed quarry near the Sugar River and Badger Mill Creek in the Town of Verona with a particular focus on the effects the quarry might have on groundwater. We ask that the County engage groundwater experts to assist in this study if such expertise is needed and/or if the groundwater model needs to be updated for that area."*

Prior to this request, the Applicant retained groundwater experts with more than 40 years of experience evaluating hydrogeologic conditions in geologic settings similar the proposed Wildcat Pit. Concerns associated with surface water, groundwater quality and groundwater quantity were evaluated and addressed in detail in the GZA May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**).

The City of Madison dumps 38.7 miles of storm sewer water into Badger Mill Creek, resulting in perhaps millions of gallons per day and the proposed Wildcat Pit property will dump no water into Badger Mill Creek – or the Sugar River. It would appear that the County's concerns are not recognizing the risk Badger Mill Creek has on itself.

With both streams ¼- to ½-mile from the proposed Wildcat Pit lake, there are no efforts needed to protect either stream from changes in groundwater temperatures that may contribute the predicted immaterial volume of groundwater to the surface water at that distance. Groundwater flow velocities in the aquifer between the proposed Wildcat Pit lake and the streams will require years to travel on the order of 10s to perhaps 100 feet per year, preventing any risk of thermal impact on either stream. Information on potential impacts to the groundwater and disruption of the flow rates to the Sugar River were addressed above. The greater risks to the streams are the sewers and livestock as noted above. A groundwater management plan included as **Attachment 7**.

"Local neighbors' concerns:

There is existing residential development directly to the east along Pine Row Road. The proposed operation plan shows that the staging area for the stockpiling and loading of trucks will be approximately 100 feet away from the property. The neighbors expressed concerns that the dust created by the processing and stockpiling area will travel onto their property and cause a nuisance. ***Provide information on what efforts will be made to reduce the amount of dust that will be created from the site with the possibility of relocating the processing area to the west side of the property."***

Concerns associated with dust were evaluated and addressed in detail in GZA's May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**). Dust control was also addressed on pages 7, 9, and 12 of the Application. In summary:

- The proposed mining operation will implement a Fugitive Dust Control Plan and operate in accordance with applicable state air permitting regulations. A Fugitive Dust Control Plan is included as **Attachment 9**.
- The proposed mining operation will be a wet operation.
- The WDNR regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415, Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.

The proposed processing areas were selected to utilize the area of the property where the bedrock was high and the thickness of sand and gravel much less than the remaining property. Moving the processing area west will make much of the underlying sand and gravel inaccessible, wasting a valuable natural resource. Relocating the processing area several hundred feet west will not reduce the amount of dust, the planned dust control measures will reduce the amount of fugitive dust.

"The neighbors expressed concerns regarding the possible negative impact on the existing wells. The operation involves dredging of sand and gravel from the groundwater. There will be a fair amount of turbidity created in the aquifer due to the dredging. ***Provide information on what efforts will be made to ensure that the neighboring wells will not be affected by the dredging operation."***

The nearest water supply wells are located 500 to 1,000 feet hydraulically upgradient or sidegradient from the mine. That means the groundwater flow in the area of the nearby water supply wells is to the south/southeast, away from the proposed mine. If mining alters the groundwater flow direction near the water supply wells, the flow may then be southwest toward the pit lake, not from the pit lake toward the wells. Even if the pit lake contained water with higher turbidity levels, the proposed dredge mining operation will not result in higher turbidity in water supply wells.

"Local Access and Truck Traffic Concerns:

Given that Valley Road is a town road, the Town of Verona has jurisdiction and maintains the quality of the roadway. Valley Road has limitations being used as a haul route for dump trucks. Currently, the roadway width is 20 to 21 feet and may not meet the minimum road width standards noted for Wisc. Stats. 82 for the anticipated traffic load. ***Please provide a traffic impact study showing what necessary improvements will be needed to Valley Road to handle proposed traffic loading in addition to the existing traffic load."***

The Town Public Works Director's provided review comments on July 19, 2024, pertaining to Valley Road, are included in **Attachment 3**. There is no county road involved in the proposed CUP application, so county involvement with Valley Road and Highway 69 is unclear.

"The proposal states that the primary access route will be east along Valley Road to US Highway 69. The application lacks information to show that the existing intersection design is capable of supporting the proposed traffic loading. ***Please provide a traffic impact study showing what necessary improvements will be needed to the Hwy 69 intersection with concurrence from Wisconsin DOT."***

The Town Public Works Director's provided review comments on July 19, 2024, pertaining to Valley Road, are included in **Attachment 3**. Wisconsin Department of Transportation (WisDOT) will be consulted again to confirm the Town's recommendations are appropriate for WisDOT. There is no county road involved in the proposed CUP application so county involvement with Valley Road and Highway 69 is unclear.

"Sensitive Environmental, Erosion Control, and Stormwater Concerns:

There is a culvert that runs under Valley Road that directs the natural drainage from the northerly land to the site. Once on site, the drainage continues south. The proposal does not address how the natural drainage from the north will be handled on the site. It appears that a driveway will be placed at the culvert location. ***Please provide a stormwater analysis on how the existing stormwater flow from neighboring properties will flow across the site."***

The culvert beneath Valley Road draining water onto the property will be managed by the Applicant. Stormwater flow from neighboring properties will be managed within the mine property and either be diverted around disturbed areas or stormwater that encounters disturbed areas will be diverted into the mine. A conceptual stormwater management plan is included as **Attachment 10**.

"The plan proposes to have a 25-acre processing area on the northeast corner of the property. The area is shown to have a 6% to 8% grade flowing to the southwest. It appears that the surface storm water from the processing area will run

directly into the proposed subsurface excavation area (exposed groundwater) without any buffer. ***Provide information on how the contaminates, debris, sediments, from the vehicles and equipment operating in the processing area will be removed or filtered prior to entering the open water****."*

As stated above, stormwater that encounters disturbed areas, such as the processing area, will be diverted into the mine. The "mine" will be an excavation into the ground that will remove and process gravel, sand, silt, and clay-sized particles of what is generally referred to as a "sand and gravel deposit" that is the target of the mining operation and the desired construction aggregate to be produced. Portions of the sand and gravel deposit will remain in the pit below the water, on the margins of the pit above the water on the shore, in the processing area in raw sand and gravel stockpiles, in the processing area in product stockpiles after washing and sizing, and in the processing areas between processes and stockpiles.

The county characterization of gravel, sand, silt, and clay-sized particles – the "sand and gravel deposit" that will be mined - as "contaminates, debris, sediments, from the vehicles and equipment operating in the processing area" is unusual. The mine will remove these materials from the water by the millions of tons. There will no efforts to prevent ounces or pounds from finding their way back into the water.

It is important to recognize the "exposed groundwater" is no different from the "exposed groundwater" in the 15,000 lakes in Wisconsin. The only difference will be one of semantics. During mining, the open water in Wildcat Pit will be evolving from farm field to lake for a very short period of time during its development, whereas, most of the other 15,000 lakes in Wisconsin have been around for about 10,000 years. Manmade lakes are no different and pose no greater to groundwater than most natural lakes. In most instances, manmade lakes may pose less of a threat due to the private nature of many of them. A groundwater management plan included as **Attachment 7**.

"The plan identifies that there is a mapped floodplain area with the presence of wetlands adjacent to the west. The application lacks information to show how this area will be protected from filling or land disturbance. ***Please provide a wetland delineation report showing the extent of the wetlands on the property and explain what efforts will be made to protect the wetlands and not disturb the natural drainage for the area."***

The Town requirement is that "Operation of the site shall meet and satisfy all State and County criteria regarding wetlands and water quality impacts of the proposed extraction operation."

The WDNR website [Wetland Permitting Process Wisconsin DNR] top of page is clear:

> "*All wetlands in Wisconsin are protected by state statute and regulated by the DNR. Landowners and developers are required to avoid wetlands with their projects whenever possible. For projects that cannot avoid wetlands and involve the placement of material or excavation in wetlands, authorizations through exemptions or permits may be required."*

Although wetland delineations may be necessary, the timing of that work is not justified before issuance of a CUP. The Applicant will delineate wetland areas prior to excavation in potential wetlands.

Approximately 2 acres within 200 feet of the west property boundary is mapped within the 100 year floodplain of the Sugar River. The mapped floodplain area will be confirmed by survey and berms will not be constructed within the floodplain.

"As mentioned above, the proposal needs to meet all eight (8) standards in order to obtain a conditional use permit. As you are responding to these concerns, please make sure you take in to account the standards. Please feel free to comment on other items that may have been stated during the public hearing that are not listed in the above concerns."

"There appears to be numerous concerns raised regarding the proposed mineral extraction site that are not adequately addressed by the current materials that have been submitted. Based on the current submittal the proposal fails to meet the eight (8) standards as noted below:

1. *The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare.*

    a. *The application lacks evidence showing adequate measures for traffic safety, protection of sensitive environmental features, dust effects on neighbors, and dealing with effect of dredging on groundwater."*

Evidence Showing Adequate Measures for Traffic Safety

The Town Public Works Director's provided review comments on July 19, 2024, are included in **Attachment 3**. WisDOT will be consulted again to confirm the Town's recommendations are appropriate for WisDOT.

In summary, the Applicant has communicated with the appropriate agencies with jurisdiction over the Town and state highway that will be utilized near the proposed mine. It is unclear what more the Applicant should be expected to do with regards to traffic safety beyond compliance with the requirements of the Town and State.

Evidence Showing Adequate Measures for Protection of Sensitive Environmental Features

Surface water, groundwater, and wetlands were addressed in the Application and in detail in GZA's May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**). It is unclear what additional sensitive environmental features the County is referring.

In summary, the Applicant has demonstrated that adequate measures for protection the sensitive environmental features at and near the property were considered.

Evidence Showing Adequate Measures for Dust Effects on Neighbors

Concerns associated with dust were addressed above and evaluated and addressed in detail in GZA's May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**). Dust control was also addressed on pages 7, 9, and 12 of the Application. In summary:

- The proposed mining operation will implement a Fugitive Dust Control Plan and operate in accordance with applicable state air permitting regulations. A Fugitive Dust Control Plan is included as **Attachment 9.**
- The proposed mining operation will be a wet operation.
- The WDNR regulates sources of dust as PM emissions under Chapter NR 415, Wis. Adm. Code. The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.

In summary, It is unclear what additional evidence the Applicant can provide to show adequate measures for dust management will be implemented consistent with the industry standard of care.

Evidence Showing Adequate Measures for Dealing With Effect of Dredging on Groundwater

The effect of dredging on the groundwater was addressed in the Application on pages 6 and 11 and in detail in GZA's May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**). GZA also explained the effects of dredging on the groundwater table during the August 27, 2024 public hearing.

In summary, as has been explained above, in the Application and at the County's public hearing, dredging will have no lasting effect on the groundwater. A groundwater management plan included as **Attachment 7**.

2. *"The uses, values and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use*

    a. *The application lacks evidence how measures are in place to deal with nuisance dust effecting neighbors."*

    Concerns associated with dust were addressed above and evaluated and addressed in detail in GZA's May 29, 2024 Evaluation of Public Concerns submitted to the County (**Attachment 5**). Dust control was also addressed on pages 7, 9, and 12 of the Application. In summary:

    - The proposed mining operation will implement a Fugitive Dust Control Plan and operate in accordance with applicable state air permitting regulations. A Fugitive Dust Control Plan is included as **Attachment 9.**
    - The proposed mining operation will be a wet operation.
    - The WDNR regulates sources of dust as PM emissions under Chapter NR 415, Wis. Adm. Code. The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.

    In summary, It is unclear what additional evidence the Applicant can provide to show adequate measures for dust management will be implemented consistent with the industry standard of care.

3. *"The establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.*

    a. *The application notes that the property will be used for park purposes after extraction is terminated. The proposed future use is in conflict with the land use policies found within the City Comprehensive Plan."*

    Dane County Zoning Ordinance Chapter 10 does not require consistency with or reference City comprehensive plans, only town and county comprehensive plans (14 references).

    Wis. Stat. §66.1001(2m)(b) clarifies that "A conditional use permit that may be issued by a political subdivision does not need to be consistent with the political subdivision's comprehensive plan."

    It is not a state mandate or county policy that consistency with the City's comprehensive plan be a standard for evaluating applications for conditional uses. This is a local option. As noted below, the comprehensive plan is intended to be "a guide to the physical, social, and economic development of a local governmental unit," and not a regulation.

