

*Commentary on Proposed Sand and Gravel Mining Operation
Norvell Township, Jackson County, Michigan*

Date: February 9, 2026

I was asked by a longtime friend to review this proposal and provide any input regarding questions, concerns, and/or alternate ideas. My initial reluctance to get involved was overcome when my friend gently reminded me that I had an obligation to ensure that the things I enjoy in life should be protected and available for future generations also.

As I'm writing this, I'm looking out the cabin window and seeing turkeys, deer, squirrels, and numerous birds. They are part of a scenic, snow-covered landscape which overlooks Fay Creek and the very rare fens on Mike and Diana Arnold's property. Their property and ours are home to a plethora of wildlife, including a number of endangered animals and plant life. These are some of the things I value. So, I do have an obligation and I will provide my analysis as honestly and forthright as I can.

First, I'll give you an overview of my background and experience. Hopefully this won't bore you too much and will provide some insight as to who I am, how I think and why I think that way.

General

- * My childhood was spent with my parents and two older brothers enjoying Vineyard Point on Vineyard Lake.
- * I attended Brooklyn Community Schools from Kindergarten through graduation in 1964.
- * I graduated from Michigan State University in 1968 with a business degree.
- * I moved into "the cabin" in 1968 and have always considered it as a home base.

Work Experience

* Walker Manufacturing – Walker Michigan Division

Walker is a major automotive exhaust system supplier for both original equipment and aftermarket markets. Worked for 5 years as Manager of Purchasing. Responsibilities included all procurement for 2 manufacturing plants and Walker's Engineering Research and Development Center.

* Alyeska Pipeline Service Company

Alyeska Pipeline Service Company was a consortium of major oil companies charged with the design, construction, and operation of the Trans-Alaska Pipeline.

-Construction Phase

The construction project entailed building an 800-mile crude oil line, associated pumping stations and a storage, tanker loading terminal. This project stretched from the North Slope of Alaska at Prudhoe Bay, crossing 800 miles through wilderness, crossing major rivers and mountain ranges and culminating at seawater in Valdez, Alaska.

- * My responsibilities included oversight of all material management at the Valdez Marine Terminal and a portion of the southern district of the pipeline.
- * During this construction phase, I was also blessed with my wife and family.

-Operations Phase

- * At completion of construction, I accepted a technician position at the Valdez Marine Terminal.
- * I attained a Level VI as a power/generation & Vapor Recovery operator.
- * During this time, I successfully overcame a bout with cancer.

MAJOR EVENT: EXXON VALDEZ OIL SPILL

In the very early morning of March 24, 1989, the Exxon Valdez oil tanker ran aground on Bligh Reef in Prince William Sound, Alaska. The Exxon Valdez was one of the largest oil tankers of its time, measuring approximately 300 meters in length with a capacity of 1.5 million barrels of crude oil. To help put this size into perspective, it was three times the length of a football field and as big as the biggest cruise ships or aircraft carriers. That night I reported to work as a boiler operator in the power plant. Within an hour, I was reassigned to manage the Emergency Response Center to handle the response to the Exxon Valdez accident.

After an initial assessment of the magnitude of the tanker grounding and due to darkness, deteriorating sea states, and undersized spill response vessels, I instructed all response vessels to seek shelter and remain on standby until conditions improved.

After a review of Alyeska's emergency response plans dealing with oil spill scenarios, I found a situation similar to the Exxon Valdez grounding. The main defense against a spill of this magnitude was aerial spraying of oil dispersants.

I reviewed the plan, did some math several times and realized the plan was exponentially inadequate. The math indicated there wasn't sufficient oil spill dispersants available worldwide and manufacturing capacity would take weeks to produce sufficient quantities.

Based on this, I instructed all incoming calls be redirected to the Exxon Response Center which had been established in Valdez. It was their tanker, their captain and their oil. Alyeska would supply support activities as needed.

