2022 IR Assessment Methodology Comments Received:

(*via electronic mail 3/15/2021*)

March 15, 2021

Michigan Department of Environment, Great Lakes, and Energy
Water Resources Division
P.O. Box 30458 Lansing, MI 48909-7958
GoodwinK@michigan.gov

Re: Comments on Draft 2022 Integrated Report Assessment Methodology

Dear Mr. Goodwin,
On behalf of the Huron River Watershed Council, National Wildlife Federation, and Need Our Water, we thank you for the opportunity to submit these comments concerning Michigan's draft 2022 Integrated Report Assessment Methodology. As set forth below, we believe that EGLE should revise the methodology to allow for the consideration of existing data on foam containing per- and polyfluoroalkyl substances ("PFASs") when the agency assesses designated use support for surface waters of the state. We also believe that in addition to formally listing surface waters as impaired due to PFAS-containing foam (hereafter "PFAS foam") where appropriate, EGLE should report on all instances of foam containing PFASs in the Integrated Report in accordance with section 305(b) of the Clean Water Act.

Background
In Michigan, foam containing extraordinarily high concentrations of PFASs has been found in lakes and streams across the state. For example, for years, residents of Oscoda have noticed large amounts of sticky, suspicious foam on the surface of Van Etten Lake and other bodies of water near the former Wurtsmith Air Force Base – an area known to be contaminated by PFASs. In the summer of 2017, testing of foam collected from Van Etten Lake showed that the foam was laden with PFASs, primarily perfluorooctanesulfonic acid ("PFOS"). The Air Force's and the State's sampling results showed that the foam contained concentrations up to nearly 165,000 parts per trillion ("ppt") of total PFAS. *Van Etten Lake*, MICHIGAN.GOV, Michigan.gov/pfasresponse/investigations/lakes-and-streams/foam/results (last visited Mar. 4, 2021). A month after receiving those disturbing sampling results, the Michigan Department of Health and Human Services ("MDHHS") issued an advisory cautioning residents against swallowing foam from Van Etten Lake. Later, MDHHS warned people across the state, and in Oscoda specifically, to avoid contact with foam on lakes and rivers impacted by PFAS contamination. *See* Letter from Abiy Mussa, Toxicologist, MDHHS, to Denise Bryan, Health Officer, Dist. Health Dep't #2, at 3–4 (May 21, 2019), Michigan.gov/pfasresponse/-/media/Project/Websites/PFAS-Response/Investigations/Iosco-County/Wurtsmith/Letter-2019-05-21-MDHHS-DHD2.pdf; *PFAS Foam on Lakes and Streams*, MICHIGAN.GOV, Michigan.gov/pfasresponse/faq/categories/pfas-foam-on-lakes-and-streams (last visited Mar. 15, 2021).

Although PFAS foam may sometimes be only fleeting, its persistent recurrence on surface waters has disrupted the lives of many. In particular, the foam has forced many Michiganders, including Oscoda residents, to choose between swimming and risking their health. Given the highly

concentrated nature of PFAS foam, accidental ingestion of the foam while swimming poses a major exposure risk, and dermal contact with the foam may also carry risks. Consequently, due to the challenge and stress of avoiding contact with PFAS foam, some people, including members of Need Our Water and their families, have chosen to refrain entirely from swimming in Van Etten Lake and other nearby lakes.

Moreover, PFAS foam may threaten wildlife. For instance, at Van Etten Lake, observers have reported witnessing waterfowl swimming in and around tainted foam, sometimes attempting to clean off foam that had stuck to their bodies. If such contact with PFAS foam occurs, it is almost certain to result in significant exposure. To our knowledge, most studies examining PFAS uptake by wildlife have not involved PFAS foam. A recent laboratory study aiming to mimic field conditions of aqueous film forming foam reported associations between compounds in the PFAS mixture and changes in neurotransmitters in the brains of leopard frogs (Foguth et al. 2020. Neurotoxicology and Teratology, 81, 106907).

