



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
KALAMAZOO DISTRICT OFFICE



RICK SNYDER

GOVERNOR

C. HEIDI GREYER

DIRECTOR

August 15, 2017

CERTIFIED MAIL

Mr. Jerry Donley, Chairman
Indian Lake Improvement Association
33153 Lakeview Avenue
Dowagiac, Michigan 49047

Dear Mr. Donley:

SUBJECT: Permit Application Denial
Submission Number: 2K4-A2PD-0SYP
Silver Creek Township, Cass County

This letter is to notify you that your application for permit submitted under the authority of Part 301, Inland Lakes and Streams, and Part 303, Wetlands Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); and Part 13, Permits, of the NREPA, is hereby denied. The application was received by the Department of Environmental Quality's (DEQ), Water Resources Division (WRD), on October 6, 2016.

The purpose of the project, as described in your application, is to reduce sedimentation and nutrient pollution from entering Indian Lake via the Mann Drain.

After due consideration of the permit application, site conditions, and other pertinent materials, your application for permit is denied for the following reason: The proposed project will have significant adverse effects on the natural resources associated with the Mann Drain, its contiguous wetlands, and Indian Lake.

Aquatic Organisms

- The obstruction of the natural flow of the streams will likely increase water temperature and thus decrease dissolved oxygen behind the filtration structures and downstream. These physical changes will have an impact on the macroinvertebrate and fish community assemblage.
- The addition of material directly to the stream bed is of concern as it is covering the natural habitat and limiting its use by fish and invertebrates.

- Nutrizorb and zeolites are proposed for use to reduce nutrient loading by absorption of phosphorus, ammonia and nitrogen. Nutrizorb and zeolites may adsorb other anions and cations (e.g., iron, magnesium) that may be essential to aquatic life.
- The addition of Nutrizorb material directly to the stream bed is of concern because the product contains aluminum silicates which may be a toxicity concern for aquatic organisms.

Channel Impacts

- The nutrient barrier filtration sock structures (barriers) will obstruct the natural flow of water and disrupt sediment transport within the channel. The existing and proposed barriers will slow water velocities and cause sediment to drop out of the water column upstream of the barriers. These barriers are essentially acting as dams within the stream channel.
- This accumulated sediment may cover important instream habitat features such as riffles, pools, and substrates that are essential to fish and aquatic macroinvertebrates. This reduces the habitat available for fish spawning, which was already listed as limited for Northern Pike according to the 2015 Department of Natural Resources (DNR) Status of the Fisheries Resource Report for Indian Lake.
- Accumulated sediments can have a direct effect on aquatic macroinvertebrates or fish eggs that may be present in the substrate by depriving them of oxygen.
- The barriers also promote the need to dredge or “clean out” the channel upstream of the structure due to the accumulated sediment, further disturbing the channel bottom and any habitat present.
- As can be seen from photographs of the currently installed barriers, there is emergent wetland vegetation that has established within the stream channel directly upstream of the barriers. This demonstrates an undesirable change from a free-flowing stream type ecosystem to a relatively still-water pond or wetland type ecosystem within the stream channel, which is a direct result of the installation of these barrier structures and is an adverse environmental impact to the stream resource.
- Location of these structures upstream of the Lakeview Avenue road crossing is a concern due to the potential for movement of the components of these structures especially during flood events. DEQ is concerned that the components of the structures (filter socks and nutrient barrier curtains) may become dislodged and carried downstream with the potential to obstruct the opening of the culvert under Lakeview Avenue. If this occurs, it could result in excessive stream bank erosion in the area of the culvert, and/or possible flooding and damage to the road.

- A further concern is that, should these barriers become dislodged during a flood event, the accumulated sediment and granular Nutrizorb material stored behind these barriers would flush downstream, potentially blanketing downstream substrate and habitat, and ultimately ending up in Indian Lake. This could result in a significant volume of sediment, and phosphorus, entering the lake during a single flood event. This may result in significantly different impacts to the lake than this same volume of sediment entering the lake over a longer time period.

Fish and Aquatic Organism Passage

- The nutrient barrier filtration sock structures (barriers) obstruct the natural flow of water and create a series of impediments, if not a series of complete barriers, to movement of fish and other aquatic organisms within the stream channel. DNR Fisheries has voiced concern over barriers in place during the March-April Northern Pike spawning season. These barriers would prevent Northern Pike from reaching important spawning habitats. DEQ is also concerned about the negative impacts, resulting from the placement of these barriers, to non-game fish species and other aquatic organisms from restricted movement within Mann Drain and its tributary, and between these waterbodies and Indian Lake during other time periods as well.

Pursuant to Section 30106 of Part 301, of the NREPA, the DEQ shall not grant a permit if the proposed project or structure will unlawfully impair or destroy any waters or other natural resources of the state. As described above, there are several instances where significant impairment and/or destruction of natural resources is possible.

We recommend the immediate manual removal of the all of unauthorized material placed below the Ordinary High Water Mark of Mann Drain. The material shall be disposed on upland. Please submit written documentation of the removal. Failure to complete the removal may result in further enforcement action.

You have the right to appeal this denial by filing a petition for a formal administrative hearing. To preserve your right to an administrative hearing, a petition or written request must be filed with the Michigan Administrative Hearing System (MAHS) within 60 days from the date of this denial letter. To request a hearing, submit the necessary document to: Michigan Administrative Hearing System, P.O. Box 30695, Lansing, Michigan 48909.

During the administrative hearing process, the MAHS provides the parties an opportunity to meet informally to attempt to resolve the matter. If a resolution is not reached during informal discussions and the case is not dismissed for other reasons, an administrative hearing will be scheduled. The MAHS will conduct the hearing and submit a Proposal for Decision to the director of the DEQ. The director then makes the final DEQ decision regarding the application.

Mr. Jerry Donley, Chairman

Page 4

August 15, 2017

If you would like to discuss project alternatives and/or plan modifications prior to filing a Petition for Contested Case, please contact me. Our discussions may continue during the informal review process after a Petition for Contested Case is filed, but your formal appeal must be filed within the 60-day deadline.

If you have any questions regarding this matter, please contact me at: 269-567-3566; via e-mail at: poynterL@michigan.gov; or DEQ, WRD, Kalamazoo District Office, 7953 Adobe Road, Kalamazoo, Michigan 49009-5025. Please ensure to refer to submission number "2K4-A2PD-0SYP" in any correspondence.

Sincerely,



Larry Poynter
Senior Environmental Quality Analyst
Kalamazoo District Office
Water Resources Division

LP:KJ:se

cc: Mr. John Tucci, Lake Savers, LLC
Silver Creek Township Clerk
Cass County Clerk
Cass County Drain Commissioner
Cass County CEA
Mr. Brian Gunderman, DNR Fisheries Division, Plainwell OSC
Mr. Jerrod Sanders, DEQ
Mrs. Bethany Matousak, DEQ