Personal Impact

* Two or three days after the Exxon Valdez spill, I was invited to go on a helicopter tour of oil impacted areas of Prince William Sound and evaluate and assess initial response and clean-up efforts. The person who invited me was Alaska's top manager for environmental quality. He was also my oldest and best friend, buddies from 5 years old at Vineyard Lake. During this flight, we flew over some of the most beautiful, spectacular areas in the world. It was a perfect spring morning, sunshine on snow-covered mountains all the way to the beaches. The seas were dead calm. Flights of migratory shorebirds, ducks and geese were everywhere. They were landing in oil-covered water. They were doomed.

We landed on a small rocky island about the size of a football field. It was surrounded by crude oil. Initially, it was dead silence after the helicopter shut down. Eerie silence. . . And then, you could hear the most god-awful, gut wrenching tortuous screams of agony and terror surrounding us. Sea otters were swimming through that oil to the island. They were blinded and trying to clear their vision with oil soaked forepaws. And screaming. . . They were chewing on their bloody paws trying to get rid of that oil. And screaming. . . It was a sound I hope none of you ever experience. I can still hear it in my brain after 35 years and it still affects me. And this situation was being repeated over hundreds of miles of coastline.

It was a multi-billion dollar disaster with horrendous environmental impacts, all caused by human failure both in planning, impacts and execution.

CAJ

LESSONS LEARNED:

FINALLY, I'll get to how plans and proposals should be considered.

- * No matter how voluminous and detailed these proposals are, they are worthless if underlying assumptions are invalid.
- * They have to be maintained, practiced and updated. Otherwise, they are useless.
- * They have to be enforced by an overseer.
- * There should also be substantial monetary penalties for non-compliance, including cessation of operating permits.

MINING APPLICATION REVIEW

* Initial Scan

Superficially, the proposal looked relatively concise and professional. On a project of this size, this was expected.

In the Application (Zausmer letter to Norvell Township, November 17, 2025), two things caught my attention:

- (1) Noted an underscored emphasis added. **An ordinance shall not prevent the extraction, by mining,** <under Applicable Law and the MZEA, Page 24
- (2) On Page 27, the law is again referenced. **"Under Michigan law, when a site plan contains the information required by the zoning ordinance and is in compliance with the zoning ordinance, it is to be approved."** (My underline emphasis here.)

* Question: Is there an underlying adversarial relationship going on? Any hints of lawsuit, undue pressure or threats to the Township?

* Detailed Review

I was hoping for a complete detailed, accurate and honest review of this project. I was disappointed.

Page 1 of the Application says the project will:

- (1) ... **fill a demand for construction grade sand and gravel for the local and regional grade sand and gravel for the local and regional industry....**
*Keep in mind that 80% is under contract to subsidiaries of the Edward C. Levy Company. American Aggregates of Michigan is one of 59 subsidiaries. This indicates that 20% will be available for non-affiliated local and regional companies.
- (2) ..., **as well as increase the local tax base,**

*How much will it increase and how will it benefit Norvell Township residents and taxpayers?

(3) **..., diversify the local economy**

*How and how much will actually benefit Norvell Township residents and taxpayers? I'm guessing negligible benefits.

(4) **... and provide job opportunities for the local community.**

*Only 6-8 employees are expected to operate this facility, of which 3 or 4 are already employed by the company. Consider that these few employees are responsible for mining, crushing, loading trucks, maintenance of roads, facilities, equipment and reclaiming mining operations concurrently. All of these activities while guaranteeing a safe, efficient, environmentally sound operation.

(5) **Further, the extraction of these natural resources would not cause "very serious consequences" and therefore, not be in violation of the MZEA.**

*This is undoubtedly the most subjective and misleading statement thus far.

Page 3 of the Application under The Project heading says:

"AAOM estimates the project contains approximately 12,500,000 cubic yards (or about 17,000,000 tons) of marketable sand and gravel reserves."

Meanwhile, the **Project Report** (Section 1.2 Project Phases) says that AAOM estimates that **the project site contains approximately 7,700,000 cubic yards (or about 10,400,000 tons) of marketable sand and gravel reserves.**

Section 4.14.2 Methodology Page 4

Under Traffic Analysis Methodology – **Assumes 1,020,000 tons per year equates to 20,400,000 tons over project life.**

* What are the accurate reserves? What accounts for the highly significant differences? The actual amount of reserves impacts practically every phase of this proposal and requirements. It impacts gross revenues, mining and reclamation timelines, environmental concerns and transportation issues to name a few.