Argument

The federal Clean Water Act requires that states establish water quality standards for water bodies, consisting of three components: (1) designated uses, (2) water quality criteria designed to protect those designated uses, and (3) an antidegradation policy. 33 U.S.C. §§ 1313(c)(2)(A), (d)(2). Water quality criteria may be expressed as numeric values or narrative statements, representing a quality of water that supports a particular designated use. 40 C.F.R. § 131.11(b). States must establish narrative water quality criteria where numeric criteria cannot be established or to supplement numeric criteria. 40 C.F.R. § 131.11(b)(2).

The presence of PFAS foam in surface waters may impair Michigan's water quality standards. All surface waters in Michigan are required to support (1) indigenous aquatic life and wildlife, and (2) total body contact recreation from May 1 to October 31.[1] MICH. ADMIN. CODE r. 323.1100(1)(e), (2); *see also id.* r. 323.1044(x) (defining total body contact recreation as "any activities normally involving direct contact with water to the point of complete submergence, particularly immersion of the head, *with considerable risk of ingesting water*, including swimming") (emphasis added). Furthermore, Michigan's narrative criteria specifically impose limitations on the amount of foam that may be present in surface waters of the state. *Id.* r. 323.1050 (prohibiting foam "in unnatural quantities which are or may become injurious to any designated use"). Thus, in cases where the incidence or concentration of PFAS foam might threaten indigenous wildlife or impair people's ability to swim due to the risk of accidental ingestion, the presence of foam might indicate that a lake or stream segment is failing to support either or both of those designated uses.

EGLE must consider data and information concerning PFAS foam when assessing whether lakes and streams meet Michigan's water quality standards because such data and information are relevant

1 The Part 4 rules provide that "[a]ll surface waters of the state are designated and protected for total body contact recreation from May 1 to October 31 in accordance with the provisions of R 323.1062." MICH. ADMIN. CODE r. 323.1100(2). While the focus of Rule 323.1062 is on microorganisms such as *E. coli*, in practice, EGLE more broadly assesses support for the total body contact recreation designated use. Specifically, the agency considers pH as well as *E. coli* data. EGLE, Public Comment Draft of 2022 Integrated Report Chapter 3 Assessment Methodology, at 19. This demonstrates that EGLE has determined that it has considerable flexibility in assessing support for the total body contact recreation designated use.

to water quality. Under section 303(d) of the Clean Water Act, states must identify waters for which a water quality standard – including narrative criteria that protect designated uses – has not been met. 33 U.S.C. § 1313(d). While the Clean Water Act affords states discretion to determine whether a water body meets water quality standards, U.S. EPA regulations require states to evaluate "*all* existing and readily available water quality-related data and information" in developing their 303(d) lists. 40 C.F.R. § 130.7(b)(5) (emphasis added). In Michigan, data and information concerning PFAS foam – including foam advisories issued by MDHHS and sampling of PFAS concentrations in foam taken from numerous lakes and streams – exist and are readily available. *See, e.g., Surface Water and Foam Results*, DATA.MICHIGAN.GOV, (The link provided was broken and has been removed) (last visited Mar. 3, 2021). Furthermore, PFAS foam data and information may serve as an indicator of water quality. As explained above, information regarding the incidence or concentration of PFAS foam is germane to Michigan's narrative water quality criterion concerning foam, and may suggest that a lake or stream segment is failing to support indigenous aquatic life and wildlife or total body contact recreation.

Therefore, we recommend the following actions:

(1) EGLE should consider data concerning PFAS foam when assessing designated use support. Such data should include, but not necessarily be limited to, foam advisories issued by the state of Michigan, foam sampling results, and photographic images of foam and other observational data, where any additional evidence indicates a likely PFAS-containing foam source. If EGLE determines that a water body is failing to attain a designated use due to PFAS foam, it should formally list that water body as impaired in Michigan's 303(d) list.