    Wisconsin Statute 66.1001 Comprehensive planning defines "Comprehensive plan, means a guide to the physical, social, and economic development of a local governmental unit." Wisconsin Department of Administration website clarifies that "Comprehensive plans are not meant to serve as land use regulations in themselves; instead, they provide a rational basis for local land use decisions with a twenty-year vision for future planning and community decisions." The 2009 City of Verona Southwest Neighborhood Plan is one of several guides for the City and is not binding on the Applicant's property proposed for Wildcat Pit.

    It is reasonable to consider the plan to have failed in its implementation. The time period covered by the Plan is 2010 to 2030. "Planned" development of the Applicant's property falls within Phase 3, which is not contemplated to occur until after Phase 2. Neither Phase 1 nor Phase 2 have been implemented 14 years into the 20-year plan.

    The Applicant's property and Pine Row residential properties are planned to be nonresidential, with "Planned land-uses include a mix of office, business-park, research, educational, light-

industrial, corporate campus, service, and retail businesses." Apparently of no concern to the county, the three Pine Row residences will apparently have their land use stripped away as the "The City plans to utilize this area for creating jobs and employment opportunities for Verona residents with office, corporate headquarter, light-manufacturing, and similar business developments;" "Land-uses further west—farther away from Highway 69", which includes the Applicant's property, "are planned to be a mix of office, warehouse, distribution, educational and light-industrial land-uses" and includes approximately 1.5 miles of local roads."

Although the City Plans are not applicable, it should be recognized that the proposed use for nonmetallic mining is consistent with the plan and consistent with current county zoning. The City, town and county cannot grow without the much needed construction aggregate that the Wildcat Pit will provide. The City of Verona Comprehensive Plan acknowledges "Excellent non-metallic mineral resources such as gravel" (Chapter 5, Section 1), and should also recognize that those excellent resources need to be extracted to maintain and build the foundation of the City.

4. *"Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made.*

   a. *The application lacks evidence showing how existing drainage patterns will not be interrupted or how the natural flow to the Sugar River will not be disrupted."*

      As described in the Application, a Stormwater Management Plan will be prepared in general accordance with the WPDES General Permit for Mineral (Nonmetallic) Mining and/or Processing. A conceptual stormwater management plan is included as **Attachment 10**. The proposed mining operation will comply with County stormwater and erosion control standards under Chapter 14 during mine development. The mining operation will also comply with the stormwater requirements of the WPDES.

      Surace water flowing onto and on the property will be managed by the Applicant. Stormwater flow will be managed within the mine property and either be diverted around disturbed areas or stormwater that encounters disturbed areas will be diverted into the mine.

   b. *"The application lacks evidence showing necessary roadway improvements to be made to Valley Road and the US Highway 69 intersection."*

      Will reference and attach the Public Works Director Comments WCB 7/19/24 included in the Town Plan Commission Packet.

5. *"Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.*

   a. *The application lacks evidence that the access point is acceptable to the Town of Verona and is designed to handle proposed truck traffic."*

      The Town Public Works Director's provided review comments on July 19, 2024, are included in **Attachment 3**. WisDOT will be consulted again to confirm the Town's recommendations are appropriate for WisDOT.

6. *"The conditional use shall conform to all applicable regulations of the district in which it is located.*

   a. *The application lacks evidence showing that the proposal meets wetland, shoreland, floodplain, and stormwater requirements."*

      The Applicant is aware of the wetland, shoreland, floodplain, and stormwater requirements. The property is not subject to shoreland zoning. As noted above, wetlands are regulated by the WDNR

and any obligations required will be followed. The floodplain are easily addressed by avoidance or if necessary permitting. Stormwater management was addressed above.

7. *"That the conditional use is consistent with the adopted town and county comprehensive plans.*

    a. *The proposed use after the extraction phase appears to conflict with the intended uses for the property as noted in the City Comprehensive Plan."*

        Standard 7 applies to the adopted **town and county comprehensive plans**.

        The County comment pertains to the City Comprehensive Plan, which is a recurring theme in the comment letter.

        As stated above, the rationale for the concern for the City's plans are unclear and should not be a factor in issuance of a CUP for the property.

8. *"If the conditional use is located in a Farmland Preservation Zoning district, the town board and zoning committee must also make the findings described in s. 10.220(1).*

    - *Not applicable."*

        No Comment.

"Please provide the additional information as noted above and provide and explanation on how the additional materials or changes to the proposal will meet the eight (8) standards of obtaining a conditional use permit."

The additional information requested is provided above.

Please feel free to contact Mr. Krumenacher at (262) 424-2046 or via email at mark.krumenacher@gza.com with questions.

Sincerely,

GZA GeoEnvironmental, Inc.

Mark J. Krumenacher, P.G.
Senior Principal

J:\158800to158899\158848 JMM LLC Verona S&G Property\CUP Application\Public Hearing Docs\
Sept 2024 Response to County Comments\FINAL 20.0158848.00 Response to County Summary of Concerns_Verona WI 9-30-24.docx

cc: Mike Marquette, JMM LLC
William F. Springer, Turke & Steil LLP

Attachments

ATTACHMENT 1

September 19, 2024, Concerns Regarding CUP #2629-Mineral Extraction,
Dane County Planning & Development

Room 116, City-County Building, Madison, Wisconsin 53703
Fax (608) 267-1540

DANE COUNTY
PLANNING & DEVELOPMENT

Planning
(608)266-4251, Rm. 116

Records & Support
(608)266-4251, Rm. 116

Zoning
(608)266-4266, Rm. 116

TO: **JMM LLC; Michael Marquette**

FROM: **Dan Everson, Assistant Zoning Adm.**

DATE: **September 19, 2024**

RE: **Concerns regarding CUP #2629 - Mineral extraction**

Dear Mr. Marquette,

The Dane County Zoning and Land Regulation Committee held a public hearing regarding CUP #2629 on August 27, 2024. At the meeting, the public raised concerns about the proposed non-metallic mineral extraction activity. I have summarized the concerns below.

In order to obtain a conditional use permit, the proposal must meet eight (8) standards as listed under the zoning ordinances. Many times, conditions must be placed on the conditional use permit to address concerns in meeting these eight (8) standards. The standards are listed at the end of this letter.

Please review the topics below and provide your response regarding the concerns. Staff has provided an objective view of each topic. The response to the items will be helpful for the Zoning and Land Regulation Committee in rendering a decision on the conditional use permit.

Planning comments and concerns:

You shared with the ZLR committee information pertaining to state and county regulations that allow for registration of marketable non-metallic mineral deposits within a county. Property owners within Dane County do have the ability to submit and record with the Register of Deeds office detailed information for planning purposes to recognize a potential site that has a marketable deposit. However, let it be known that no one has ever registered this subject site as per the requirements found in NR 135 and the Dane County Ordinance section 74.53.

The proposed use appears to conflict with the overall land use policies of the City of Verona Southwest Neighborhood Plan. Proposed land uses are to demonstrate compliance with the Town of Verona comprehensive plan and the intergovernmental agreement with the City of Verona. It appears that a 159 acre quarry will disrupt the planned development within and around the proposed site.

Evidence needs to be submitted that the proposed operation and the final reclaimed land use will comply with the standards of the City of Verona *Resource Assessment and Development Analysis for the Upper Sugar River and Badger Mill Creek Southwest of Verona, WI*.

The materials provided in the CUP application are insufficient to determine consistency with some of the standards of the adopted town/county comprehensive plan. Prior to approval of any CUP application, the applicant should provide additional information to determine whether the following plan standards are met.

- Positive Cost-Benefit Analysis -The establishment, maintenance, or operation of the site shall balance the risk with the positive business of employment, tax revenue, and need of natural resources for all citizens. **Please provide an appropriate cost-benefit analysis.**

- Protection of Wetlands and Water Quality - Operation of the site shall meet and satisfy all State and County criteria regarding wetlands and water quality impacts of the proposed extraction operation. Although the aerial photo-derived Wisconsin Wetland Inventory shows only small wetlands on the site, there are approximately 23 acres of hydric soils in the northwestern portion of the site. Such soils are indicative of wetland conditions. Field-verified wetland delineations will be necessary to determine the actual extent of wetlands on the site and any impact from the proposed use. **Please provide a wetland delineation report showing the extent of the wetlands on the property.**

- Transportation analysis - Applicant will be required to provide for a traffic impact study on roads. If there is potential damage to town roads, particularly from the weight of the trucks, the applicant will be required to cover the repair of the road. The application includes a very general discussion of road impacts resulting from mineral extraction operations, but does not include any site-specific analysis of the roads and transportation network at this location. **The applicant should provide a site-specific traffic and road impact analysis that meets the current technical standards of the Wisconsin Department of Transportation, the Dane County Highway and Transportation Department and both the City of Verona and Town of Verona Engineers. The report should identify any existing roadways or intersections inadequate to safely handle projected traffic and include estimated costs for improvements.**

Dane County Land and Water Resources Department (LWRD) comments and concerns:

There is insufficient data and information submitted that demonstrates that the aquifer and groundwater is being protected. LWRD has pointed out that the Dane County groundwater model developed by the Wisconsin Geological and Natural History Survey (WGNHS) displays the reaches of the Sugar River and Badger Mill Creek in this area as relatively high areas of groundwater inputs. Without data, it is difficult to impossible to determine if the nonmetallic mining operation would or would not intercept some degree of groundwater that currently moves from the N/NE towards the Sugar River and Badger Mill Creek.

Trout Unlimited Southern Wisconsin has pointed out concerns with this subject matter too. The Sugar River and the Badger Mill Creek are both considered perennial streams and cold water communities. **Please provide information on what efforts will be made to protect thermal temperatures, the groundwater, and what efforts will be made to avoid disruption of the flow rates to the Sugar River.**

Local neighbors' concerns:

There is existing residential development directly to the east along Pine Row Road. The proposed operation plan shows that the staging area for the stockpiling and loading of trucks will be approximately 100 feet away from the property. The neighbors expressed concerns that the dust created by the processing and stockpiling area will travel onto their property and cause a nuisance. **Provide information on what efforts will be made to reduce the amount of dust that will be created from the site with the possibility of relocating the processing area to the west side of the property.**

The neighbors expressed concerns regarding the possible negative impact on the existing wells. The operation involves dredging of sand and gravel from the groundwater. There will be a fair amount of turbidity created in the aquifer due to the dredging. **Provide information on what efforts will be made to ensure that the neighboring wells will not be affected by the dredging operation.**

Local Access and Truck Traffic Concerns:

Given that Valley Road is a town road, the Town of Verona has jurisdiction and maintains the quality of the roadway. Valley Road has limitations being used as a haul route for dump trucks. Currently, the roadway width is 20 to 21 feet and may not meet the minimum road width standards noted for Wisc. Stats. 82 for the anticipated traffic load. **Please provide a traffic impact study showing what necessary improvements will be needed to Valley Road to handle proposed traffic loading in addition to the existing traffic load.**

The proposal states that the primary access route will be east along Valley Road to US Highway 69. The application lacks information to show that the existing intersection design is capable of supporting the proposed traffic loading. **Please provide a traffic impact study showing what necessary improvements will be needed to the Hwy 69 intersection with concurrence from Wisconsin DOT.**

Sensitive Environmental, Erosion Control, and Stormwater Concerns:

There is a culvert that runs under Valley Road that directs the natural drainage from the northerly land to the site. Once on site, the drainage continues south. The proposal does not address how the natural drainage from the north will be handled on the site. It appears that a driveway will be placed at the culvert location. **Please provide a stormwater analysis on how the existing stormwater flow from neighboring properties will flow across the site.**

The plan proposes to have a 25-acre processing area on the northeast corner of the property. The area is shown to have a 6% to 8% grade flowing to the southwest. It appears that the surface storm water from the processing area will run directly into the proposed subsurface excavation area (exposed groundwater) without any buffer. **Provide information on how the contaminates, debris, sediments, from the vehicles and equipment operating in the processing area will be removed or filtered prior to entering the open water**.

The plan identifies that there is a mapped floodplain area with the presence of wetlands adjacent to the west. The application lacks information to show how this area will be protected from filling or land disturbance. **Please provide a wetland delineation report showing the extent of the wetlands on the property and explain what efforts will be made to protect the wetlands and not disturb the natural drainage for the area.**

As mentioned above, the proposal needs to meet all eight (8) standards in order to obtain a conditional use permit. As you are responding to these concerns, please make sure you take in to account the standards. Please feel free to comment on other items that may have been stated during the public hearing that are not listed in the above concerns.