Page 3 Phases

The estimated extraction activity will take place in five distinct phases. Phases 1 through 4 will be conducted within the North Property and Phases 5 through 10 within the South Property.

Water Table

Mining activity is not proposed, at this time, to go below the water table.

* What change would require that mining activity go below the water table? The cap over groundwater ranges from 5' - 40'. Two scoops of a large backhoe could penetrate the ground and expose groundwater.

- * Any plans on identifying these 5' areas and keep them off limits to mining activity?

Page 4 Norvell Planning Commission

* Norvell Township deserves significant credit for developing and updating this mining ordinance. The amount of time and effort devoted to this work is definitely significant and much appreciated.

* Now, the hard part is to ensure that guidelines and ordinances are followed.

* The phrase "no very serious consequences" relating to the mining activity will be noted continuously in the project application. This phrase is highly debated and totally subjective.

* The phrase "no very serious consequences" may be interpreted differently by corporate leadership at the Levy Company than by residents and environmental stakeholders. Individuals living downwind of dust containing carcinogenic respirable crystalline silica, as well as those who rely on private potable water wells or who value the protection of sensitive ecological features such as ponds and rare fen habitats, may reasonably view potential impacts as significant and deeply concerning.

What about the "Industrial version^{of} Chinese water torture" of hearing loud, diesel engine gravel trucks with diesel fumes and dust passing your property every 3 minutes, 10 hours per day, 5 days per week, 52 weeks per year for 20 years.

Page 5 Site plan review is required as part of a Conditional Use permit Application.

See Article 13.4 Under the Ordinance, certain uses require additional standards as provided in Section 13.6 of Article 13. The Planning Commission shall review the circumstances and facts of each proposed use in terms of the following standards and required findings, and shall find and record adequate data, information, and evidence showing that such as use on the proposed site, lot of parcel:

E. Will not create excessive additional requirements at public cost for public facilities and services.

*This is blatantly false and will be addressed in extensive detail on traffic impacts of this project.

PROJECT REPORT REVIEW

Section 1.4 Short Term and Limited Impacts Page 3

An increase of dust levels generated by the site activities, which will be controlled within regulatory requirements through standard mitigation practices utilized by AAOM.

*Basically, the proposal is to utilize water spraying at mining sites, roadways and rock crushing facilities to minimize dust.

*The source of the water is groundwater via existing agricultural irrigation wells.

- There is only one proven irrigation well with history affecting groundwater levels. That well is in the South mining area and not the North where most water would be used.

(As I understand it.)

-The Northern well was drilled in the fall of 2025 just prior to application plans *(being submitted)*.

There is no apparent history on pumping groundwater in the North. Thus, no proven effect on groundwater levels.

*Did the permit note agricultural or mining? Was the well permit issued on the basis of agricultural use or industrial mining use?

- Groundwater levels are the main source of water impacting Watkins Lake, Arnold's rare fens, and wetland ponds in the North protected by EGLE, Michigan's environmental protection agency and domestic potable water wells.

This groundwater flow generally goes from South to North.

-Depletion or contamination of this groundwater would have a very serious consequence on people, environment, and mining project.

*How much water will this project use?

*What effect will it have on groundwater levels?

*How effective is water spraying during freezing temperatures?

*Are there plans to prevent freezing of this dust abatement resource?

*Will the processing mining, and transport operations be shut down if water is unavailable for dust control?

Section 5.6 Air Quality Page 62

It is the intent of AAOM to practice protective and mitigative measures to minimize the generation of air pollutants and dust from mining operations.

*One of the protective measures includes daily observations of fugitive dust emissions.

Questions

* Are these strictly "eyeball observations" regarding opacity requirements?

* Have all observers been trained to determine the level of opacity?

* Is there any opacity instrumentation required to monitor and record and/or alarm if limitations don't meet legal standards?

* Is there a proposal for an automatic shutdown of facilities if carcinogenic respirable crystalline silica is detected?

* Another protective measure includes weekly inspections of all emission control equipment. This is not adequate. Inspection and repair should be done on at least a daily basis and should be continual during operational hours.