(2) At a minimum, EGLE should document all instances of foam containing PFASs in the Integrated Report pursuant to section 305(b) of the Clean Water Act. In general, section 305(b) requires states to provide information on the water quality status of all waters in the state, including an "analysis of the extent to which all navigable waters of the state provide for the protection and propagation of . . . wildlife, and allow recreational activities in and on the water." 33 U.S.C. § 1315(b). Because PFAS foam data is pertinent to that status, EGLE should report on its water quality assessment of water bodies where PFAS foam has been found, even if the agency decides against listing certain water bodies as impaired on the basis of PFAS foam. In doing so, EGLE might rely on data sets created by the Michigan PFAS Action Response Team
("MPART") which contain results from foam sampling the state has conducted. *Surface Water and Foam Results*, DATA.MICHIGAN.GOV,
(The link provided was broken and has been removed) (last visited Mar. 3, 2021).

Conclusion

In summary, we appreciate the opportunity to provide comments on Michigan's draft 2022 Integrated Report Assessment Methodology, and urge EGLE to consider foam data when assessing support for the total body contact recreation and indigenous aquatic life and wildlife designated uses. We believe that this change to the methodology will allow EGLE to evaluate water quality in a way that more accurately reflects the conditions of the state's surface waters.

Respectfully,
Mike Shriberg
Regional Executive Director Great Lakes Regional Center National Wildlife Federation

Anthony Spaniola
Founding Member
Need Our Water (NOW)

Daniel A. Brown
Watershed Planner
Huron River Watershed Council

EGLE Response to Comment:
(*via electronic mail 1/7/2022*)

Dear Mr. Shriberg, Mr. Spaniola, and Mr. Brown:

I appreciate your collective thoughts, interest, and the time you spent to offer up comments during Michigan's Public Comment period on the Draft 2022 Integrated Report Assessment Methodology this past spring. I wanted to provide a response to your recommendations to consider foam data in the assessment process and make you aware of an upcoming opportunity to comment on the Draft 2022 Integrated Report as a whole.

Michigan developed water quality values protective of aquatic life and human health for various PFAS compounds in surface water as early as 2010. Similarly, the analysis of PFAS in fish tissue for the development of fish consumption advisories and associated Fish Consumption designated use impairments have been ongoing since at least 2011. The earliest identification and designations of impaired designated uses were based on monitoring related to Wurtsmith Airforce base and Clarks Marsh (first listed as impaired using data in 2014; VanEtten Lake was listed in 2016).

Because there are no established water quality standards related to PFAS in foams there are no plans to use those data in water quality assessment as recommended in your comments. The use of foam information for future monitoring efforts will continue to be the primary function in the monitoring and assessment process. Water chemistry and fish tissue monitoring for PFAS around Michigan continues to be a significant focus of the Water Resources Division using scientifically established and protective water quality values and public health thresholds. Please note that while analyzing foam composition is not part of our assessment process for PFAS, EGLE uses reports of PFAS-containing foams to identify and prioritize where to monitor for potential PFAS-related water quality concerns.

Additionally, as noted in your comment letter, information on the locations of confirmed PFAS-containing foams is currently readily available through the MPART web site for public information. The integrated report process, and the related 305(b) list, is not intended to be a water quality data storage/reporting system, rather the compilation of the assessment decisions made using relevant data. Because PFAS foam data are not specifically incorporated in the assessment of designated use support for the Integrated Report, and because PFAS-containing foam location data are already available, there is no plan to report those data in the 305(b) list.

While avoiding foams on lakes and rivers impacted by PFAS contamination is recommended, it is also acknowledged that PFAS does not easily move through skin, and that recreating in water containing PFAS is not considered harmful. Precautionary foam advisories are understandably concerning for residents of those areas but have not resulted in any known beach closures or other limits to recreating other than as an informational warning. Clearly, individuals must make personal decisions regarding their comfort and safety, but at this time there are no plans to use foam warnings in assessing recreational contact designated uses.

The Draft 2022 Integrated Report is expected to be out for Public Notice starting in mid-late January, 2022. We welcome your review and any comments and want to particularly draw your attention to the summary of new proposed impairments based on PFOS in fish tissue at over two dozen locations (see Figure 4.1 in the Draft Report, when released). Notification of the Public Notice period will appear on the EGLE Calendar web page and through an email list notice. If you are not on the email list and would like to be added, please subscribe to Email Updates.
Feel free to follow-up with any additional questions, your input is appreciated and thank you for highlighting your perspective on the importance of PFAS-containing foams in Michigan.

