June 24, 2025

Springfield Township Planning Commission
Charter Township of Springfield
12000 Davisburg Road
Davisburg, Michigan 48350

Public Comment: Edw. C. Levy Co (Burroughs Materials) Mining Project

The Great Lakes Environmental Law Center ("GLEC") is a nonprofit public interest environmental law organization dedicated to protecting communities across Michigan through legal advocacy. GLEC has represented communities, environmental organizations, and concerned citizens in complex environmental permitting matters involving extractive industries.

I. Introduction

The evidence before this Commission reveals three converging grounds that mandate denial under MCL 125.3205(5). First, the applicant's extensive violation history demonstrates inability to operate in compliance with environmental standards, creating inevitable "very serious consequences" for Springfield Township. Second, peer-reviewed scientific research establishes that gravel mining operations systematically contaminate groundwater, destroy irreplaceable wetland ecosystems, and generate harmful air quality impacts—consequences that are permanent and irreversible. Third, documented economic studies prove that gravel operations cause catastrophic property value destruction, with homes within half a mile suffering a 36% value loss and total community losses exceeding $31 million in comparable townships.

The choice before this Commission transcends a single permit application. It represents a fundamental decision about whether local communities retain meaningful authority to protect their residents from industrial operations with documented histories of environmental harm. When state regulators abdicate their responsibility to consider operator compliance history, local planning authorities serve as the final guardians of community welfare.

II. Legal Background

Under Michigan law, townships possess clear authority to deny mining permits when operations would result in very serious consequences. The burden falls on the mining company to prove three essential elements: that valuable natural resources exist, that market need exists for the resources, and that no very serious consequences would result from mining the resources.[1]

In determining whether very serious consequences would result from the operation, Michigan law permits consideration of multiple factors, including the relationship of extraction with existing land uses, the impact on existing land uses in the vicinity of the property, the impact on property values in the vicinity and along proposed hauling routes, the impact on pedestrian and traffic safety, the impact on identifiable health, safety, and welfare interests in the local government, and the overall public interest in the extraction of the specific natural resources.[2]

III. The Applicant Failed to Demonstrate its Operation Meets Legal Standards for Approval

The evidence presented herein demonstrates that this proposed operation fails to meet the legal standards for approval under each of these criteria.

A. Applicant's Market Need Claims Rest on Demonstrably Corrupted State Analysis

The 2019 Michigan Office of the Auditor General's investigative audit reveals that Levy Co.'s Executive Vice President and COO, S. Evan Weiner, while serving as Chair of Governor Snyder's 21st Century Infrastructure Commission, systematically corrupted state decision-making processes through direct executive manipulation of an aggregates market study—the very type of market analysis that mining companies must now demonstrate to satisfy Michigan's requirement that "market need exists for the resources."

The manipulated study was explicitly designed to manufacture evidence of aggregate shortages that mining companies like Levy Co. could cite, in the words of an industry stakeholder seeking a private meeting between MDOT's director and Weiner, to "substantiate our claim" that "the aggregate industry will be unable to meet the foreseeable market demands if only existing permitted mines are utilized."[3] The Michigan Aggregates Association recommended the consultant

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[1] Mich. Comp. Laws § 125.3205(5)(a)–(f)
[2] Id.
[3] Mich. Office of the Auditor Gen., Investigative Audit Report: Michigan Department of Transportation's Procurement of the Michigan Aggregates Market Study 8–9 (2019).

MDOT hired, set out the scope of work and how to price the study, and provided predetermined conclusions supporting expanded mining operations.

When MDOT attempted to develop an independent science-based approach for Phase 2, state employees were explicitly overruled because the proposal was "not what the [industry stakeholder] had in mind," forcing MDOT to abandon objective analysis in favor of industry preferences. The audit reveals that "upper management wanted MDOT to use the [industry stakeholder's] suggested Phase 2 scope" despite staff warnings that the industry sought "a tool...to engage in legislation that eases the permitting process by taking permitting authority away from local agencies."[4] In the end, the report converted approximately $100,000 in taxpayer resources into what the audit determined was advocacy material providing "little value" as legitimate research.[5]

The corrupted study's conclusions about aggregate shortages have since been cited by industry representatives in legislative testimony to support new mining permits and weaken local regulatory authority.[6]

Levy Co.'s current application likely relies on market analyses that trace directly to this manipulated research, creating a circular scheme where the company corrupts government studies to manufacture the market justifications required for their own permit applications.

When Levy Co.'s senior leadership demonstrably corrupts the very type of market analysis required under Michigan law to justify mining permits, any market need claims in their current application are fundamentally suspect.