- * Has there been a study of prevailing wind directions and their impact on homes or public areas surrounding the mining operation?

Section 5.7 Noise Page 62-63

Noise assessment studies

- * Studies were conducted at a Levy owned mining operation at Pleasant Lake Aggregates (PLA) in Washtenaw County, Michigan for just one day over a period of only 3-5 hours.
- * These studies should be redone due to numerous questions noted in a technical memorandum provided to Norvell Township by GEI Consultants.
- * Studies should be done at a neutral site to verify accuracy of submitted studies.
- * Regarding the proposed boundary of the processing plant site, AAOM has completely overlooked (not considered) the closest residence and property owners.
- * This resident can easily hear agricultural equipment during field prep, planting and harvesting.
- * Contrary to the minimization of truck noise by AAOM, it will be very significant, especially to those nearest the operations site.
- * This will be discussed in much further detail under TRAFFIC and HAUL ROUTES.
- * Have there been any discussions of using electric trucks versus diesel trucks? Electric trucks produce significantly less noise, emissions and are much more efficient to operate than diesels. This would enhance the mitigation efforts that AAOM has proposed and promotes.

Section 4.14.2 (Traffic) Methodology Page 56;

Section 5.8 Traffic and Haul Route Page 63

Assumptions:

1. Aggregate production 1,020,000 tons/year (equates to 20,400,000 tons @ 20 years)
Note: This is the THIRD projected tonnage mentioned thus far in this proposal.
ALL DIFFERENT.
2. 50 tons per truckload
? – Is this gross vehicle weight or cargo weight only?
3. Nine inbound and nine outbound trucks per hour
4. Operating Hours: 10 hours/day, 5 days/week -- At 52 weeks/year = 2,600 hours

Analysis:

1. Assuming 50 tons per truckload is cargo weight only, the gross vehicle weight (GVW) which includes truck, fuel and passenger weight is likely to weigh over 120,000 pounds.

2. 80% of these trucks are forecasted to travel over Hwy US-12.
3. US-12 – The maximum total gross weight allowed is 80,000 pounds (40 tons).
4. 80,000 pounds (40 tons) of gross vehicle weight likely has a cargo weight of approximately 30 tons.
5. 30 tons per truckload vs 50 tons per truckload
 1,360,000 trips – 20 years 816,000 trips – 20 years
 68,000 trips per year 40,800 trips per year
 26 trucks per hour 18 trucks per hour
 1 truck every 2.3 minutes 1 truck every 3.3 minutes
6. Essentially, this means that there will be a large truck traveling every several minutes of every hour for 10 hours a day, 5 days a week, 52 weeks per year for 20 years due to this project.
7. The noise level and emissions from these trucks will be significant and could have “very serious consequences.”
8. There is no mention of traffic impacts over the proposal’s noted market area. This area extends from the I-96 corridor in the North to the Michigan/Ohio border in the South. The Eastern boundary goes to the I-275 corridor to the Western edge of Jackson County.
9. Trips to secondary markets could be significant and further impact this immediate area of Norvell Township.

Section 4.14.4 Crash Analysis Page 57

Section 4.14.5 Pedestrian Safety Page 58

*In addition to a historic review, a forecast and analysis of potential impact of an additional 816,000 to 1,360,000 trips by very large trucks should be included.

Section 4.14.7 Conclusions Page 59

*The traffic impact study (TIS) states “**no significant adverse impact to traffic operations.**” This summation is flawed, inherently biased, and summarily disregards the impacts on people directly affected by this mining proposal. It totally ignores maintenance of these roads.

*Preferred Route Designation: Contrary to Levy/AAOM’s conclusion that this is a preferred route, it is also the worst route of the three proposed. It impacts significantly more residential areas along Horning Rd, Hardcastle Rd and definitely M-124, especially along Wamplers Lake. It is a longer route along busier roadways and increases danger to pedestrians and cyclists. The noise is especially elevated at sites closest to the mine entrance and exit to the point of being intolerable. Refer to Analysis #6. *above.*

*However, there is another route which is highly superior to any of the three studied by TIS. This route would eliminate mining traffic on Horning Rd, Hardcastle Rd, a portion of Watkins Rd and portion of Lawrence Rd. It would also reduce traffic on M-124. This proposal will be discussed later in this evaluation.