There appears to be numerous concerns raised regarding the proposed mineral extraction site that are not adequately addressed by the current materials that have been submitted. Based on the current submittal the proposal fails to meet the eight (8) standards as noted below:

1. *The establishment, maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare.*
    a. The application lacks evidence showing adequate measures for traffic safety, protection of sensitive environmental features, dust effects on neighbors, and dealing with effect of dredging on groundwater.

2. *The uses, values and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use*
    a. The application lacks evidence how measures are in place to deal with nuisance dust effecting neighbors.
3. *The establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.*
    a. The application notes that the property will be used for park purposes after extraction is terminated. The proposed future use is in conflict with the land use policies found within the City Comprehensive Plan.
4. *Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made.*
    a. The application lacks evidence showing how existing drainage patterns will not be interrupted or how the natural flow to the Sugar River will not be disrupted.
    b. The application lacks evidence showing necessary roadway improvements to be made to Valley Road and the US Highway 69 intersection.
5. *Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.*
    a. The application lacks evidence that the access point is acceptable to the Town of Verona and is designed to handle proposed truck traffic.
6. *The conditional use shall conform to all applicable regulations of the district in which it is located.*
    a. The application lacks evidence showing that the proposal meets wetland, shoreland, floodplain, and stormwater requirements.
7. *That the conditional use is consistent with the adopted town and county comprehensive plans.*
    a. The proposed use after the extraction phase appears to conflict with the intended uses for the property as noted in the City Comprehensive Plan.
8. *If the conditional use is located in a Farmland Preservation Zoning district, the town board and zoning committee must also make the findings described in s. 10.220(1).*
    - *Not applicable.*

Please provide the additional information as noted above and provide and explanation on how the additional materials or changes to the proposal will meet the eight (8) standards of obtaining a conditional use permit.

Respectfully,

Daniel Everson
Assistant Zoning Administrator
608.267.1541
Everson.Daniel@danecounty.gov

CC: Town of Verona; City of Verona

ATTACHMENT 2

Access Dane Parcel Report for Parcel 062/0608-284-9000-2

Parcel Number - 062/0608-284-9000-2

Current

Parcel Summary

Municipality Name	TOWN OF VERONA
Parcel Description	SEC 28-6-8 SW1/4SE1/4 EXC TO DOT IN DOC ...
Owner Name	HERFEL LIVING TR
Primary Address	**No parcel address available.**
Billing Address	1955 LOCUST DR VERONA WI 53593

Municipal Contacts

Municipal Contact Information
For questions or to schedule an appointment contact:

Assessor ASSOCIATED APPRAISAL CONSULTANTS INC
Phone 920-749-1995
Email INFO@APRAZ.COM

Clerk TERESA WITHEE
Phone 608-807-4466
Email TWITHEE@TOWN.VERONA.WI.US

Treasurer TERESA WITHEE (T.VERONA)
Phone 608-845-7187
Email TWITHEE@TOWN.VERONA.WI.US

Zoning Administrat... Dane County Zoning
Phone 608-266-4266
Email Zoning@countyofdane.com

Current Year Assessment

Assessment Year	2024
Valuation Classification	G2 G4 G5
Assessment Acres	40.000
Land Value	$232,200.00
Improved Value	$0.00
Total Value	$232,200.00

Open Book/Board Of Review Dates

Open Book
Open Book dates have passed for the year
~~Starts: 04/10/2024 - 11:00 AM~~
~~Ends: 04/10/2024 - 01:00 PM~~

Board Of Review
Board of Review dates have passed for the year
~~Starts: 04/23/2024 - 06:00 PM~~
~~Ends: 04/23/2024 - 08:00 PM~~

Zoning Information

Zoning
AT-35

Zoning District Fact Sheets

Proximity Notice
Some portion of this parcel either contains or is in close proximity to sensitive environmental features (i.e. shorelands, floodplains, or wetlands), and Dane County regulations may apply.
Please contact the Dane County Zoning Division at (608) 266-4266 for additional permitting information.

Parcel Map

Current Year Taxes (2023)

Assessed Land Value	Assessed Improvement Value	Total Assessed Value
$232,100.00	$0.00	$232,100.00
Taxes:		$4,182.96
Lottery Credit(-):		$0.00
First Dollar Credit(-):		$0.00
Specials(+):		$0.00
Amount:		$4,182.96

Districts

Type	State Code	Description
REGULAR SCHOOL	5901	VERONA SCHOOL DIST
TECHNICAL COLLEGE	0400	MADISON TECH COLLEGE
OTHER DISTRICT	31VF	VERONA FIRE DISTRICT

Recorded Documents

Doc. Type	Date Recorded	Doc. Number	Volume	Page
WD	04/30/2010	4651913		
PRD	02/20/1995		28544	1
WD	04/12/1994		5564	90

ATTACHMENT 3

July 19, 2024, Town of Public Works Director's Comments

Wildcat Pit Sand and Gravel Operation

Public Works Director Comments WCB 7/19/24

1. The existing Valley Road pavement consists of a chip seal surface (2019) over a cold mix asphalt base (1996) of undefined thickness. The road in the vicinity of the proposed pit operation is currently rated as a PASER rating 4 representing a fair condition. Inspection of the existing pavement reveal a substantial area of base deformation and block cracking indicating a soft and shifting subbase. The road is seasonally weight restricted to a 10,000 lb. single axle loading. This restriction is typically in effect from March 1st to April 30th each year. The statutory weight limit outside of this time is 20,000 lbs per axle.

   Based upon the 2 to 25 million tons of material deposits and an estimated life for 35 years, the road will experience over 2,200,000 truck trips, half full and half empty. If the pit is to be in operation for an estimated 200 days per year, this would average over 325 trucks per day. Current traffic counts on Valley Road indicate an average daily traffic of 35 vehicles per day, therefore the anticipated traffic will increase daily traffic tenfold.

   To provide safe and reliable transportation, it will be necessary to reconstruct Valley Road for approximately 1575 feet west of State Route 69. This length will put the reconstruction approximately 100 feet west of the proposed entrance. It is anticipated that all pit traffic will enter and exit the site via State Route 69, since the town roads to the west of the site are also weight restricted. Based on similar roads constructed to withstand heavy truck traffic the cost to reconstruct Valley Road is $640,000. This reconstruction would consist of a 11-foot driving lane and a 5-foot paved shoulder.

2. The access point should include a paved driveway approach from the road to the right of way line to promote ease of pavement cleaning and sweeping. The width of the constructed driveway would typically be 30 feet wide for this type of operation. The access point needs to be signed such that no truck traffic is allowed west on Valley Road.

3. The front screening berm has a proposed height of10 feet which will be insufficient to screen much of the gravel processing/crushing operation and equipment. It is recommended that the applicant prepare a typical sight line profile from the road into and through the site to show the berm elevation in relationship to the processing equipment.

ATTACHMENT 4

August 20, 2024, Dane County LWRD Letter

LAND&WATER RESOURCES DEPARTMENT

Laura M. Hicklin, Director
Jamie Kuhn, Dane County Executive

Administration • Land Conservation • Parks • Water Resource Engineering • Watersheds & Ecosystem Services

August 20, 2024

Zoning and Land Regulations Committee
c/o Zoning Administrator Roger Lane and Assistant Zoning Administrator Daniel Everson
Sent via email to: Lane.Roger@danecounty.gov
Everson.Daniel@danecounty.gov

RE: Conditional Use Permit Application #02629 for Non-Metallic Mining Wildcat Pit / Southwest Investments LLC

Dear Chair Doolan and Members of the Zoning and Land Regulation Committee,

This letter is written in response to the Conditional Use Permit (CUP) Application dated June 6, 2024 and filed on behalf of Southwest Investments LLC (the "Applicant") by Michael J. Marquette of JMM LLC to construct and operate a nonmetallic mining operation in the Town of Verona

The Dane County Park Commission, in the name of Dane County, owns the 160 acres immediately to the south of the proposed nonmetallic mining operation ("County Property"). Dane County Parks, a division of the Land & Water Resources Department, is responsible for management of the County Property. The County Property contains approximately 1,935 feet of two bank frontage along Badger Mill Creek and 1,775 feet on the Sugar River and the confluence of the two streams sits in the southern portion of the property. Both streams are classified as Tier I Stream Projects in the 2018 - 2023 Dane County Parks & Open Space Plan.

The County Property will be restored over time, with a focus on groundwater protection, improved water quality, wetland function and improved fish and wildlife habitat.

There are many potential comments, questions and concerns regarding the proposed use that are likely being raised by many entities and individuals. Given the complexity of the issue, I will limit focus on the following at this time:

1. Neither the applicant nor the landowner have met with Dane County Parks to address any concerns. This is in violation of the criteria outlined in the Town of Verona/Dane County Comprehensive Plan as it relates to proposals for more intensive use within the Transitional Agriculture Area. Concerns that Dane County Parks staff will raise include, but are not limited to:
    a. How will the existing state corridor snowmobile trail that runs through Southwest Investments LLC property be routed with the addition of a nonmetallic mining operation?
    b. How will public safety on the County Property be protected?
    c. What visual and auditory protections will be in place for users of the County Property specifically but also for users of the Sugar River and Badger Mill Creek, which are waters of the state that benefit everyone, regardless of County ownership.

2. There is little to no data to support the impact of the project on water quality and quantity. The Dane County groundwater model developed by the Wisconsin Geological and Natural History Survey (WGNHS) displays the reaches of the Sugar River and Badger Mill Creek in this area as relatively high areas of groundwater inputs (i.e. gaining sections, outlined in red in Figure 1).

Without data, it is difficult to impossible to determine if the nonmetallic mining operation would or would not intercept some degree of groundwater that currently moves from the N/NE towards the Sugar River and Badger Mill Creek (Figure 2). With high hydraulic conductivity in the surficial sediment and shallow sand/gravel aquifer in the general vicinity (Figure 3), lateral effect from the mine could divert the direction of groundwater flow away from the Sugar River and Badger Mill Creek, during dry periods or more permanently; especially with these waterways being (at the closest point) only 1600' from the southern mining limits. This could be exacerbated by groundwater drawdowns as a function of using a hydraulic dredge to extract sand and gravel. For these reasons I strongly recommend a more robust groundwater monitoring/modeling effort should be conducted by the applicant prior to reaching a decision on the CUP application.

3. The proposed use is likely to substantially impair or diminish the value of the Sugar River, Badger Mill Creek and surrounding lands.

Thank you for your consideration of these questions and potential concerns as you review the application.

Sincerely,

Laura Hicklin

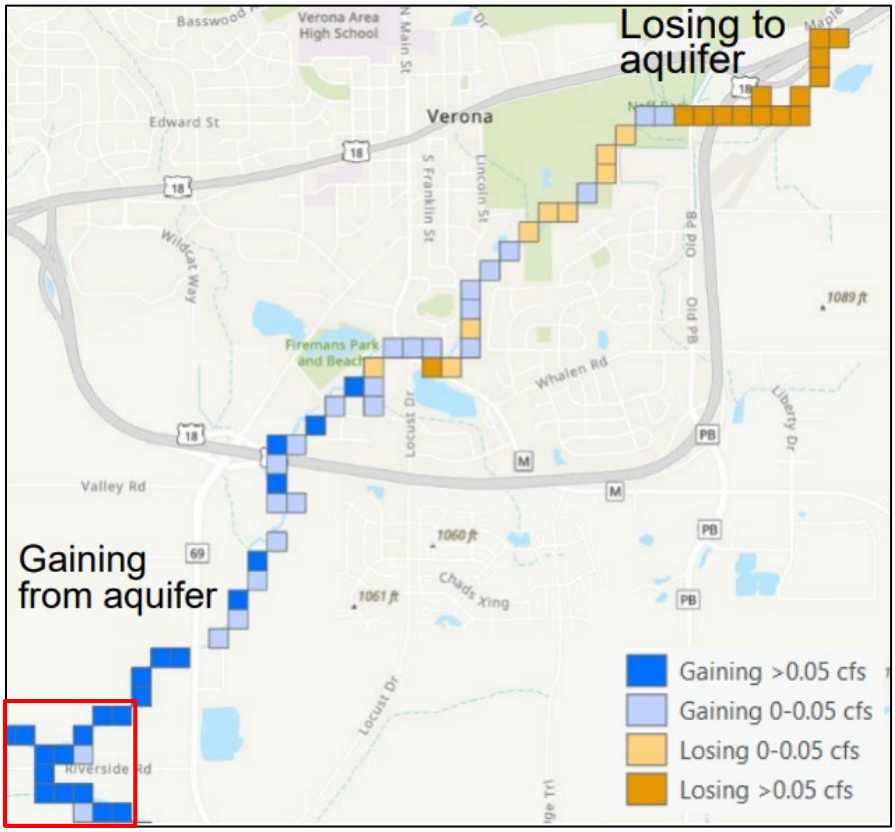


Figure 1. Badger Mill Creek-Sugar River groundwater inputs and losses. Anna Fehling, Wisconsin Geological and Natural History Survey.