B. Applicant's Systematic Environmental Violations Create Rebuttable Presumption of Future Non-Compliance

The applicant's violation record reveals a corporate culture of disregard that standard regulatory enforcement has proven powerless to correct. Despite accumulating nearly 100 violations across air quality, water discharge, stormwater management, and operational standards at facilities throughout Michigan, Edw. C. Levy Co. continues not only to operate but to seek expansion.

The pattern is unmistakable: at Levy Plant 6 alone, the company has received seventeen citations for "unreasonable interference with the comfortable enjoyment of life and property" between 2015 and 2024. At Cadillac-Wixom, three such violations occurred in 2024 alone. The company's Specification Stone Products

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[4] Id. at 10-11.
[5] Id. at 11-12.
[6] Paul Egan, Emails Show MDOT Let Lobbyist Steer Report on Gravel Shortage for Michigan Roads, *Detroit Free Press* (2019)

facility has violated NPDES permit requirements eighteen times since 2016, including recent unpermitted discharges and inadequate maintenance violations as recent as April 2025.

Where state air quality regulators have demonstrated unwillingness to consider operator compliance history when evaluating permit applications—a position currently under challenge by our organization before the Michigan Court of Appeals—local planning authorities represent the final safeguard protecting community welfare from operators with demonstrated patterns of environmental destruction.[7]

Given that state air quality regulators have demonstrated unwillingness to consider operator compliance history, local planning authorities represent the last line of defense in protecting community welfare from operators with demonstrated patterns of environmental non-compliance. They may be the only entities that will consider the operator's compliance history when evaluating projects impacting community health and safety.

Violation History of Edw. C. Levy Co. and Subsidiaries at its Michigan Facilities		
Facility	**Date**	**Violation**
Ace - Saginaw Paving Co - Holly A1	12/12/2006	AQD_AIR - AQD - Air
Ace - Saginaw Paving Co - Holly A1	12/11/2007	AQD_AIR - AQD - Air
Ace - Saginaw Paving Co - Flint	01/09/2023	NPDES - Failure to Conduct Visual Assessments as Required
Ace - Saginaw Paving Co - Flint	01/09/2023	NPDES - Failure to Conduct Inspections as Required
Ace - Saginaw Paving Co - Plant 4 - Ubly S4	09/26/2012	AQD_AIR - AQD - Air
Ace - Saginaw Paving Co - Plant 9	07/21/2021	NPDES - Deficient SWPPP
Ace - Saginaw Paving Co - Plant 9	06/14/2023	AQD_AIR - AQD - Air
Ace - Saginaw Paving Co - Port Huron A4	10/11/2023	NPDES - Poor Housekeeping
Ace - Saginaw Paving Co - Saginaw	07/21/2021	NPDES - Deficient SWPPP

[7] Concerned Residents for South Dearborn v MI Dept. Environment, Great Lakes, and Energy, No. 373632 (MI Ct. App., Brief for Appellants filed May 27, 2025)

Ace - Saginaw Paving Co - Saginaw	07/22/2021	NPDES - Deficient SWPPP
Ace - Saginaw Paving Co - Sheridan Pit	06/23/2008	NPDES - WRD - NPDES
Ace - Saginaw Paving Co - Sheridan Pit	07/21/2008	NPDES - WRD - NPDES
Ace - Saginaw Paving Co - Sheridan Pit	06/05/2015	NPDES - WRD - NPDES
Ace - Saginaw Paving Co - Sheridan Pit	03/02/2016	NPDES - WRD - NPDES
Ace - Saginaw Paving Co - Sheridan Pit	07/28/2022	NPDES - WRD - NPDES
American Aggregates - Buno Plant	04/10/2017	NPDES - Poor Housekeeping
American Aggregates - Buno Plant	05/19/2017	NPDES - Compliance Schedule Not Received by Due Date - (Due: 05/15/2017)
American Aggregates - Grange Hall Road	04/26/2022	GROUNDWATER - Failure to Properly Maintain All Treatment, Control Facilities and/or Systems
American Aggregates - Ray Road	12/13/2011	NPDES - WRD - NPDES
Blue Water Aggregates	04/09/2024	NPDES - Failure to Implement SWPPP Requirements
Burroughs Materials-Docks	07/22/2021	NPDES - Failure to Conduct Visual Assessments as Required
Burroughs Materials-Docks	07/22/2021	NPDES - Deficient SWPPP
Cadillac - Clarkston	07/07/2016	AQD_AIR - Monitoring/Recordkeeping
Cadillac - Clarkston	09/28/2020	AQD_AIR - Process/Operational Restrictions
Cadillac - Dix - Detroit	09/28/2006	NPDES - WRD - NPDES
Cadillac - Gerken Materials	02/23/2021	AQD_AIR - Emission Limits
Cadillac - Gerken Materials	02/23/2021	AQD_AIR - Emission Limits
Cadillac - Rawsonville	11/07/2017	AQD_AIR - Monitoring/Recordkeeping
Cadillac - Rawsonville	11/07/2017	AQD_AIR - Monitoring/Recordkeeping
Cadillac - Rawsonville	08/21/2023	NPDES - Deficient SWPPP
Cadillac - Romulus	08/04/2023	NPDES - Deficient SWPPP
Cadillac - Wixom	7/26/2024	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Cadillac - Wixom	10/18/2024	AQD_AIR - Process/Operational Restrictions
Cadillac - Wixom	10/18/2024	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 1	12/02/2015	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 1	12/02/2015	AQD_AIR - Monitoring/Recordkeeping