Sincerely, Kevin Goodwin

Kevin Goodwin (*he/him/his*)
Aquatic Biology Specialist
Lakes Erie, Huron, and Superior Unit
Water Resources Division
Michigan Department of Environment, Great Lakes, and Energy
NEW PHONE: 517-290-4198 | goodwink@michigan.gov
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Draft 2022 Integrated Report Public Comments Received (open for comment February 22 - March 25, 2022):

Partnership for the Saginaw Bay Watershed

A community volunteer organization, serving as the Public Advisory Council (PAC) to help restore the Saginaw River and Saginaw Bay Area of Concern (AOC).

March 25, 2022 via Email

Kevin Goodwin, Water Resources Division
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
goodwink@michigan.gov

Re: Support for the Proposed Listings of Inner Saginaw Bay on the 303(d) Impaired Waters List

Dear Mr. Goodwin,

The Partnership for the Saginaw Bay Watershed (Partnership) serves as the Public Advisory Council helping to restore the Saginaw River and Saginaw Bay so that it can be delisted as an Area of Concern (AOC). The AOC designation was placed several decades ago by the International Joint Commission (USA-Canada) due to the area's significant and highly degraded water quality conditions that impair our customary use of the recreational waters, birds, fish and other natural resources in our local Great Lakes setting.

Substantial public and private investments have been made over the years to improve waste handling practices, decrease sedimentation and reduce pollutants entering the system and monitoring shows the water quality of the area has improved from past conditions. There are still significant and stubborn problems, most notably is the excessively high level of phosphorus and nutrients in the inner Saginaw Bay. State and federal studies show these high nutrient levels are in fact an inner Saginaw Bay problem and do not extend to the outer bay or the larger Lake Huron. And these studies show the nutrient loading is from cultural eutrophication – human activities and not naturally occurring levels.

Locally at the shoreline we have first-hand experience with the problems resulting from this high nutrient loading in our nearshore area, including excessive algal growth turning the water a thick heavy green color and the sandy bay bottom becoming slimier as the summer wears on. Piles of dead and decaying aquatic plants accumulate in the shallows before portions get washed up onto the beach by wave action. This accumulated material impacts our use of the water, diminishes recreational activity in the nearshore area and its presence on the shoreline is unsightly, difficult or dangerous to walk through and emits foul odors. We've learned from the studies that the highly organic, nutrient loaded, warm wet material serves to harbor and fosters growth of E. coli so this muck resulting from cultural eutrophication is a public health sanitation issue as well.

For these reasons we are in strong support of the proposed listing of the inner Saginaw Bay on the 303(d) list as impaired due to high nutrient loading and E. coli. We note that the Saginaw River is not named and we hope this is an oversight. The Saginaw River provides over 70% of the daily flow into the Saginaw Bay and we believe it should also be included on the 303(d) list as a major contributor to the Saginaw Bay impairments.

Most importantly the 303(d) listing will allow for a Total Maximum Daily Limit (TMDL) to finally move forward to reduce pollutant inputs in a meaningful way. The Partnership and other water quality partners long ago submitted comments during the Integrated Report review requesting this specific action. The establishment of a TMDL is critically important as the Saginaw River and Bay system has not met the phosphorus concentration target of 0.015 mg/L established by the "Michigan Phosphorus Reduction Strategy for the Michigan Portion of Lake Erie and Saginaw Bay" set by the MDNR in 1985.

These are long standing problems. Community records show that heavy muck started showing up on Saginaw Bay beaches back in the 1920's - after the height of the sawmills and lumbering era of the 1880's and long before invasive zebra mussels entered the system. Invasive mussels may contribute to the cycling of available phosphorus and climate change may impact where and when the muck accumulates, but the excessively high levels of phosphorus and nutrients first identified decades ago can only be reduced when inputs are reduced and the TMDL for the Saginaw system should be a top priority.

Locally we have not been simply waiting. The Saginaw Bay community was the leader in adopting what became a statewide ban on the use of Phosphorus containing lawn fertilizer except on new lawns or where soil testing showed it was needed. We are doing our part to reduce nutrients and other pollutants and improve water quality. We support the Saginaw River and inner Saginaw Bay being included on the 303(d) list as an impaired waterbody based on excessive phosphorus and nutrient concentrations as this will be a most meaningful action to improve long term water quality in the Saginaw system.