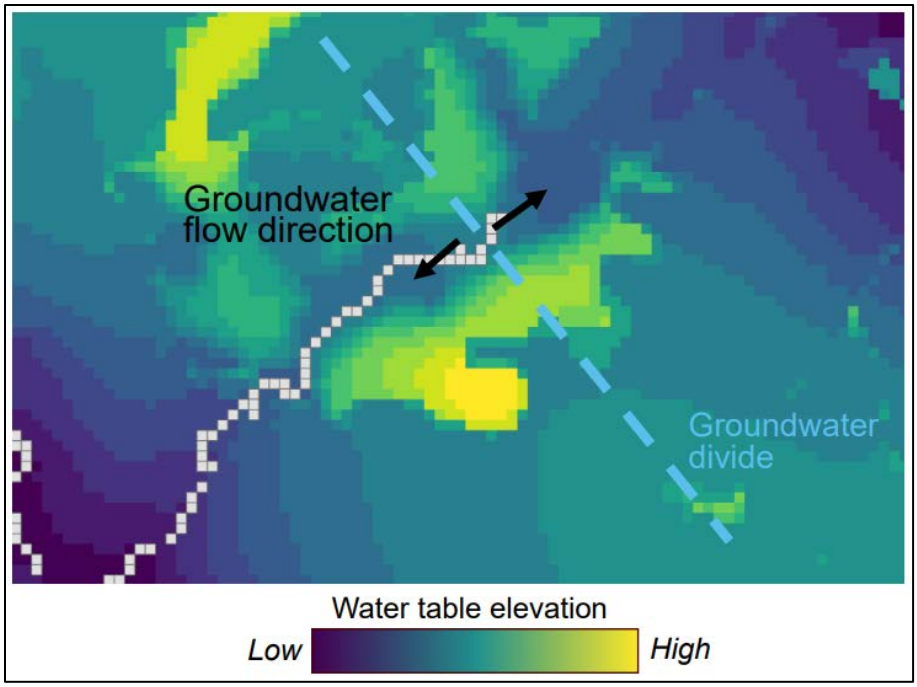


Figure 2. Badger Mill Creek-Sugar River groundwater flow direction-water table elevation. Anna Fehling, Wisconsin Geological and Natural History Survey.

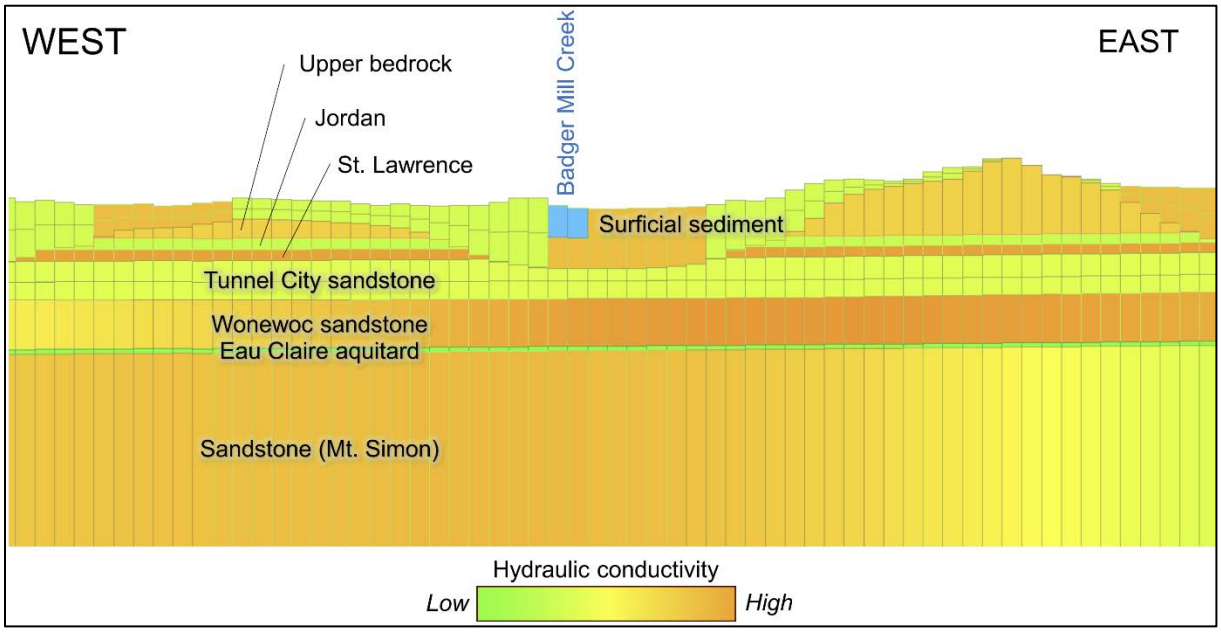


Figure 3. Badger Mill Creek-Sugar River groundwater flow direction-water table elevation. Anna Fehling, Wisconsin Geological and Natural History Survey

ATTACHMENT 5

May 29, 2024 Evaluation of Public Concerns

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May 29, 2024
File No. 20.0158848.00

Town Board Chairman: Mr. Mark Geller
Supervisors: Ms. Deb Paul, Tom Mathies, Mr. Dave Lonsdorf, Mr. Mike Duerst
Plan Commission: Ms. Haley Saalsaa Miller, Ms. Sarah Slack and Ms. Lori Lukens

Town of Verona
7669 County Highway PD
Verona, Wisconsin 53593

Re: Evaluation of Public Concerns
Proposed Wildcat Pit
Southwest Investments LLC Property, Valley Road
Town of Verona, Dane County, Wisconsin

Dear Town Board Chairman, Supervisors, and Plan Commission:

To help address the anticipated public comments regarding the JMM LLC (the "Applicant") proposed Wildcat Pit sand and gravel operation ("Site"), GZA is providing an evaluation of certain public concerns identified during the recent (2022) public hearings associated with nearby Land Use Applications for a sand and gravel operation and 54 unit residential development, both within 1 mile of the Site. The Applicant is sensitive to the concerns of the community and strives to be a good neighbor and looks forward to developing a positive lasting relationship in Verona for years to come.

BACKGROUND

For about two decades, GZA (and this author in particular) has continually focused on reviewing public concerns to nonmetallic mining in Wisconsin. The concerns raised by the public in meetings, in the press, on social media, and elsewhere are important and are taken seriously by the mining industry and GZA. The nature of concerns over mining are limited in number, and concerns have been raised in multiple forms, forums, and media. Issues surrounding concerns are often addressed privately and publicly by GZA; by mining companies at permitting hearings; by environmental and health professionals at public meetings and forums; during professional and governmental association meetings organized by pro- and anti-mining groups; Universities, Public Radio, County, and Township groups; and by the Wisconsin Department of Natural Resources (WDNR).

With such a large number of nonmetallic mines in and near local communities, the WDNR estimates 2,500 in Wisconsin alone, negative public opinion concerning mining is believed to be based on a misunderstanding of the industry due to a lack of public education on the mining process and importance of mining, and a lack of awareness of the widespread presence of mining until a new mine or expansion is proposed. Substantial public education is clearly needed in every community for every age. Opposition to mining based solely on principle makes no sense, since everything in our lives must either come from a mine if not from a farm.

GZA focuses substantial effort to identify and address the public's concerns with nonmetallic mineral mining and during the past 12 years this author presented more than 50 times to a wide variety of stakeholder groups on the importance of properly and thoroughly addressing those

concerns. In addition to the technical presentations, I have provided technical comments and support to State environmental departments, including the WDNR, Illinois Environmental Protection Agency (IEPA), Minnesota DNR (MDNR), Minnesota Environmental Quality Board (EQB), and Minnesota Pollution Control Agency (MPCA) on environmental rulemaking. These efforts also included serving on the Minnesota Silica Sand Rulemaking Advisory Panel and providing testimony before the Illinois Pollution Control Board and the Wisconsin Senate. In addition, I have:

- Provided subject matter expertise during preparation of the Health Impact of Industrial Sand Mining in Western Wisconsin, prepared by the Institute for Wisconsin's Health, Inc.;
- Developed technical white papers addressing nonmetallic mining matters;
- Planned and led training seminars addressing compliance with State environmental regulations in Wisconsin and Illinois;
- Co-authored six Policy Studies comprising 250 pages of text with 400 citations addressing Environmental, Economic, Traffic, Social, Air Quality, Regulatory Control, and Oversight and other issues associated with Industrial Sand Mining applicable to nonmetallic mining; and
- Published a book in 2021, entitled, Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society.

SUMMARY OF IDENTIFIED PUBLIC CONCERNS

This report is based on our understanding of the proposed mine plan and processing plant, previous experience, and comments at a recent public hearing concerning Land Use Applications.

CONCLUSION

GZA concludes the following based on our experience, the details contained in the Application, and the information presented above and in the attached documents:

- There is no evidence that the proposed Wildcat Pit will necessarily or certainly create a nuisance.
- There is no evidence that the proposed Wildcat Pit will create a nuisance and harm that is inevitable and undoubted.

We appreciate the opportunity to submit this supplemental information. Should you have any questions or comments, please contact the undersigned at (262) 754-2565 or via email at mark.krumenacher@gza.com.

Very truly yours,

GZA GeoEnvironmental, Inc.

Mark J. Krumenacher, P.G.
Senior Principal

J:\158800to158899\158848 JMM LLC Verona S&G Property\Addressing Concerns\Submittal\2024 05 29_Evaluation of Public Concerns_Verona FINAL.docx

Attachments: Summary Sheets and Fact Sheets

cc: Mike Marquette, JMM, LLC

Summary Sheets and Fact Sheets

Social Concerns

SOCIAL CONCERNS

Social concerns are, understandably, very important issues and in many instances, can be challenging to address as they represent seemingly less tangible issues and reflect personal preferences and lifestyle. Public concerns relating to social issues were grouped into **Quality of Life** and **Impact on Tourism** summarized in the following subsections.

Quality of Life

Concern:

- A mine will have a negative impact on quality of life in the Town.
- A mine will forever change the character of the Town.
- A mine will be disruptive and create disturbances.
- A mine will destroy the open fields, the beautiful vistas, the wooded areas - "these were the qualities that drew us there many years ago and these are the same qualities that keep us there year after year,"

Basis of Concern:

- Based on the comments, it appears that mining is considered an unacceptable and inappropriate activity in the Town and area and is an activity that has not previously occurred in the Town or area.
- Presumably, disruption and disturbances may be referring to the presence of earthwork equipment, trucks, and physical changes in the landscape. Noise is addressed in a separate Fact Sheet.

Discussion of Concern:

- It is important to recognize that aggregate mining is as important to the area as farming. The area history is that of an agricultural community with sparse residential development that was able to develop because of the presence of aggregate.
- History has proven that the balance between local mining and quality of life, rural tranquility, the beauty and character of the state is not negatively affected by the past and present operation of 2,500 mines.
- Despite the history of mining in the Town and surrounding area, the local population continues to rise. With increased population comes the construction of new homes on former farmland built using, on average, 200 to 500 tons of locally sourced aggregate from a mine such as the one proposed.
- Experience has shown that for the long-term residents of a rural community, residential and commercial development has the largest impact on changing the character of a community.
- Coincidentally, in the majority of cases, it is not the local farming community that creates and organizes opposition to a local mine, but it is the non-farming residents.
- With any land use, it cannot be invisible and there will be some degree of noise, traffic, and activity that will occur as a result. This is equally true for residential, commercial, tourist and agricultural uses. Compared to other land uses, the proposed mine will have minimal physically visible exposure to the public.
- It is reasonable to expect that based on the general lack of awareness of mines in Wisconsin that the proposed mine will not be noticed by the vast majority of residents.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine and the history of mining in the Township and area, there is Insufficient Evidence to demonstrate negative effects on the quality of life in the Township and area of the proposed mine.
- **Intensity**: Available data does not indicate that the proposed changes in temporary land use is substantially different from past and existing use in the Township and area to contribute to negative effects on quality of life at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of effects for the Township are anticipated to be Low. There is Insufficient Evidence to judge the negative effects on the County.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact the quality of life in the Township or County.

Conclusion:

- The proposed use will not be disruptive or create disturbances.
- There is no evidence that the proposed mine will necessarily or certainly impact quality of life and create a nuisance.
- There is no evidence that the proposed mine will impact quality of life and cause harm that is inevitable and undoubted.