Levy Plant 1	12/02/2015	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 2	01/10/2016	NPDES - Compliance Schedule Not Received by Due Date (Annual SWPPP Review Report - (Due: 01/10/2016)
Levy Plant 2	10/13/2021	NPDES - Deficient SWPPP
Levy Plant 3	01/10/2016	NPDES - Compliance Schedule Not Received by Due Date (Annual SWPPP Review Report - (Due: 01/10/2016)
Levy Plant 3	10/21/2016	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 3	10/21/2016	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 3	05/22/2019	NPDES - Deficient SWPPP
Levy Plant 3	08/17/2022	AQD_AIR - Testing/Sampling
Levy Plant 3	08/17/2022	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 3	08/17/2022	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 3	02/29/2024	NPDES - Storm Water Exposure
Levy Plant 6	10/28/2015	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	11/07/2015	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	12/08/2015	AQD_AIR - 2nd VN Notice
Levy Plant 6	03/13/2017	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	05/30/2017	AQD_AIR - 2nd VN Notice
Levy Plant 6	11/21/2018	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	07/16/2019	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	09/12/2019	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	11/19/2019	AQD_AIR - Emission Limits
Levy Plant 6	11/19/2019	AQD_AIR - Monitoring/Recordkeeping
Levy Plant 6	11/19/2019	AQD_AIR - Process/Operational Restrictions
Levy Plant 6	11/19/2019	AQD_AIR - Reporting
Levy Plant 6	11/19/2019	AQD_AIR - Reporting
Levy Plant 6	11/19/2019	AQD_AIR - Reporting
Levy Plant 6	11/19/2019	AQD_AIR - Process/Operational Restrictions
Levy Plant 6	12/21/2020	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	12/21/2020	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	12/21/2020	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	11/18/2021	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property

Levy Plant 6	06/02/2022	NPDES - Deficient SWPPP
Levy Plant 6	08/12/2022	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	10/13/2022	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	07/28/2023	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	07/31/2023	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	09/28/2023	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	10/06/2023	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	04/02/2024	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy Plant 6	06/21/2024	AQD_AIR - Unreasonable interference with the comfortable enjoyment of life and property
Levy-Brennan Street Dock	09/15/2023	NPDES - Storm Water Exposure
Levy-Penn Landfill	01/10/2016	NPDES - Compliance Schedule Not Received by Due Date (Annual SWPPP Review Report - (Due: 01/10/2016)
Levy-Penn Landfill	08/01/2023	NPDES - Records Retention
Specification Stone Products - Alpena	07/21/2016	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	07/21/2017	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	05/21/2018	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	07/21/2018	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	08/21/2018	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	10/21/2018	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	03/21/2019	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	04/21/2019	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	05/21/2020	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	12/21/2020	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	06/28/2021	NPDES - Improper Sampling Methods

Specification Stone Products - Alpena	08/21/2022	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	11/21/2022	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	04/17/2025	NPDES - Unpermitted Discharge
Specification Stone Products - Alpena	04/17/2025	NPDES - Inadequate Maintenance
Specification Stone Products - Alpena	04/17/2025	NPDES - Narrative Standard
Specification Stone Products - Alpena	04/21/2025	NPDES - DMR not submitted by due date
Specification Stone Products - Alpena	05/21/2025	NPDES - DMR not submitted by due date

C. Past Violations to Future Harm: Scientific Evidence Confirms Environmental Destruction from Mining Operations

Edw. C. Levy Co.'s violation history is not merely a record of past misconduct. This violation pattern transforms from historical fact to imminent threat when considered alongside the comprehensive body of peer-reviewed research demonstrating that gravel mining operations systematically degrade the precise environmental resources the company has repeatedly failed to protect. Where regulatory enforcement has proven insufficient to ensure compliance at existing facilities, Springfield Township cannot reasonably expect different outcomes from the same operator conducting the same inherently destructive activities.