Sincerely,

Laura Ogar

Laura Ogar, Chair
Partnership for the Saginaw Bay Watershed

Cc: Partnership Board
Jim Barcia, Bay County Executive
Ernie Krygier, Bay County Commissioner
Lyman Welch, Alliance for the Great Lakes
Jenn Tewkesbury, EGLE AOC Coordinator

LITTLE RIVER BAND OF OTTAWA INDIANS
NATURAL RESOURCES DEPARTMENT
2608 Government Center Drive
Manistee, MI 49660
(231) 723-8288
Fax (231) 723-8873

March 25, 2022

RE: Clean Water Act Section 303(d), 305(b), and 314 integrated report

Submitted Electronically to goodwink@michigan.gov

Dear Mr. Goodwin,

The Little River Band of Ottawa Indians (LRBOI) is one of the five Federally Recognized Tribes who are political successors to the 1836 Treaty of Washington signatories. LRBOI is a member of the Chippewa Ottawa Resource Authority (CORA), and retains the rights to hunt, fish, gather, and maintain resources within the 1836 Ceded Territory.

As part of protecting natural resources and our treaty rights LRBOI has reviewed the State of Michigan's Clean Water Act Sections 303(d), 306(b), and 414 integrated report and has the following comments.

The initial focus on Cisco is a bit confusing, while they are keystone species to determine if habitat change is impacting water quality, there does not seem to be an EGLE focus on monitoring those lakes listed in the Table as Cisco lakes. Does the state have a specific water quality standard for cisco lakes? If so, what is this standard and why is it not directly mentioned later in the report?

LRBOI appreciates the State of Michigan taking on using ATTAINS and assessment methodology that is well defined in the integrated report and through the numeric water quality standards. This makes the report readable and easy to understand what waterbodies are in attainment and what bodies are failing to reach attainment. LRBOI would be supportive of the State of Michigan reviewing and revising the water quality standards to be more protective of the State and shared resources.

Thank you for the opportunity to provide comments on this permit. If you have any questions, please contact me at 231-398-2196 or allisonsmart@lrboi-nsn.gov.

Sincerely,

Allison M. Smart
Environmental Division Manager

CC:
William Beaver, LRBOI NRD Director
Katherine Lambeth, EGLE Tribal Liaison

March 25, 2022
Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). Michigan

We, New Flevo Dairy, Inc are a dairy farm in Adrian Michigan. We would like to comment on the 2022 proposed addenda to the Statewide Ecoli TMDL. We don't agree with the addenda, especially River Raisin Watershed. The addition is not based on science or actual data, but rather EGLE holding one party responsible for an issue that concerns multiple parties. There is no scientific proof that CAFO's are responsible for the issue. Wastewater plants have been discharging multiple times per year over the last decades (with no consequences) and will continue to do so. Setting max. TMDL will not solve the actual problem.
CAFO's are under a 0 discharge permit, so why would they have to follow a maximum TMDL?

Before manure is being applied to a field, we are required to check our CNMP, the weather forecast, EGLE's weather forecast and now we also have to figure out the TMDL for that day? EGLE doesn't even have the accurate data to calculate the value so how do we comply with these regulations? Farmers take great pride in applying manure to their fields (have you seen todays fertilizer prices!!), using their best manure management practices and in an environmentally conscious way. The EGLE forecast (no haul when there is a 4 in the forecast) already eliminates multiple good and safe application days, because the forecast changes frequently especially in the summer.

The TMDL calculation will add another aspect we will have to take into consideration before we land apply and will eliminate even more days that could be perfect safe application days. The more days will be eliminated from spring, summer and fall applying, the more storage a CAFO needs, which doesn't benefit the farm or EGLE. CNMP's will become more complicated, more storage capacity is necessary, and farms will need to increase their land base. With the increase of solar farms this will be even harder.
More storage structures, larger land base, TMDL calculations will increase cost significantly for farmers and EGLE **and it will NOT solve the actual problem EGLE is trying to address**.