Impact on Tourism

Concern:

- A mine will negatively impact tourism.

Basis of Concern:

- Belief that all mines are visually unattractive.
- Belief that truck use of local roads will deter tourism.
- Belief that the presence of a mine will deter patronization of local commercial and tourist businesses.

Discussion of Concern:

- The mine may be noticed by tourists travelling on Valley Road.
- Local tourist attractions that might be impacted were not identified.
- Local commercial businesses that might be negatively impacted were not identified.
- An increase in tourism and commercial businesses would have a significant impact on and change the character of the Township and County and also impact local road use.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine there is Insufficient Evidence to demonstrate negative effects on tourism and commercial businesses in the Township and area of the proposed mine.
- **Intensity**: Available data do not indicate that the proposed use is substantially different from past and existing use in the Township and area to contribute to negative effects on tourism and commercial businesses at the local or community level. There is Insufficient Evidence to judge the intensity of effects on the Township or County.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact tourism or commercial businesses in the Township or area.

Conclusion:

- The proposed mine will not negatively impact local tourism or commercial businesses.
- There is no evidence that the proposed mine will necessarily or certainly impact tourism and commercial businesses and create a nuisance.
- There is no evidence that the proposed mine will impact tourism and commercial businesses and cause harm that is inevitable and undoubted.

Summary Sheets and Fact Sheets

Economic Impact Concerns

ECONOMIC IMPACT CONCERNS

Comments relating to economic issues may potentially revolve around sentiment suggesting it is wrong, or for some reason unfair, for a property owner to realize economic or related benefit from use of their land such as the creation of ponds or lakes. The Applicant, property owner, or any other existing or proposed business should not need to defend their desire to prosper. This issue is another of the several unique challenges companies face in the process of obtaining a license to operate. Although there should be no obligation to defend this position, we address the issue because of its prevalence as a concern commonly raised.

Whether an area of a proposed mine has a general land use primarily focused on industry, commercial, agriculture, or tourism, the overarching objective of the particular business or land use sector is economic. Each land use has an impact one way or another on the nearby, perhaps different, land use. Individuals that promote tourism are driving to bring in people so they can spend their money on the local tourist businesses who can then realize economic benefit. Industrial, commercial, and agricultural businesses similarly work for the same reasons, to realize an economic benefit and a profit. Realizing an economic benefit is generally allowed if the proposed land use and activity will not cause adverse effects on other properties in the neighborhood and on the general health, safety, and welfare of the public. The Application for the proposed mine considered each of those potential impacts and were developed to avoid negative impacts and becoming a nuisance.

Need

Concern:

- There is no need for a mine.
- Would set major precedent for other petitions in this gravel-hungry economy.
- Available aggregate will create a demand for additional growth and increase the energy and carbon footprint.

Basis of Concern:

- There are existing nearby sand and gravel pits, there is no need for another one.
- The existing sources of aggregate should be sufficient for the Town's use.

Discussion of Concern:

- Concern does not recognize the fact that the need is driven in part by continued development of residential properties on agricultural land – similarly forcing more road improvements and commercial development to expand.
- Asphalt is comprised of 95% aggregate = sand, gravel, crushed stone, and 5% bitumen (asphalt).
- 100% of the base course beneath asphalt layers is aggregate.
- Aggregate comprises 100% of the roads, driveways, and parking lots in the Township and County – with or without asphalt or concrete.
- Every new home will require, on average, 200 to 500 tons of aggregate.
- The majority of housing units in the Town are single-family homes.
    - 100% have aggregate or paved driveways (>100 miles), garages, and basements.

- 100% will need additional aggregate at some point in the future.
- All future homes will require about 200 to 500 tons of aggregate.

- There is substantial need for aggregate in the community and a local mine will provide benefit to the Town and County.
- There are about 25 to 30 miles of roads in Verona Township.
  - 100% will require additional aggregate and pavement in the future.
    - ~5 miles of US and State Highways;
    - ~8 to 9 miles of County roads; and
    - ~25 to 30 miles of Township roads.
  - Each mile of road will require >6,000 cubic yards of aggregate, more for US and State highways.
- It is increasingly challenging for paving contractors to obtain the locally sourced high quality aggregate for use in asphalt and concrete.
- Aggregate properties vary amongst deposits and the ideal aggregate for use in asphalt is not available in every aggregate mine.
- The ideal aggregate properties summarized below are obtained from crushed gravel and will be achieved from the aggregate produced at the proposed Wildcat Pit.
  - **Toughness.** Toughness or hardness is the ability of the aggregate to resist crushing or disintegration during mixing, placing, and compacting; or under traffic loading.
  - **Soundness.** Although similar to toughness, soundness is the aggregate's ability to resist deterioration caused by natural elements such as the weather.
  - **Particle shape.** The shapes of aggregate particles influence the asphalt mixture's overall strength and workability, as well as the density achieved during compaction. When compacted, irregular particles such as crushed stone and gravel tend to lock together and resist displacement.
  - **Surface texture.** Workability and pavement strength are influenced by surface texture. A rough, sandpapery texture results in a higher strength than a smooth texture. Although smooth-faced aggregates are easy to coat with an asphalt film, they are generally not as good as rough surfaces; it is harder for the asphalt to grip the smooth surface.
  - **Absorption.** The porosity of an aggregate permits the aggregate to absorb asphalt and form a bond between the particle and the asphalt. A degree of porosity is desired, but aggregates that are highly absorbent are generally not used.

Conclusion:

- The Applicant and road owners need the ideal quality of aggregate to produce quality asphalt and concrete.
- The ideal aggregate quality is present at the proposed Wildcat Pit and is not found everywhere.
- The closer the aggregate, the lower the cost of aggregate and pavement to the local community.

Summary Sheets and Fact Sheets

Environmental Concerns

ENVIRONMENTAL CONCERNS

Environmental concerns raised pertaining to **noise, dust/air quality, surface water,** and **groundwater** are addressed below.

Mining is the most highly regulated industrial business in the United States. Mining is regulated at the federal, State and local level on environmental, health and safety performance. Environmental performance is tightly controlled through permit-required regulations, self-implementing regulations, and industry-standard Best Management Practices (BMPs). Permits are required as a result of various federal and State programs, including:

- Federal Clean Water Act, administered by the Wisconsin Department of Natural Resources (WDNR), the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit, and other related laws and programs;
- Federal Clean Air Act; administered by the WDNR Air Permit;
- Wisconsin Department of Agriculture Trade and Consumer Protection Vehicle Scale Operator License;
- WDNR High-Capacity Well Permit; and
- Wisconsin Mining Reclamation Permit, administered by the local unit of government that issues the Conditional Use Permit to mine.

In addition to the permits, mines must adhere to several self-implementing regulations such as storm water, spill prevention, Toxic Substances Control Act (TSCA), waste management, etc. Additionally, the Applicant, like all companies that operate in Wisconsin, are obligated to comply with the Wisconsin Spill Law.

Through implementation and oversight of federal and State environmental programs, United States Environmental Protection Agency (USEPA), WDNR, and operators address the environmental concerns. Wisconsin law does not have a requirement for nonmetallic mines to prepare an Environmental Impact Study (EIS) in addition to the established federal and State environmental regulations that address air, surface water, groundwater, and reclamation. In addition, local units of government, such as municipalities, townships, and counties do not have an established regulatory framework, review process, or budget to initiate such a complex process for permit applications.

Noise

Concern:

- Neighbors are worried about noise.

Basis of Concern:

- Belief that mining operations produce a significant amount of noise.

Discussion of Concern:

- It is reasonable to expect that like any land use there will be some degree of noise.
- Proposed noise control procedures are described in the Conditional Use Permit Application.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine, the location of sound sources below surrounding grade, the distances to nearby receptors, and the presence of nearby residences on roads and highways with speed limits of 45 to 55 miles per hour (mph), negative effects on noise in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects of noise at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of noise effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is Weak Evidence for the concern that the proposed mine will impact noise in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on noise in the Township.

Conclusion:

- Valley Road is parallel to the northern boundary of the proposed mine property, which has a speed limit of 45 mph. Latest Wisconsin Department of Transportation (WisDOT) traffic counts on State Highway 69, within ¼ mile east and State Highway 18/US Highway 151 is less than ¼ mile north were 6,200 Annual Average Daily Traffic (AADT) and about 27,000 AADT respectively; 4 to 19 vehicles per minute.
- Noise levels collected proximal to other roadways determined that typical road traffic traveling at 45 mph can range from 68 to 84 dB when measured 50 feet from the roadway. The existing noise generated from highway 69 and highway 18/151 traffic will be significantly louder and continuous (24/7) at residential properties than the proposed mining operation.
- The proposed mine will generate minimal noise that will be detected by nearby residents, particularly while mining and crushing operations are proposed for a short period of time during the winter when most people are located indoors.
- There is no evidence that the proposed mine will necessarily or certainly impact noise and create a nuisance.
- There is no evidence that the proposed mine will impact noise and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing noise is attached.

NOISE

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix H - Noise Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.1.2.1, 2.1.2.3, 2.1.2.4, and 2.2.8

- Under the Clean Air Act, the USEPA established the Office of Noise Abatement and Control (ONAC) to carry out investigations and studies on noise and its effect on public health and welfare. In 1981 the USEPA concluded that noise issues were best handled at the State and local level. As a result, ONAC was closed and the primary responsibility of addressing noise issues was transferred to State and local governments.
- Primary responsibility for the control of noise rests with state and local governments.
- Twelve states and the District of Columbia have noise statutes and regulations, most of which are applicable to quarry operations.
- Noise standards are regulated at the local level through ordinances, but there are no universal standards applied.

Technical Summary

For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.5

- Like any land use from industrial to agricultural and residential, quarrying is not silent. Some amount of noise is inevitable.
- Noise is regulated in all industries for worker safety and health. In the quarry industry, the U.S. Mine Safety and Health Administration (MSHA) imposes limits on noise based on established guidelines considered protective of workers. Noise reduction beyond that is subject to local noise ordinances or is a voluntary good business practice.
- Noise complaints associated with new quarry development often reference quality of life and moving to the country for quiet and tranquility. Such comments do not recognize the fact that living without noise is impossible or recognize the magnitude of noise created by daily life.
- Quarry operations control noise through the selection of equipment that has a lower noise rating where feasible and available.
- On stationary equipment, barriers can be installed to shield, reflect, or absorb noise to limit its propagation beyond property boundaries.
- Heavy equipment manufacturers have improved engine design to the point where the backup alarms commonly produce the highest noise level and have become the subject of more noise complaints than the equipment itself due in part to its unpredictability when heard.
- Backup alarms are not only required, but they are necessary, and they are intentionally designed to be heard and capture attention.
- Backup alarms are evolving and can vary the decibels based on sensors that measure ambient noise and object detection.
- Directional white noise multi-frequency alarms focus in the area of risk rather than in all directions away from the equipment in an audible “ssh-ssh” locatable sound.
- Most local governments do not have the scientific background and expertise necessary to regulate noise levels.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Dust/Air Quality

Concern:

- Industrial dust
- The mine will produce dust.

Basis of Concern:

- Exposed soil and sand have the potential to form dust.

Discussion of Concern:

- The proposed mining operation will implement a fugitive dust plan and operate in accordance with applicable State air permitting regulations.
- The proposed mining operation will be a wet operation.
- The Wisconsin Department of Natural Resources (WDNR) regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415, Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.
- Proposed dust control procedures are described in the Special Exemption Permit Application on page 8 and Attachment 5.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the implementation of the proposed dust control procedures, negative effects caused by dust in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects caused by dust at the local or community level. Though there may be some individuals who are exceptionally sensitive, the intensity of effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is Weak Evidence for the concern that the proposed mine will impact dust and air quality in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on dust or air quality in the Township.

Conclusion:

- Dust will be controlled and will not create a nuisance.
- The health effects of dust are discussed in the Safety and Health Risk Concerns Fact Sheet that follows.
- There is no evidence that the proposed mine will necessarily or certainly impact dust and air quality and create a nuisance.
- There is no evidence that the proposed mine will impact dust and air quality and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing air quality is attached.