1. Gravel Extraction Creates Direct Pathways for Permanent Groundwater Contamination

Extraction of gravel, by its very nature, inherently and profoundly alters landscapes and natural hydrologic systems. It does so by consuming, diverting, and polluting water resources, leaving a lasting environmental legacy. Independent scientific research conducted at sites across the United States demonstrate that gravel mining operations fundamentally alter groundwater systems, even without employing dewatering, primarily due to the disturbance of ecological systems and the direct and indirect introduction of pollutants into water resources.

In one peer-reviewed study, commissioned by the Kansas Legislature and conducted in collaboration with the U.S. Geological Survey and U.S. Bureau of Reclamation, the Kansas Geological Survey examined six sand and gravel pits to determine the impact of surface water infiltration on groundwater quality. The study found that gravel mining operations create direct pathways for contaminant transport into

groundwater systems.[8] The Kansas study demonstrated that "stormwater runoff containing contaminants enters ground water through the sand pits and impacts ground-water quality."[9] Researchers installed monitoring wells both upgradient and downgradient from the pits, enabling them to establish clear causal relationships between surface contamination and groundwater quality degradation. Twenty-one different pesticides and degradation compounds infiltrated groundwater through the exposed gravel pits, with contamination transport patterns clearly traceable to the mining operations. The study found that "concentrations of pesticides and degradates were usually higher in downgradient well waters than in upgradient well waters and were usually highest in the southeast well (in the general direction of ground-water flow)."[10]

Similarly, researchers in Hancock County, Maine, linked gravel mining to increased vulnerability of aquifers to contamination by chloride and nitrate.[11] Their study surmised that shorter flow paths created by mining activities increase the susceptibility of the aquifer to contamination as water can carry pollutants more directly into the aquifer without the natural filtration that longer flow paths provide. Gravel mines facilitate this by imposing changes to the land surface affecting how water flows and recharges the aquifer. This alteration can create depressions that redirect water flow, increasing the aquifer's vulnerability to contamination. At the same time, the removal of the organic soil layer diminishes the soil's ability to filter out pollutants, making it easier for contaminants to reach the aquifer.

Summary of Key Environmental Impacts of Gravel Mining on Water Resources

Water Resource	Primary Impact Category	Key Effects
Groundwater	Quantity Reduction	Lowered water tables, reduced drinking water availability, drying of wells, land subsidence.
	Quality Degradation	Increased turbidity, chemical contamination, altered temperature, intermixing of aquifers.

[8] Donald Whittemore, *Stormwater Runoff into Sand Pits—Effects on Ground-Water Quality*, Kan. Geological Survey, Pub. Info. Circular No. 29 (Aug. 2009), https://www.kgs.ku.edu/Publications/PIC/pic29.html.
[9] Whittemore, Stormwater Runoff into Sand Pits (2009)
[10] Id.
[11] J.M. Peckenham et al., Sand and Gravel Mining: Effects on Ground Water Resources in Hancock County, Maine, USA, 56 *Envtl. Geol.* 1103 (2009), https://doi.org/10.1007/s00254-008-1210-7.

Waterways	Hydrological Alteration	Channel incision, bed degradation, bank erosion, altered flow patterns, "hungry water" effects.
(Rivers, Streams, Lakes)	Quality Degradation	Increased turbidity, suspended solids, chemical pollution, thermal changes, potential acid mine drainage.
	Habitat & Biota Loss	Destruction of spawning/rearing habitats, food web disruption, species shifts, migration blockages.
Wetlands	Habitat Destruction	Direct removal of vegetation, fragmentation, disruption of natural habitats.
	Hydrological Alteration	Altered water regimes, reduced wetted periods, interruption of natural recharge.
	Biodiversity Loss	Displacement of native species, disruption of ecosystem processes, introduction of invasive species.

2. Documented Air Quality Degradation and Hazardous Noise Levels Threaten Public Health

Gravel mining and gravel pits significantly impact air quality, primarily through the emission of particulate matter and other pollutants. Mineralogical and geochemical analysis of dust from sand and gravel quarries has revealed that a substantial portion of airborne particles are respirable, posing potential health risks.[12] These activities contribute to elevated levels of suspended particulate matter, including PM10 and PM2.5.[13]

At the same time, significant environmental and public health risks are associated with the increase in heavy vehicle traffic. The increased presence of these massive

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[12] Menhaje-Bena et al., Airborne dust particles originated from sand and gravel quarries (2023) https://doi.org/10.21203/rs.3.rs-3148651/v1.