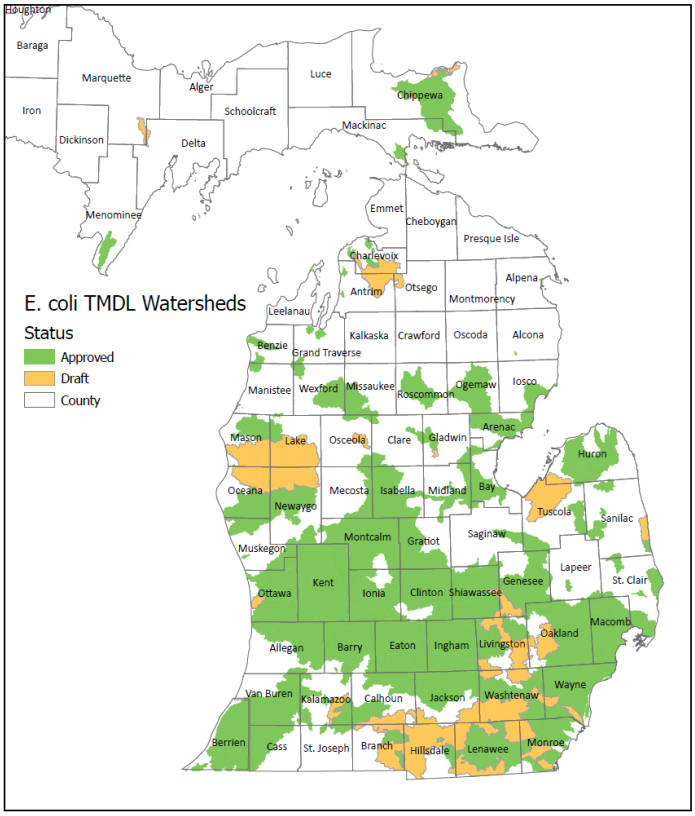
Farm Bureau discussed the following topics in their comments which we totally agree with.

In this draft Report, MDEGLE has proposed adding several Total Maximum Daily Load (TMDL) designations to inland lakes and streams not meeting water quality standards for E coli, and

adding River Raisin to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the River Raisin. We are concerned not only because of the lack of transparency in the Integrated Report for how these decisions were made, but also because while MDEGLE makes available information about developing watershed management plans and projects funded through Section 319 of the Clean Water Act for watershed recovery, these sources of information do not reflect a coordinated or complete effort toward achieving water quality recovery through collaboration with residents and stakeholders. Instead, it seems to reflect a rush toward implementing designations that are both the most restrictive in terms of regulation and most limited in terms of ability to impact meaningful change in all potential sources of pollutants in a watershed. We urge MDEGLE to reconsider both how it collects and reports on water quality data for water bodies and how it manages water quality protection and recovery, to better inform and engage partners in this process.

E coli TMDLs

According to MDEGLE's 2022 Addenda to the Statewide E coli TMDL, there appear to be 166 water body (stream, lake, or shoreline) segments, referred to as Assessment Units, being newly designated with E coli TMDL limits in 2022, which are included in the Report. The following map was provided by MDEGLE to permitted livestock farms in the affected watersheds, showing the extent of the new Assessment Units being designated with E coli TMDLs:



2022 MDEGLE map of watersheds with current and proposed E coli TMDLs provided to permitted livestock farms.

The Michigan Administrative Code establishes water quality standard requirements for E coli in waters of the state and state in relevant part:

> R323.1062 Microorganisms.
>
> Rule 62. (1) All surface waters of the state protected for total body contact recreation shall not contain more than 130 Escherichia coli (E. coli) per 100 milliliters, as a 30-day geometric mean. Compliance shall be based on the geometric mean of all individual samples taken during 5 or more sampling events representatively spread over a 30-day period. Each sampling event shall consist of 3 or more samples taken at representative locations within a defined sampling area. At no time shall the surface waters of the state protected for total body contact recreation contain more than a maximum of 300 E. per 100 milliliters. Compliance shall be based on the geometric mean of 3 or more samples taken during the same sampling event at representative locations within a defined sampling area.
> (2) All surface waters of the state protected for partial body contact recreation shall not contain more than a maximum of 1,000 E. coli per 100 milliliters. Compliance shall be based on the geometric mean of 3 or more samples, taken during the same sampling event, at representative locations within a defined sampling area.