AIR QUALITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix D - Air Quality Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.1

- Air quality is protected by several federal and state regulations designed to manage and minimize the potential impacts on air quality from quarry operations. The federal regulator is the USEPA and the state regulator is the state environmental protection agency.
- The Clean Air Act (CAA) is the federal law regulating air emissions and is one of the most comprehensive air quality laws in the world. In addition to federal CAA regulations, each state established a series of regulations to comply with the CAA requirements.
- The primary pollutant regulated and controlled at quarry operations is dust, also referred to as particulate matter (PM). The USEPA regulates PM emissions, including particles 10, 4, and 2.5 micrometers in diameter or smaller, referred to as PM_{10}, PM_4, and $PM_{2.5}$. As a point of reference, a typical human hair is about 50-70 microns thick.
- Fugitive dust is regulated by specific requirements for fugitive dust control plans applicable to quarry operations.
- State regulations include requirements for plans to include when specific dust suppression activities will be implemented and require companies to keep records of those dust suppression activities.
- Quarry operations often need to obtain an air permit approval before constructing a new source of emissions or modifying an existing source of emissions.
- Ultimately, the quarry operation is subject to a comprehensive air permit that addresses emission sources through applicable requirements, including testing, monitoring, recordkeeping, and reporting.

Technical Summary

For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.1

- Air quality concerns raised in association with quarrying pertain to dust and particles of crystalline silica small enough to be inhaled, particles measuring below 10 micrometers in diameter.
- Particles sized PM_{10} are inhalable but are generally too large to deposit in the distal (deep) airways of the lungs; whereas PM_4 and $PM_{2.5}$ are of concern because these particle sizes are small enough to be inhaled and travel to the distal airways where alveolar respiration occurs.
- Silicosis is an inflammation of the lung and other respiratory tissues that eventually causes fibrosis, a hardening of the lungs, reducing the ability to breathe efficiently.
- The concentrations of dust during quarry operation are controlled to be lower than occupational exposure limits. Much of the material handling is done when the material is wet or moist.
- Concerns over crystalline silica dust and silicosis in the quarry industry are legitimate, but the issue is not a new or lightly considered issue by the quarry industry and has been studied for almost 100 years.
- Fears of a public outbreak of silicosis as a result of quarry operations are not supported by air monitoring data.
- Quarry operations are required to take actions to prevent and minimize fugitive particulate matter emissions, perform an annual survey to identify uncontrolled sources of particulate matter emissions and prepare a written fugitive dust control plan.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate air quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Safety and Health Risk

Concern:

- The mine will have negative health effects and cause or worsen asthma.
- The dust from gravel pits can have harmful effects on human health.

Basis of Concern:

- Dust will cause negative health effects.
- The dust may contain silica.

Discussion of Concern:

- Like any industrial operation, mining is not without risks. Those risks are managed to the extent practicable under strict regulatory oversight by the WDNR and the Mine Safety and Health Administration (MSHA). It should be made clear that properly managed sand and gravel operations are safe and do not pose unnecessary risk to the public or mine workers and the proposed operations will also be safe.
- The proposed mining operation will implement a fugitive dust plan and operate in accordance with applicable State air permitting regulations.
- The WDNR regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415 of the Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.
- Proposed Dust Control Procedures are described in the CUP Application.
- The sand is the same that is present on area beaches, unpaved driveways, and farm fields in the Township and County.
- Sources of crystalline silica dust in ambient air include agricultural fields, unpaved roads, silica-containing soil that naturally washes onto paved roads or is spread onto paved roads in the winter, mining, construction, foundries, glass manufacturing, abrasive blasting, or any industrial use of sand and quartz.
- Silica may comprise 50% of the sand present in the glacial outwash sand and gravel deposits in Dane County.
- Concern over silica dust is not a new issue but is one that has been under consideration and study for almost 100 years.
- It is logical to assume that the potential for exposure to crystalline silica would be highest at industrial sand mine and processing operations where the material mined is 99+% pure silica. Most industrial sand operations in western Wisconsin mine and process one-half to more than one million tons of sand per year at each facility.
- Studies have demonstrated that industrial sand mine workers and the public are not exposed to PM (dust) or silica. The same regulatory controls and Best Management Practices (BMPs) are used to control exposure at sand and gravel mining operations.

Characterizing the Effects

The Institute for Wisconsin's Health, Inc. (2016), Health Impact Assessment of Industrial Sand Mining in Western Wisconsin, evaluated PM10 and silica.

- In regard to PM10:
  - **Likelihood:** Based on the available data collected at industrial sand facilities and on published epidemiologic literature, health effects from the impact of industrial sand mining on community-level air quality related to PM10 are Unlikely.
  - **Intensity**: Available data do not indicate that the levels of PM10 are high enough to contribute to health effects at the community level. Though there may be some individuals who are exceptionally sensitive, the intensity of health effects for vulnerable populations (children, elderly, those with existing respiratory conditions) and the community are anticipated to be Low.
  - **Quality of Evidence**: Evidence is Very Strong for the conclusion that industrial sand facilities are Unlikely to Substantially Impact PM10 to the extent of exceeding air quality standards. The evidence is based on site-specific PM10 data collected using methods that meet federal standards. These data have been reviewed by air quality experts at the WDNR and made publicly available.
- In regard to silica exposure:
  - **Likelihood**: Based on the available data collected at industrial sand facilities and on published epidemiologic literature, it is unlikely that community members will be exposed to respirable crystalline silica from industrial sand mining as currently regulated; therefore, health effects from exposure are Unlikely.
  - **Intensity**: Available data do not indicate that levels of respirable crystalline silica near industrial sand facilities or nearby communities exceed the long-term reference exposure level and, as a result, the intensity of health effects at the community level are anticipated to be Low.
  - **Quality of Evidence**: Evidence is Very Strong for the conclusion that industrial sand facilities, as currently regulated in Wisconsin, Are Unlikely to Substantially Impact levels of respirable crystalline silica on a community level. The evidence is based on site-specific respirable crystalline silica data collected in Wisconsin and Minnesota. This data was collected according to federal air monitoring standards, reviewed by air quality experts, and made publicly available.

Conclusion:

- Dust will be controlled and will not result in negative health effects for the mine workers or neighbors.
- There is no evidence that the proposed mine will necessarily or certainly cause dust and create safety and health risks to the Township and create a nuisance.
- There is no evidence that the proposed mine will cause dust and create safety and health risks to the Township and cause harm that is inevitable and undoubted.

Surface Water

Concern:

- This project is too close to rivers and wetlands in the area.
- Groundwater pumping in the mines will negatively impact the nearby wetlands.

Basis of Concern:

- Mine dewatering can lower the water table at the mine and in nearby wetlands.
- Excavations expose soil and sand that may become entrained in surface water runoff from precipitation.

Discussion of Concern:

- There are no wetlands on the proposed mine property.
- The potential for surface water impact exists today due to tilling of the land.
- The mine will be internally drained, so there is no potential for runoff from the mine and the potential for runoff from the property will continually decrease with mine development.
- The mine will remain wet and become a lake with limited exposed soil.
- Surface water concerns are considered at every existing and proposed mining and processing operation, groundwater and surface water experts, and the WDNR. Appropriate permits will be obtained, and safeguards developed for the proposed operations.
- Several environmental regulations are in place to restrict mining activities and protect waters of the State, including the Wisconsin Pollutant Discharge Elimination System (WPDES), Storm Water, Construction and Operation Discharge Permits. Storm water and process water are regulated and closely monitored through the WPDES Permits. From WDNR's perspective, the WPDES permitting system ensures that water samples are collected and analyzed to demonstrate that water is not discharged that could impact surface water. Through adherence to this process, the WDNR is confident that the quality of water discharged to surface water is adequately regulated.
- The WDNR issues the operator and other nonmetallic mining operations a General Permit to Discharge under the WPDES and routinely inspects compliance with the permit at the existing operations.
- The operator recognizes surface water as a critical natural resource that they are obligated to protect to ensure the mining and processing operations do not impact surface water.
- Water will not be pumped and discharged from the proposed mining operation. The only water that will leave the property and potentially flow into a nearby ditch or drainage system is storm water that never enters the mine but either falls directly on the property or flows across the agricultural portion of the mine property during precipitation events as presently occurs.
- The proposed mining and processing operations will not discharge process water or waste of any kind into area streams. The process water used to wash the sand will be in a closed-loop system and recycled. The fine material washed out of the sand will be allowed to settle in ponds and returned to the mine as part of the reclamation process or beneficially used elsewhere.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations, the lack of mine dewatering, and the design of the mine to be internally drained, negative effects on surface water in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects on surface water at the local level and the intensity of effects for the Township are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact surface water in and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on surface water in the Township.

Conclusion:

- Based on the mine design and plans, there is no conceivable mechanism by which the proposed mining operation will have a detrimental effect on nearby streams or wetlands.
- There is no evidence that the proposed mine will necessarily or certainly impact surface water and create a nuisance.
- There is no evidence that the proposed mine will impact surface water and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing stormwater is attached.

SURFACE WATER

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix G - Surface Water Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.3

- Federal regulations developed to ensure surface water quality are administered by the USEPA through the Clean Water Act (CWA); Safe Drinking Water Act (SDWA); Spill Prevention, Control, and Countermeasure (SPCC) Rule; and Facility Response Plan (FRP) Rule. The regulations are enforced by authorized state environmental agencies.
- The CWA is the primary federal law in the United States governing water pollution, regulating discharges of pollutants into the waters of the United States, and regulating quality standards for surface waters.
- Congress amended the CWA to control stormwater pollution caused by rain or melting snow that flows from rooftops and over paved areas, bare soil, and sloped lawns that may collect and transport waste, litter, salt, pesticides, fertilizers, oil and grease, soil, and other materials to waters of the U.S.
- Federal regulations require owners of stormwater pollution sources to have a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit and create plans and implement management practices that eliminate or reduce stormwater pollution.
- Many states regulate wastewater discharges at quarry operations. The most common discharges are quarry dewatering and wash water generated from the rinsing of crushed stone, sand, and gravel with water to remove clay and silt-sized particles.
- Discharges to surface water are considered waters of the state and groundwater via seepage and are regulated. Many states issue general permits for wastewater discharges from quarry operations.
- Permitted facilities must develop a site-specific Stormwater Pollution Prevention Plan (SWPPP). The goal of the SWPPP is to outline how a facility will minimize stormwater pollution and implement site-specific Best Management Practices (BMPs) with implementation schedules to prevent contaminated stormwater runoff from a facility.
- Some states also regulate the construction of ponds, lakes, or artificial waterways developed by quarrying.
- Many states also regulate the management of accumulated sediment from stormwater management structures.

Technical Summary
For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.4

- Quarries have potential interactions with surface water present at or near operations in the form of wetlands, ditches, streams, ponds, or lakes.
- Potential surface water quality impacts may arise from stormwater or process water used to wash sand, gravel, and crushed stone of fine clay and silt particles.
- Accidental discharges can occur during extreme precipitation events if components of a stormwater or process water management system fail.
- Although the discharge of sediment into surface waters is a form of pollution regulated at multiple levels, such pollution differs from other forms of pollution and in many ways mimics natural processes. It is important to recognize that stream valleys would not exist if it were not for erosion.
- Most Local governments lack the expertise of the federal and state environmental agencies to regulate surface water.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Groundwater Quantity

Concern:

- Mining will negatively impact groundwater.
- Mining will negatively impact water supply wells.

Basis of Concern:

- Mine dewatering can lower the groundwater table.

Discussion of Concern:

- The impact of mine dewatering on groundwater quantity is a common concern.
- The mine plan does not include mine dewatering, so the mining operation is not designed to lower the groundwater table to facilitate mining in the dry.
- The majority of water supply wells in the area obtain water from the sand and gravel aquifer.
- The aquifer will have the capacity to provide the required water needs of the proposed mine with minimal impact on the groundwater table surface.
- With very little drawdown expected near the mine pit where water will be pumped and returned to the mine, there is no possible means to lower the water table near Sugar River or Badger Mill Creek.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the lack of mine dewatering, negative effects on groundwater quantity in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that groundwater use at the proposed mine will contribute to negative effects on groundwater quantity at the local or community level. Though groundwater use may result in some changes to groundwater levels, the intensity of effects for neighbors and the Township are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact groundwater quantity in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on groundwater quantity in the Township.

Conclusion:

- There is no evidence that the proposed mine will necessarily or certainly impact groundwater quantity and create a nuisance.
- There is no evidence that the proposed mine will impact groundwater quantity and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing groundwater quantity is attached.

GROUNDWATER QUANTITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix E - Groundwater Quantity Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.2

- Water supply wells may be used by quarry operations to obtain water for washing aggregate to remove fine particles and produce a clean or "clear" stone.
- Use of high-capacity wells may prompt concern that quarries will affect the quantity of water available for neighboring properties.
- Water rights laws vary in each state. Wisconsin and other states define a high-capacity well system as one or more wells on a property that have a combined pump capacity of 70 or more gallons per minute.
- Where required, high-capacity well permit applications are evaluated by environmental and/or natural resources regulatory agencies to assess the potential impacts to waters of the state.