[13] *See* Nagaraja et al., Environmental Impact Assessment of Air Quality Issues Caused by the Granite Quarrying and Stone Processing Industry in Ramanagara District, Karnataka State, India. 24 *Nature Environment and Pollution Technology* 41. (2025) https://doi.org/10.46488/nept.2024.v24is1.003; C.-T. Chang et al., Fugitive Dust Emission Source Profiles and Assessment of Selected Control Strategies for Particulate Matter at Gravel Processing Sites in Taiwan. 60 *Journal of The Air & Waste Management Association* 1262 (2010), https://doi.org/10.3155/1047-3289.60.10.1262.

laden vehicles leads to a considerable increase in harmful pollutants such as NO2, PM2.5 and PM10 that exacerbate health risks for residents, particularly children.[14]

Noise pollution from gravel operations consistently exceeds safe thresholds. A substantial portion of miners are exposed to noise levels that exceed recommended safety limits, often leading to hearing loss and other health issues. One study found that a significant number of sand and gravel miners are exposed to noise levels exceeding the recommended limits.[15] Specifically, 69% of workers had noise exposures above the NIOSH recommended exposure limit, and 41% exceeded the MSHA action level for hearing conservation program enrollment. Hearing impairment was prevalent among the miners, with 37% of the subjects showing signs of hearing loss as defined by NIOSH criteria.

Mine dust pollution is considered a major threat to surface vegetation and landscapes, including agriculture.[16] When dust settles on the leaves of trees, it "suffocates" them, making them increasingly less productive and less healthy. The dust particles physically obstruct the leaves' stomata—the tiny openings crucial for gas exchange—thereby hindering vital physiological processes such as photosynthesis, light interception, nutrient availability, and gas-energy exchange.[17] This directly reduces the plant's ability to capture carbon dioxide and release oxygen, leading to a measurable reduction in carbon uptake and transpiration. Beyond vegetation, mine dust can also contaminate surrounding rivers, farmlands, and crops, posing risks to domestic water and food security.

3. Scientific Evidence Establishes Mining's Permanent Ecological Impacts

The proposed 238-acre mining operation would inflict irreversible ecological damage to a landscape where environmental recovery consistently fails to achieve restoration to reference conditions. Scientific evidence demonstrates that mining activities fundamentally alter ecosystem structure and function in ways that persist indefinitely, making any claimed restoration inadequate protection against the very serious consequences.

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[14] Reza Ziarati et al., The Impact of Quarrying Activities on Air Quality and Public Health: A Case Study in Warwickshire. *Science Journal of Public Health*, *12*(6), 212 (2024), https://doi.org/10.11648/j.sjph.20241206.15.

[15] Deborah Landen et al., Noise exposure and hearing loss among sand and gravel miners. 1(8) J. Occup. Env't Hyg. 532 (2004), https://doi.org/10.1080/15459620490476503.

[16] Haoxuan Yu et al.. Environmental hazards posed by mine dust, and monitoring method of mine dust pollution using remote sensing technologies: An overview, *Sci. Total Env't* 864, 161135 (2023), https://doi.org/10.1016/j.scitotenv.2022.161135.

[17] A. K. Ranjan et al., A new approach for prediction of foliar dust in a coal mining region and its impacts on vegetation physiological processes using multi-source satellite data sets. 129 *Journal of Geophysical Research: Biogeosciences* (2024), https://doi.org/10.1029/2024JG008298.

Gravel mining causes severe habitat destruction with restoration success rates that never achieve full ecological recovery. Scientific studies demonstrate that restored mining sites remain thirteen percent below reference ecosystem biodiversity levels even after extensive rehabilitation efforts.[18] The temporal dimension of restoration failure proves particularly significant for regulatory analysis. Even assuming restoration efforts achieve their maximum potential effectiveness, a generous assumption contradicted by scientific evidence, the ecological functions lost during active mining operations remain permanently eliminated. For wetland-dependent species with limited mobility and specific habitat requirements, temporary habitat destruction equates to permanent population loss.

