SB 431 Aggregate Mining Environmental Impact

Environmental Impact Overview
Aggregate resource extraction is known to release harmful sediments, including salts and other chemicals into watercourses, groundwater sources, soil and air, often from erosion. Aggregate mining destroys farmland and local natural areas through the clearing of soil, trees, shrubs and other foliage from the land. In addition to water and habitat impacts, aggregate mining creates noise, dust, and has negative impacts on local road conditions. The negative visual and acoustic aesthetics associated with this industrial activity has been proven to decrease property values.

Drinking Water Protection
Gravel mining opens pathways of exposure for groundwater contamination
Public and private drinking water sources utilizing wells become more vulnerable when aggregate mining strips away the sand, gravel, and clay deposits that filter and seal groundwater aquifers from surface contamination. Once these layers are removed, the aquifer becomes vulnerable to contaminants such as fuel oil, and runoff containing fertilizers, pesticides, herbicides and other pollution. Lakes under 5 acres do not undergo water quality reviews unless they connect to another body of water via the surface or a shallow aquifer; this represents a direct pathway of exposure.

Gravel mining can interrupt ground and surface water flow
Aggregate mining on or near floodplains, rivers, and other bodies of water can alter the direction of water flow and the groundwater pressure gradient, disrupting surface and subsurface water flow. In addition to the physical mining site, surface and groundwater withdrawals for the mining activity face no scrutiny other than around the quantity of the withdrawal unless it is used as part of the industrial processing at the mine.

Air Quality and Environmental Justice Concerns
Pollution from particulate matters such as silica dust and diesel exhaust are both dangerous carcinogenic airborne pollutants that result from aggregate mining. The industry is exempt from the requirement to monitor airborne silica leaving the mine site. Industrial truck traffic, diesel emissions, and fugitive dust both from the trucks transporting the materials and the site themselves post a risk to immediately adjacent neighborhoods. Areas with existing air quality issues are particularly vulnerable as the impacts of air pollution act cumulatively. Understanding this issue, the city of Dearborn just passed an ordinance limiting “fugitive dust” airborne debris from industrial sites and truck hauling.
Aggregate Mining Destroys Natural Areas
Michiganders cherish their greenspaces: parks, farmland, trails and greenways, etc. These special places are so important for some that local governments have purchased development rights (PDR) on neighboring farmland, taxed themselves to purchase greenspace around their communities, and spent millions to preserve local natural areas. Damaged natural landscapes result in the introduction of invasive plant species and noxious weeds, which have negative consequences for nearby vegetated areas including riparian zones.

More Frequent and More Extreme Weather Demands More Resilient Road Construction
Michigan roads and bridges need to be improved, but we need to do a lot better preparing for climate change, which promises roller coaster temperatures, a brutal freeze-thaw cycle, and more intense, more frequent precipitation events. A balanced bill, in the public interest, would encourage the reduction, reuse, and recycling of aggregate materials. It would also generate research and foster the transition to more resilient, non-virgin material road construction. Finally, it would carefully consider and compel the reclamation of past and future aggregate mine sites.

Aggregate Mining Harms Property Values
Mine operation puts downward pressure on property values in surrounding neighbourhoods, often for years to decades. This impact can be reversed if a high-quality reclamation project is implemented upon completion of the project, but the legislation offers no enforcement mechanisms to ensure robust reclamation. Moreover, economists suggest that in consideration of the social costs of mining borne by the adjacent community, it may be more cost effective to just move the mine away.

Strong Coalition Opposition

Conclusion
This is an unbalanced, unnecessary bill written by industry that will negatively impact Michigan quality of life. The bill doesn't allow for local review if project developers submit the required paperwork, and there is significant dispute about how many decades of materials Michigan already has in reserve. Aggregate mines damage the land, disturb communities, and simply don't belong everywhere.