However, several Assessment Units being designated with TMDLs do not appear to meet Michigan's standards for Impairment: five Assessment Units do not even meet the minimum number of sampling events required to establish non-compliance with water quality standards, having had fewer than five sampling events taken as required in the standards. They should not be designated with TMDLs at all until they meet the state's own water quality sampling requirements to assess Impairment. Seven more Assessment Units are listed as meeting the 30-day geometric mean standard for E coli per 100 mL of water but exceeding the daily Total Body Contact standards at least once. However, there is no way to verify this information because individual sampling events are not posted or referenced in this Addendum or in the Report. These seven Assessment Units all have very low 30-day geometric means for E coli sampling – 84, 72, 11, 69, 12, 19, and 38 E coli per 100 mL of water, respectively, meaning that if a sampling event exceeded total body contact standards of 300 E coli per 100 mL of water one or more times out of the total number of sampling events taken, those incidences would have to be far outside the normal range of sampling. Such outliers should be documented to help the regulated community understand the sampling methodology and confirm the accuracy of the results to understand why these results should be accepted as valid.

Additionally, another 57 Assessment Units are annotated with a code which the Addendum describes as: "The summary for this water body is based on contiguous up or downstream AIUD(s) with consistent land use patterns (n>5)." This leaves the reader uncertain whether the sampling events, results, 30-day geometric means, or designation with a TMDL is even being made on that Assessment Unit itself, or if MDEGLE staff are making assumptive leaps that an Assessment Unit needs a TMDL for E coli because a connected Assessment Unit (a connected water body such as nearby segments of the same stream, lake, or shoreline, upstream or downstream of the newly designated Assessment Unit) is also Impaired for E coli. Particularly

for Assessment Units upstream of their comparative neighbors, this annotation brings into serious question whether these Assessment Units should be part of the list of newly designated TMDLs for E coli. MDEGLE must provide both information and transparency about how its sampling methods are conducted and how an Assessment Unit can be designated with a TMDL based on the assessment of a neighboring or contiguous Assessment Unit. Otherwise, this means that out of the 166 new additions to the TMDL list for E coli, more than 40% of them have serious questions about the data results and whether they belong on the list of TMDLs.

This review of MDEGLE's E coli TMDL assignments is not merely an exercise in correcting spreadsheet data. By assigning TMDLs in water bodies around the state, MDEGLE imposes serious and long-lasting regulatory requirements on all permitted facilities within the watershed of that water body, and increases scrutiny of potential non-point sources, both of which increase the compliance burden for farmers. Any farm operating under an NPDES permit, including Concentrated Animal Feeding Operations (CAFOs), must meet stringent requirements if the production area or *any* of the fields receiving land application of manure nutrients are located within these TMDLs. Even for farms that do not require NPDES permits to operate, increased visits from MDEGLE staff to check compliance or investigate potential discharges takes valuable time the farms can scarce afford with shortages of labor and tight margins for operation – even if they have not had a discharge.

Reviewing the records publicly available through MiWaters, the State of Michigan's permitting and compliance website, it appears that though hundreds of violations have been documented for CAFOs since MiWaters was implemented in 2015, the vast majority of those violations are related to paperwork delays and errors, not discharges. Between September 2015 when the MiWaters system was activated and May 2021, following the most recent winter and spring season when the majority of discharges are recorded, those records appear to reflect only 67 violations from discharges attributed to CAFOs, an average of 14 discharges per year, compared to nearly 700 violations per year due to sanitary sewer discharges from wastewater treatment facilities, according to MDEGLE's Annual Reports for Sanitary and Combined Sewer Overflows. Farms are also impacted by increased costs and compliance requirements for non-farm related regulation, including increased costs, permitting and regulatory delays for other permitting programs such as drainage or inland lakes, streams and wetland permits, stormwater and municipal wastewater discharge permits if they are within the boundaries of those service areas, and septic system and other groundwater discharge program requirements if they are not inside municipal boundaries.