The proposed mining operation would eliminate wetland habitat precisely when such resources have become most scarce and ecologically valuable. Michigan's wetland resources represent critical infrastructure for statewide biodiversity conservation. The state's remaining 5.5 million acres of wetlands constitute only half the wetlands that existed prior to European settlement, making each remaining wetland acre increasingly valuable for ecosystem stability. “While state wetland regulations have helped to slow the destruction of wetlands in Michigan from a quantitative perspective, watershed related wetland studies completed around the State have consistently shown a decrease in wetland function and overall quality for the wetlands that remain.”[19]

Within this context, forty-one of Michigan's listed threatened and endangered animal species depend directly on wetland habitats, while forty-nine percent of the state's rare plant species require wetland conditions for survival. The loss of these ecosystems not only diminishes biodiversity but also disrupts the ecological processes that sustain various life forms, leading to cascading effects throughout the food web.[20]

The applicant's designation of 184 acres as "preservation areas" provides no meaningful offset for the ecological destruction within the 238-acre mining footprint. These preservation areas consist primarily of existing wetlands that already provide established ecosystem services to the regional environment. Maintaining existing ecological functions cannot compensate for the active elimination of additional functional wetland systems.

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[18] Joe Atkinson et al., Terrestrial ecosystem restoration increases biodiversity and reduces its variability, but not to reference levels: A global meta-analysis, 25(7) Ecol Lett. 1725 (2022), https://doi.org/10.1111/ele.14025.

[19] Michigan Department of Environmental Quality, Status and Trends of Michigan’s Wetlands: Pre-European Settlement to 2005 (2014).

[20] A. Brautigam, *The freshwater biodiversity crisis. 2*, 4–5 (1999), https://pubmed.ncbi.nlm.nih.gov/12349584/.

Moreover, preservation areas adjacent to active mining operations experience significant degradation through edge effects, dust deposition, hydrological alteration, and noise disturbance. Scientific research documents substantial ecosystem degradation extending well beyond the direct footprint of mining activities, meaning that even the designated preservation areas would suffer measurable ecological impairment.[21]

Wetlands deliver quantifiable ecosystem services that mining operations cannot replicate through engineered alternatives. These natural systems provide critical water quality enhancement through filtration processes that remove pollutants and excess nutrients from water systems, particularly vital in areas where agricultural runoff threatens water quality.[22] The destruction of wetland filtering capacity within the mining area would permanently compromise water quality protection for downstream communities. They also contribute significantly to local economies through services such as water supply and recreational opportunities, underscoring their value beyond ecological functions.[23]

Wetlands also serve as vital buffers against climate change, acting as carbon sinks that mitigate greenhouse gas emissions.[24] The preservation of these ecosystems is not merely an environmental issue but a critical component of climate resilience strategies, as they provide essential services that help communities adapt to changing conditions, such as increased flooding and droughts. Furthermore, the degradation of wetlands can lead to substantial losses in these services, emphasizing the need for informed decision-making that considers the full spectrum of benefits wetlands offer, including their role in flood regulation and climate adaptation.[25,26]

The economic valuation of wetlands often underrepresents their true worth, as many of the ecosystem services they provide are not captured in traditional market frameworks. For instance, wetlands are instrumental in regulating local climates and enhancing resilience to natural disasters, which can save communities significant costs in disaster recovery and infrastructure repair.[27] Furthermore, the

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[21] See ex. Haoxuan Yu et al.. Environmental hazards posed by mine dust, and monitoring method of mine dust pollution using remote sensing technologies: An overview, *Sci. Total Env't* 864, 161135 (2023), https://doi.org/10.1016/j.scitotenv.2022.161135.
[22] Dolf de Groot et al., Wetland Ecosystem Services, in *Encyclopedia of Ecology* (2018), https://doi.org/10.1007/978-90-481-9659-3_66.
[23] Alexandra Dehnhardt et al., Valuation of Wetlands Preservation (2019), https://doi.org/10.1093/acrefore/9780199389414.013.457.
[24] A.J. Stewart et al., Revealing the hidden carbon in forested wetland soils. *Nat Commun* 15, 726 (2024). https://doi.org/10.1038/s41467-024-44888-x
[25] Dehnhardt et al., (2019).
[26] Arunima Nayak et al., *Wetland Ecosystems and Their Relevance to the Environment* (2022), https://doi.org/10.4018/978-1-7998-9498-8.ch001.
[27] Dehnhardt et al., (2019).

recreational potential of wetlands—ranging from birdwatching to fishing—serves not only to enrich local culture but also to attract tourism, thereby generating income for surrounding areas.[28]

The permanent destruction of wetland ecosystems, irreversible biodiversity loss, and elimination of critical ecosystem services satisfy every criterion for denying the mining permit based on ecological impacts alone.