Technical Summary
For more detailed information refer to Chapter 5 Addressing Environmental Concerns – Section 5.2

- Private wells are the primary source of drinking water in many rural areas.
- Most quarries are groundwater sinks, meaning that groundwater flows toward most quarries.
- Quarries that do not pump groundwater may have a slight inward hydraulic gradient but would not have an overall negative impact on the groundwater table and impact potable water supply wells or most ecological resources.
- Quarries that dewater will lower the groundwater table surface and need to understand the extent of that decline through predictive modeling and monitoring. Such monitoring is best accomplished through cooperation with nearby residents that have potable water supply wells.
- The amount of water used at a quarry varies greatly and the extent to which water is recycled. Closed-loop systems that recycle 90 percent of the water can consume as little as a few thousand gallons per day.
- Open-loop quarry wash systems are rarely used as it is more economical and logical to recycle water within the quarry and processing area through reuse.
- Although the term water consumption is often used, water used in the wash process is not actually consumed. Water pumped from a well or a quarry sump is ultimately returned to the same regional surface water/groundwater system.
- As unpleasant as it may seem, consider each well and septic system at a farm or dense subdivision where all the water pumped, used, consumed by people and livestock, and flushed may be reused many times over.
- Groundwater experts (hydrogeologists) study the groundwater for federal, state, and local governments as well as the quarry industry, and state hydrogeologists and engineers evaluate permits where required for wells.
- The impact of groundwater pumping at a quarry is site-specific and is based on the ground surface and groundwater elevation, geology, hydrogeologic characteristics of the groundwater aquifer, proximity to surface water, and presence of other nearby groundwater users.
- Quarry operators rarely go to war with neighbors over groundwater.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate groundwater quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Groundwater Quality

Concern:

- Mining will negatively impact groundwater quality because diesel powered equipment will be used.

Basis of Concern:

- Concern over the potential for groundwater pollution from chemical and petroleum use in the mine.

Discussion of Concern:

- The chemical use at the mine will be less than that used in agricultural applications.
- The petroleum use at the mine will be similar to that used in agricultural applications. Underground petroleum storage tanks will not be installed. Aboveground petroleum storage tanks are not anticipated at this time and, if used, would need to comply with State and federal regulations.
- Nonmetallic mining operations are not known to be common sources of groundwater contamination.

Characterizing the Effects

- **Likelihood**: Based on the expected compliance with State regulations and the minimal chemical and petroleum use consistent with current use, negative effects on groundwater quality in the area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed mine will contribute to negative effects on groundwater quality at the local or Township level and the intensity of effects for the area are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact groundwater quality in the Township or area and Moderate to Strong Evidence that the proposed mine Will Not Have a Negative Effect on groundwater quality in the Township.

Conclusion:

- The potential for negative impacts to groundwater quality are not present at the proposed mine.
- There is no evidence that the proposed mine will necessarily or certainly impact groundwater quality and create a nuisance.
- There is no evidence that the proposed mine will impact groundwater quality and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing groundwater quality is attached.

GROUNDWATER QUALITY

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix F - Groundwater Quality Fact Sheet

Regulatory Summary
For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.2.3

- Federal regulations developed to ensure water quality are administered by the USEPA through the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA). The regulations are enforced by authorized state environmental agencies.
- Under the law, the USEPA sets national standards for drinking water. The states must meet or exceed those standards.
- The SDWA regulates all drinking water from aboveground and underground sources.
- Drinking water is also regulated at the state level.

Technical Summary
For more detailed information refer to Chapter 5.3 Addressing Environmental Concerns

- Groundwater quality is a genuine concern but is a very low risk. Documented cases of contamination of groundwater aquifers or potable water supply wells from nonmetallic quarry operations are rare.
- Potential groundwater contaminant sources at most quarry operations consist of oil and fuel used in equipment and blasting agents used in bedrock mining operations.
- Concerns have been raised over the use of water-soluble polymers used to treat wash water, but those chemicals have little to no potential for contaminating groundwater or drinking water supply wells.
- Fuels and oil use and storage are closely regulated and monitored at all commercial and industrial operations with a primary focus on the prevention of surface water contamination.
- Stormwater Pollution Prevention Plans (SWPPP) and/or Spill Prevention, Control, and Countermeasure (SPCC) Plans are required of most quarries and provide the best management practices to identify and address spills to avoid impact to groundwater.
- To recycle the water used in some quarry processing, operators use water-soluble polymers to remove small clay particles from the water. One of those polymers is polyacrylamide, the same safe chemical used by most municipal drinking water and wastewater treatment facilities.
- Although acrylamide is a neurotoxin and is highly mobile in water, it does not present a threat to public health because naturally occurring microbes in soil and water can degrade acrylamide to nontoxic products in days to months.
- The water-soluble polymers used at quarry operations are approved by the National Sanitation Foundation (NSF) and American National Standards Institute (ANSI) Standard 60 for the treatment of drinking water.
- For comparative purposes, municipal drinking water treatment facilities add polyacrylamide directly to drinking water; quarry operations add polyacrylamide to the wash water, which is muddy water from washing sand or rock and is not a source of drinking water.
- Most local governments lack the expertise of the federal and state environmental agencies to regulate groundwater quality.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

Traffic and Road Concerns

Concern:

- The mine will result in excessive traffic.
- The mine will damage Valley Road.
- A large number of trucks will enter and leave the mine.
- Truck traffic/road wear and tear.

Basis of Concern:

- Dump trucks are used to haul sand and gravel.
- Trucks cause wear and tear on roads.

Discussion of Concern:

- Trucking is inherent to the mining business.
- The proposed mine is located ¼-mile from state and US highways designed, built, and maintained for truck traffic.
- The WisDOT Traffic Counts TCMap[1] reports that Highway 69 had an AADT count of 6,200 vehicles per day; measured near Valley Road in 2018. Vehicle use by the proposed mine will represent a small fraction of the total volume.
- Besides ¼-mile of Valley Road other Township or County roads will not be used by the Applicant as a primary transportation route.
- The Town of Verona Comprehensive Plan recognizes that "The Town is focused on preservation and maintenance of roads rather than new construction."
- The Comprehensive Plan does not state that development and truck traffic should be discouraged to preserve roads.

Characterizing the Effects

- **Likelihood**: Based on the magnitude of the proposed mine and the use of State highways, negative effects on the roads and traffic in the Township and area of the proposed mine are Unlikely.
- **Intensity**: Available data do not indicate that the proposed use of State highways will contribute to negative effects on traffic or roads in the area of the proposed mine and the intensity of effects for the Township and area are anticipated to be Low.
- **Quality of Evidence**: There is No Evidence for the concern that the proposed mine will impact traffic or roads in the Township or area.

Conclusion:

- Traffic volume added by the proposed mine will be immaterial and unnoticed.

[1] Wisconsin Department of Transportation WisDOT Traffic Counts TCMaps found at: https://wisdot.maps.arcgis.com/apps/webappviewer/index.html?id=2e12a4f051de4ea9bc865ec6393731f8

- The proposed use will not negatively impact the County highways or local roads.
- There is no evidence that the proposed mine will necessarily or certainly impact traffic and roads and create a nuisance.
- There is no evidence that the proposed mine will impact traffic and roads and cause harm that is inevitable and undoubted.
- A Fact Sheet from the book*: Quarry Regulatory Control and Permitting - Defending the Foundation of a Sustainable Society* addressing roadways is attached.

ROADWAYS

Quarry Regulatory Control and Permitting

Defending the Foundation of a Sustainable Society

Appendix J - Roadways Fact Sheet

Regulatory Summary

For more detailed information refer to Chapter 2 Regulatory Control and Oversight of Quarry Operations – Section 2.1.2.5

- The U.S. Department of Transportation (USDOT) is a federal cabinet department of the United States government that regulates transportation and roadways.
- All mineral and construction aggregate transportation must comply with USDOT regulations.
- Each state has established an agency responsible for planning, building, and maintaining a safe network of state highways and the federal Interstate highway system.
- All users of the transportation system are required to adhere to the rules established by the state transportation agencies.
- In addition to the common rules that address road safety, quarry operators must understand and comply with rules developed to maintain road integrity.
- State departments of transportation have the authority for licensing truck drivers transporting aggregate and other minerals, as well as truck safety, load limits, and size restrictions. State DOT's also review designs and provide permits for developing access onto state highways.
- The transport of all commodities, including quarried material, is subject to rules regulating weights and measures. These can apply to weight restrictions on local and state roads.

Technical Summary

For more detailed information refer to Chapter 6 Addressing Infrastructure Concerns – Section 6.2

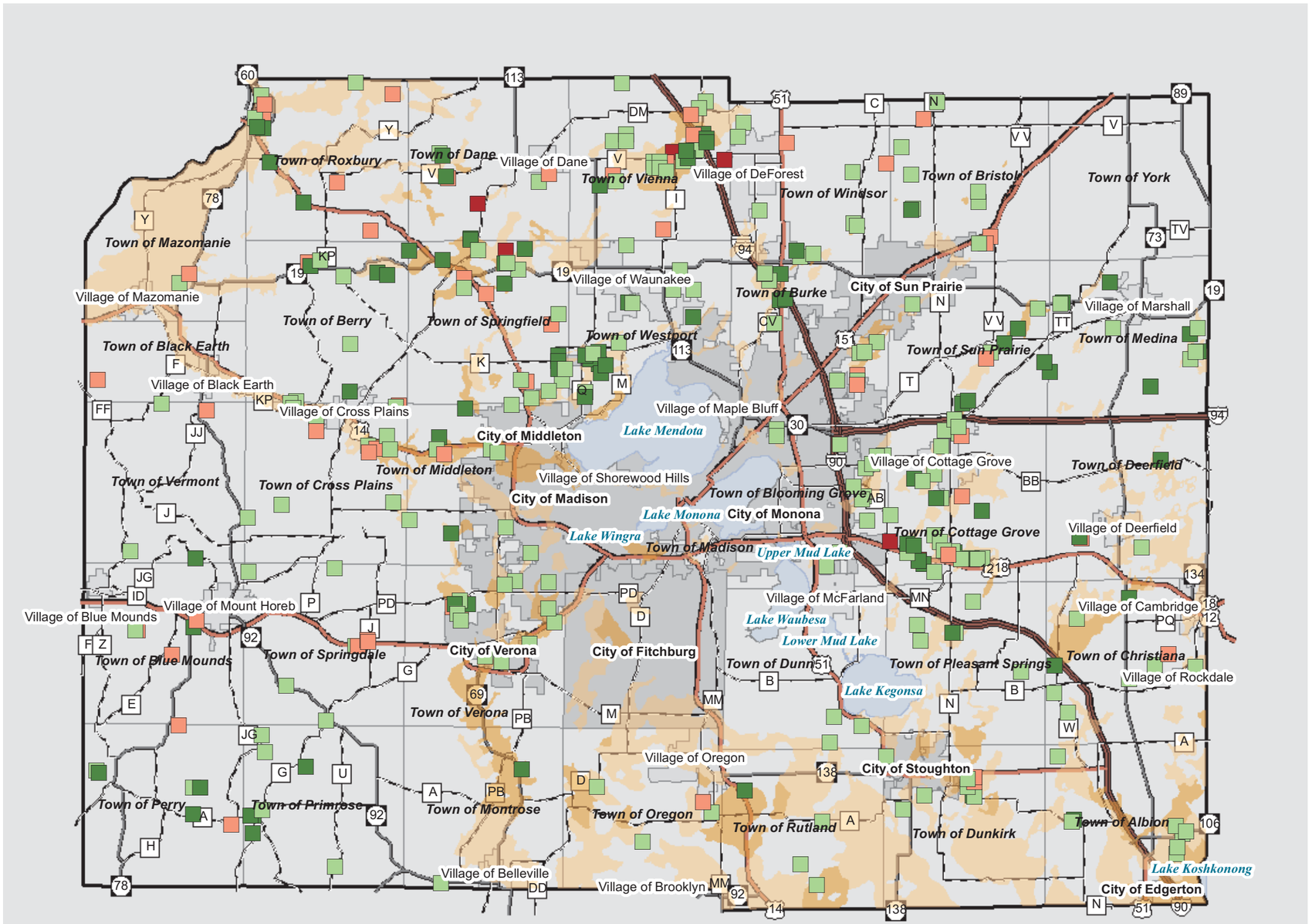
- Roads, like all other structures, deteriorate over time.
- Deterioration of roads is primarily the result of two factors: the traffic load, which is greatly affected by the volume of traffic, especially heavy vehicle traffic; and environmental factors.
- Over the lifetime of a road, a combination of these factors will cause the materials used to build the road to fail, resulting in cracking, rutting, and potholes in addition to other structural failures.
- Environmental factors affect pavement mainly through precipitation and temperature. Rainfall can penetrate the structure of the road and alter the properties of the different layers, including the underlying soil/bedrock, making the roadway more vulnerable to traffic loads.
- Temperature affects pavement properties by generating stresses and causing the road materials to expand and contract.
- Several factors influence the degree to which roads are affected by traffic, including vehicle weight, average daily traffic.
- The relationship between vehicle weight and a vehicle's potential impact on a road is exponential, not linear, meaning heavier vehicles have a significantly greater impact than lighter vehicles.
- The most common truck types for transporting quarry materials are five-axle semi-trailers (Gross Vehicle Weight, or GVW, of 80,000 lb.) and quad-axle dump trucks (GVW 73,000).
- The distribution of weight over axles has a greater influence on how the vehicle may impact a road. For example, doubling the axle weight from 18,000 lb. to 36,000 lb. on a single axle has 15 to 24 times the impact on a road not designed for that weight.
- Increasing the number of axles, while maintaining even load distribution, can reduce the impact of heavy vehicles on rural roads.
- On the state and county highway systems, the bridges and roads are structurally capable of handling traffic at the expected volumes and weight without damage or unusual wear.