Road Maintenance and Repair

- * The impact of substantially increased heavy truck traffic due to this project will be expensive. Very expensive.
- *An analysis by Joseph "Marty" Godin (Fact Sheet January 9, 2026) indicates rehabilitation and reconstruction costs due to this project could easily exceed \$160,000,000.
- *An "Excavation Surcharge" notes a payment of 4 cents per ton shipped from this project payable to Norvell Township.
- *This payment would total only \$680,000 over 20 years.
- *This amount is less than one half of one percent of projected rehabilitation and reconstruction expenses in this area.
- *The gross value of this sand and gravel to the Levy Corporation could easily exceed \$1,000,000,000 (one billion dollars).
- *The Godin analysis indicated that Norvell Township should be asking for royalties at a base rate of \$1.81 per ton for rehabilitation to \$7.64 per ton for reconstruction of haul routes,
- * Mr. Godin's analysis should be part of any decision regarding this proposal.
- *It is especially noteworthy that the Traffic Impact Study by Fishbeck and the GEI Consultant's review provided no analysis regarding maintenance and repair costs.
- *Any statement saying this project would have minimal impact and not a single "very serious consequence" should be ignored.

Real Estate Valuation

- *Real estate professionals in this area would totally disagree that this mining operation would have no overall impact on the value or marketability of the adjacent ~~home~~^{homes} or property.
- *Remember this: One truck every 3 minutes, 10 hours per day, 5 days per week, 52 weeks per year for 20 years.

Does anyone actually believe this would have no overall impact?

ALTERNATIVE PROPOSAL

1. Relocate the aggregate processing plant and facilities from the North Property to the south part of the Southern Property.
2. Send mined aggregate from the North Property to the South Property for processing and transport. This would travel via conveyors beneath Horning Rd. The conveyor system has already been studied and proposed. Simply reverse the direction from North to South.
3. All Transport requirements would originate from the South Property via a driveway location off Watkins Rd. The traffic route would utilize Watkins Rd, Wellwood Rd, M-124 to US12.
4. Consider proximity payments to (owners of) home sites close to driveway.
5. Note that this route would eliminate mining traffic on Horning Rd, Hardcastle Rd, Lawrence Rd and miles on M-124.
6. This route would utilize private Levy property and significantly reduce a reliance and impact on public roads.

Advantages

Location of the processing plant to the Southern Property has many advantages:

- a) Lessens impact on Watkins Lake State Park from 20 years of noise and air quality concerns to 8 years.
- b) Utilizes an existing and proven irrigation well on Southern Property for water requirements for dust and emissions control. This well has an operational history affecting groundwater levels. The North well is unproven.
- c) Impacts of low groundwater levels could impact private wells, wetland ponds and rare fens located to the North of the North Property. The South Property has no wetlands, creeks, nor fens. Note that groundwater levels on the South Property could impact Watkins Lake levels.
- d) Air quality and sound levels will generally be affected by prevailing winds. The South Property would affect fewer people due to W/SW winds.
- e) Required private roadways in the South Property have already been planned. Reference Figure 10 – Future land use concept. Page 15.

Obviously, this proposal does not eliminate all concerns regarding this mining project. It does help lessen and mitigate those concerns.

SUMMARY AND CONCLUSION

Based on my experience and a review of this mining proposal as presented, I definitely WOULD NOT approve it.

Levy / AAOM could resubmit their proposal after completing the following:

1. Address all questions and concerns in a satisfactory manner.
2. Incorporate the proposals in the ALTERNATIVE MINING PLAN.
3. Raise the excavation surcharges to Norvell Township to an appropriate level.
4. Agree to pay resident and land owners most affected by this project a 'nuisance payment.'
5. Disclose any pertinent information regarding agreements, promises and discussions not noted in the proposal which directly affect this project. These would include governing agencies, both State and Local. Included agencies would be those most notably in charge of environmental and transportation issues and any others involved in this project.