D. Property Values Suffer Permanent and Substantial Losses Near Gravel Operations

The applicant has failed to rebut overwhelming economic evidence that gravel operations cause catastrophic and permanent property value destruction. The presence of gravel mines creates an environment that deters potential buyers and investors from considering properties in the area, thereby perpetuating a cycle of devaluation and disinvestment.

In a 2016 report assessing the economic impact of a proposed gravel mine in Richland Township, MI, researchers estimated that properties within three miles of the project were likely to experience a marked reduction in value, with a half-mile distance leading to an estimated 20 percent decline, one mile to about 14.5 percent, two miles to roughly an 8.9 percent reduction, and three miles to nearly a 4.9 percent drop in value.[29] Through a simulation study focusing on Richland Village and Richland Township, researchers found that more than 1,400 homes would be adversely affected by the proposed mine, leading to an estimated total loss in property value of approximately $31.5 million.

A study of 2,812 properties in Delaware County, Ohio further highlights the tangible economic implications for residents.[30] The analysis found that homes situated within half a mile of an operational gravel pit experienced an average loss of value of 36% when compared to those between 0.5 to 5 miles away. The value of homes within 1.5 miles of the gravel pit were 25% lower than those between 1.5 to 5 miles away. These property value impacts are permanent and persist over time, with uncertainty about future development creating additional downward pressure on real estate values.

The decrease in property values is not just a monetary loss to homeowners. It represents the deterioration in the quality of life for those living near the mine. In

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[28] D.W. Marcouiller et al, The Regional Supply of Outdoor Recreation Resources..., 27(4) *J. Park & Recreation Admin.* (2009), https://js.sagamorepub.com/jpra/article/view/1274.
[29] George A. Erickcek, An Assessment of the Economic Impact of the Proposed Stoneco Gravel Mine Operation on Richland Township (2006), https://research.upjohn.org/reports/222.
[30] Diane Hite, Summary of Analysis: Impact of an Operational Gravel Pit on House Values in Delaware County, Ohio (2006).

simple terms, as houses lose value, this loss indicates that the local environment and neighborhood are less desirable due to the mine's negative impacts. A sustained decline in property values in areas adjacent to gravel mines may lead to reduced tax revenues for local governments, subsequently impacting public services such as education and infrastructure maintenance. Additionally, as residents become disillusioned with their living conditions, there may be an increase in out-migration, further exacerbating economic challenges in these regions. This phenomenon is particularly significant in rural areas, where economic development often hinges on maintaining a stable and engaged population.[31]

These economic impacts constitute "very serious consequences" that the applicant cannot rebut through unsupported assertions of economic benefit. The law permits consideration of impacts "on property values in the vicinity," and the evidence establishes devastating and permanent harm.

IV. Township Possesses Clear Constitutional Authority for Superior Economic Use Through Eminent Domain

The township possesses clear constitutional authority to acquire the subject property through eminent domain for wetland restoration purposes. The Fifth Amendment's Takings Clause, applied to local governments through the Fourteenth Amendment, permits condemnation when two essential elements converge: the taking serves public use and just compensation is provided.

Law in the United States has long recognized both the legality and necessity for governments to pursue condemnation for environmental purposes, recognizing that ecological preservation constitutes a fundamental public benefit transcending individual property interests.[32] One of the earliest such examples can be found in an 1888 federal statute authorizing the then-Secretary of War to condemn land or public buildings for the maintaining and improvement of rivers and harbors.[33] Wetland restoration unquestionably satisfies the public use requirement under both traditional and modern interpretations. The Supreme Court's decision in *Kelo v. City of New London* (2005) expanded public use to encompass public purpose. More fundamentally, wetland restoration serves multiple established public purposes: flood control, water quality protection, habitat preservation, and climate resilience, each independently sufficient to justify eminent domain action.

Economic analysis demonstrates that preserving property for wetland ecosystem services and recreational development generates superior long-term economic

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[31] Miranda N. Smith et al., *How Migration Impacts Rural America*, Univ. of Wis. Madison (2016).
[32] Silver Creek Drain Dist. v. Extrusions Div., Inc., 468 Mich. 367, 663 N.W.2d 436 (2003).
[33] Act of Apr. 24, 1888, ch. 194, 25 Stat. 94.

returns compared to extractive use.[34] The economic value of the ecosystem services provided by wetlands is substantial. Nationwide, the cumulative ecosystem services value derived from wetlands can range from $5,000 to $70,000 per acre per year.[35] The traditional perception of wetlands as unproductive or challenging land is therefore fundamentally flawed; they are, in fact, critical natural infrastructure that provides quantifiable economic benefits far beyond their direct ecological value. This means that investing in wetland preservation and expansion is not merely an environmental expenditure but a strategic economic investment that enhances community resilience, reduces future costs, and creates new revenue streams, positioning wetlands as vital economic infrastructure.