From the book: Quarry Regulatory Control and Permitting – Defending the Foundation of a Sustainable Society
by Mark Krumenacher (mark.krumenacher@gza.com)

ATTACHMENT 6

Dane County Mineral Resources Map

Mineral Resources



Dane County Comprehensive Plan
Dept. of Planning & Development
210 Martin Luther King Jr. Blvd.
Room 116
Madison, WI 53703
www.daneplan.org

Potential Sources of High Quality Sand & Gravel

- High Potential
- Low Potential

Mineral Extraction Sites

- CUP Active
- CUP Expired
- Active
- Expired

Standard Legend

- Interstate
- US Highway
- State Highway
- County Highway
- City
- Village
- Town
- Major Lake

What you're looking at:

High Potential: This is land that has deposits of material that has the best potential for containing high quality aggregate that may be used in asphalt and concrete ready mix.
Low Potential: This is land that has deposits of material much less likely to contain high quality aggreagate.

For more information:
contact the Dane County Zoning Department
at 608.266.4266, 608.266.9083
http://www.countyofdane.com/plandev/

N W E S

0 6 Miles

June, 2007

Source Info: Mineral Extraction Sites: 2005 (DCPD). Road Network: 2006, Parcel Derived (DCLIO). Municipal Boundaries & Water: 2006, Parcel Derived (DCLIO).

This map was prepared through the Department of Planning and Development in conjunction with the Land and Water Resources Department, Land Information Office and the Dane County Regional Planning Commission.

ATTACHMENT 7

Groundwater Management Plan

Groundwater Management Plan
Wildcat Pit
Valley Road
Town of Verona, Wisconsin

The groundwater will be protected by following industry standard of care and best management practices for storage and handling of hazardous materials that may be used on the property. The only hazardous material anticipated to be used are gasoline and diesel fuel in vehicles and mobile equipment and possibly in a double-wall fuel storage which will comply with Wisconsin Department of Agriculture, Trade and Consumer Protection (ATCP) ATCP 93.

Spill Prevention

The following are general requirements for any hazardous substances stored or used at this facility.

General Requirements

- Ensure all hazardous substances are properly labeled.
- Store, dispense, and/or use hazardous substances in a way that prevents releases.
- Provide secondary containment when storing hazardous substances in bulk quantities.
- Maintain good housekeeping practices for all chemical materials at the facility.
- Routine/Daily checks in the hazardous substance storage area.

Spill Containment

The general spill response procedure at this facility is to stop the source of the spill, contain any spilled material and clean up the spill in a timely manner to prevent accidental injury or other damage. Small spills will be contained by site personnel if they are able to do so without risking injury.

The Wildcat Pit operation will maintain a spill kit in the processing plant area equipped with spill response materials to handle spills of approximately 30 gallons or less. Spill kit materials will be inspected on a quarterly basis and any depleted materials will be replaced on an as-needed basis. Spill kit materials available will include the following items:

- Absorbent pads/materials;
- Oil-only spill response booms;
- Personal protective equipment (PPE);
- Plastic sheeting;
- Plastic bags; and
- Raw clay (absorbents).

In the event of a large spill, a properly trained employee should:

Assess the area for any immediate dangers to health or safety. If any dangers are present, move away from the area, call 911.

- Retrieve the spill kit.
- Assess the size of the leak and any immediate threat of the spill reaching the surface water.
- If there is an immediate threat and there are no safety concerns, then block the spill from flowing to the surface water
- Use absorbent and/or absorbent pads to stop the spill from reaching the surface water
- After the spill has been controlled and contained and any immediate threat to surface water surfaces has been minimized, the affected soil will be excavated and staged on plastic sheeting pending off-site disposal approvals.

ATTACHMENT 8

Southern Wisconsin Chapter of Trout Unlimited Letter

TROUT UNLIMITED
SOUTHERN WISCONSIN CHAPTER

P.O. BOX 45555
MADISON, WI 53744-5555

To: Todd Violante, Director
Dane County Department of Planning and Development

Dane County Zoning Committee

From: Southern Wisconsin Chapter of Trout Unlimited

Re: Proposed Quarry in the Town of Verona near the Sugar River and Badger Mill Creek

The Southern Wisconsin Chapter of Trout Unlimited (SWTU) respectfully requests that the Zoning Committee direct County staff to conduct a thorough analysis of the environmental impacts of the proposed quarry near the Sugar River and Badger Mill Creek in the Town of Verona with a particular focus on the effects the quarry might have on groundwater. We ask that the County engage groundwater experts to assist in this study if such expertise is needed and/or if the groundwater model needs to be updated for that area.

SWTU has advocated, volunteered, and donated funds for the health and public enjoyment of the Sugar River and Badger Mill Creek for over 30 years. We also deeply appreciate Dane County's massive investments in land and stream restoration on Badger Mill Creek and the Sugar River. It would be wrong to permit any private development to damage those resources. Groundwater is vital to the health of both streams in that area.

Please conduct the studies necessary to be sure the quarry does not do such harm. While SWTU will await those studies before taking a position on the quarry itself, we shall be resolute in our defense of both streams.

Thank you for your consideration of this request.

Sincerely,

Steve Musser

Steve Musser, President
Southern Wisconsin Chapter of Trout Unlimited
President@SWTU.org

ATTACHMENT 9

Fugitive Dust Control Plan

Fugitive Dust Control Plan
Wildcat Pit
Valley Road
Town of Verona, Wisconsin

The Dust Control Plan was prepared in general accordance with:

1. Wisconsin Department of Natural Resources (WDNR) Conservation Practice Code #1068.
2. Natural Resource Conservation Service, Conservation Practice Standard, Dust Control on Unpaved Roads and Surfaces, Code 373.
3. Other industry best management practices.

The WDNR regulates sources of dust as particulate matter (PM) emissions under Chapter NR 415, Wisconsin Administrative Code (Wis. Adm. Code). The WDNR's Air Program developed recommended practices for reducing fugitive dust and PM from nonmetallic mining operations that will be applied to reduce PM at the mine.

The Plan applies to non-vegetated, unpaved surface where mine vehicle movement or wind action would normally occur, such as unpaved roads, mining, processing, and stockpile areas. Observations will be done daily when personnel are present at the mine.

<u>Hauling Dust Control</u>

- On-Site vehicle speeds will be posted at 15 miles per hour (mph) or slower.
- The driveway will be paved from Valley Road to the scale and parking area.
- Paved traveled areas will be swept and/or watered as needed.
- Fugitive dust emissions from traveled areas will be controlled on an as-needed basis by applying water.

<u>Material Handling Equipment (e.g., conveyors, loaders, etc.) Dust Control</u>

- Use of spray bars.
- Use of shrouds or other enclosures.

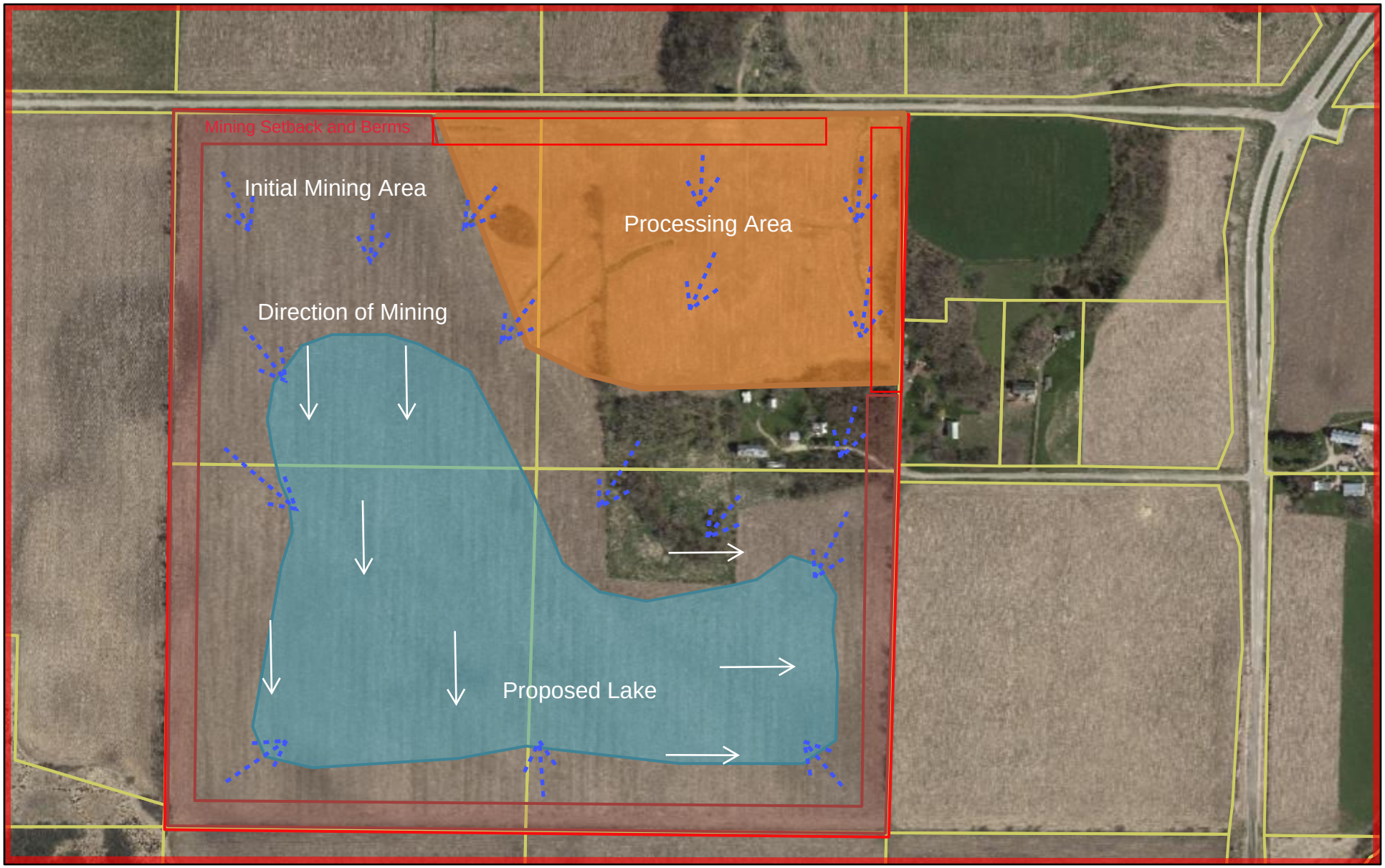
<u>Stockpiles Dust Control</u>

- Aggregate stockpiles will be located within the mine.
- Apply water on as-needed basis.

ATTACHMENT 10

Stormwater Management Plan

JMM LLC Conceptual Stormwater Management Plan



May 10, 2024

Parcels

Mining Setback and Berms

Stormwater Flow Direction

Stormwater will be diverted around disturbed areas to flow as it does prior to mining and as the mine is developed stormwater will be diverted into the mine.

Silt fence will be installed along the outside of berms prior to construction in accordance with WDNR Technical Standard 1056 Perimeter Sediment Control and Slope Interruption.

1:6,000

0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km