Wetland mitigation banking represents a significant opportunity for direct revenue generation. This concept involves the restoration or creation of wetlands in advance of authorized impacts, leading to the generation of "credits" that can be sold to entities—such as businesses, landowners, or public agencies—that are required to offset unavoidable wetland losses resulting from their development projects.[36] The revenue potential from wetland mitigation banking is substantial. Commercial wetland mitigation credits in Michigan typically range from $100,000 to $150,000 per acre-credit.[37]

Developing the property into an eco-tourism and outdoor recreation hub offers significant economic benefits through visitor spending, job creation, and increased property values. The property's existing wetlands are prime locations for activities such as birdwatching, general wildlife viewing, and non-motorized boating. Restored or constructed wetlands on the remaining acreage can be designed with aesthetic enhancements like walking paths, gazebos, and bird houses to further boost visitor appeal.

Public ownership ensures open access to diverse recreational activities, promoting physical activity and mental well-being for residents. Developing a comprehensive multi-use trail system across the property can connect various natural features and provide year-round recreational opportunities. Trails provide low-cost recreation infrastructure and encourage healthier lifestyles, leading to reduced healthcare costs. Studies suggest that a one-dollar investment in trails can lead to approximately three dollars in medical savings per person. [38]

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[34] Restore America's Estuaries, Jobs and Dollars: Big Returns from Coastal Habitat Restoration (2025); see also Restore America's Estuaries, The Economic Value of America's Estuaries (2021).
[35] Naveen Adusumilli, Valuation of Ecosystem Services from Wetlands Mitigation in the United States. 4 *Land* 182 (2015), https://doi.org/10.3390/land4010182.
[36] Mich. Admin. Code r. 281.951–961.
[37] Michigan Wetland Board, www.miwb.org.
[38] Bob Wilson & Anna Lee, Trail Building Law and Policy: A Michigan Manual (2024).

The aesthetic and recreational enhancements from eco-tourism development directly translate into increased property values for adjacent and nearby homes. This generates significant wealth for residents and increases the local tax base, representing a powerful indirect economic benefit. The increase in property values directly benefits homeowners through increased equity and wealth, and the municipality through increased property tax revenue. Higher property values also make the area more attractive for new residents and businesses. The aesthetic and recreational amenities of an eco-tourism hub create a positive feedback loop: attractive natural spaces lead to higher property values, which in turn generate more tax revenue for the municipality, allowing for further investment in public services and amenities, enhancing the overall economic vitality and quality of life for residents.

The diverse job opportunities created by these land uses, particularly those accessible without advanced degrees, directly address the human capital needs of rural Michigan. This fosters local skill development, helps retain residents, and builds a more resilient community workforce. These job opportunities provide direct income to residents and contribute to local spending. More importantly, they offer career pathways within the rural community, preventing out-migration and building local expertise. This focus on accessible job creation transforms the land project into a powerful tool for rural workforce development and community retention. It means "profitability" is not just about municipal revenue but about the sustained economic vitality and social fabric of the community, making it a more attractive place to live and work for future generations.

V. Conclusion

Edw. C. Levy Co. cannot establish genuine market need when its claims rest on demonstrably corrupted state analysis orchestrated by its own executive leadership. The company cannot prove that no very serious consequences would result when peer-reviewed scientific research establishes that gravel mining operations systematically contaminate groundwater, destroy irreplaceable wetland ecosystems, and cause permanent property value losses exceeding $31 million in comparable communities. Most fundamentally, an operator with seventeen citations for "unreasonable interference with the comfortable enjoyment of life and property" at a single facility cannot credibly claim it will operate without causing very serious consequences to Springfield Township residents.

Where state regulators have abdicated their responsibility to consider operator compliance history, this Commission serves as the final guardian of community welfare. The choice transcends a single permit application—it represents whether

local communities retain meaningful authority to protect their residents from industrial operators with documented patterns of environmental destruction.

Thank you in advance for your consideration and please feel free to reach out if we can provide you with any additional information.

/s/Andrew Bashi

Andrew Bashi (P84433)

GREAT LAKES ENVIRONMENTAL LAW CENTER

4444 Second Avenue

Detroit, MI 48201

(313) 782-3372

andrew.bashi@glelc.org