We urge MDEGLE to review data on proposed TMDLs for E coli, ensure the sampling events used to make a TMDL determination are 1) in compliance with the Michigan Administrative Code requirements, 2) provide information about sampling events that create significant outliers in reported data sets to ensure those data can be validated, and 3) are actually for the Assessment Units proposed to be added to the TMDL list, and not simply being added to the list because a neighboring Assessment Unit is on the list. Residents in these watersheds do not just depend on MDEGLE to protect water quality and public health; they also rely on MDEGLE to follow its own rules and not overburden the regulated community without a demonstrated need to do so as well as evidence that such action will result in water quality improvement.

Conclusion

We urge MDEGLE to reconsider its plans to designate TMDLs for E coli in water body Assessment Units where data is lacking or appears to be based on outliers in a data set that otherwise appears to meet state water quality standards. MDEGLE must follow its own regulatory standards for designation of TMDLs for water bodies, and provide transparent and accurate information about those designations, especially when the state has an approved statewide TMDL for E coli that allows water bodies to be designated with a TMDL without first being designated as Impaired in a slower but more deliberate and data-driven approach.

Farmers across Michigan work hard to comply with regulatory standards and have shown they are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners both to prevent E coli contamination of water bodies but also to prevent excess nutrient loading into watersheds like the River Raisin. Thank you for your consideration of our comments. Please feel free to contact me with any questions.

Sincerely,

Lisa Schot

New Flevo Dairy Adrian Michigan
liesbethschot@hotmail.com

MICHIGAN FARM BUREAU

March 25th, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

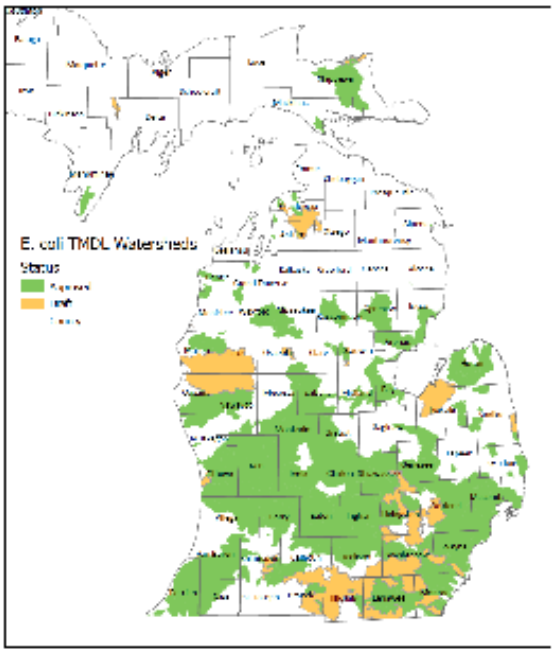
Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). Michigan Farm Bureau is our state's largest general farm organization, representing more than 40,000 farming families across the state. On their behalf, we are writing to express our concerns about this Report. Farmers across Michigan work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live.

In this draft Report, MDEGLE has proposed adding several Total Maximum Daily Load (TMDL) designations to inland lakes and streams not meeting water quality standards for E coli, and adding Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. We are concerned not only because of the lack of transparency in the Integrated Report for how these decisions were made, but also because while MDEGLE makes available information about developing watershed management plans and projects funded through Section 319 of the Clean Water Act for watershed recovery, these sources of information do not reflect a coordinated or complete effort toward achieving water quality recovery through collaboration with residents and stakeholders. Instead, the proposed designations in this report seem to reflect a rush toward implementing designations that are both the most restrictive in terms of regulation and most limited in terms of ability to impact meaningful change in all potential sources of pollutants in a watershed. We urge MDEGLE to reconsider both how it collects and reports on water quality data for water bodies and how it manages water quality protection and recovery, to better inform and engage partners in this process.

E coli TMDLs

According to MDEGLE's 2022 Addendum to the Statewide E coli TMDL, there appear to be 166 water body (stream, lake, or shoreline) segments, referred to as Assessment Units, being newly designated with E coli TMDL limits in 2022, which are included in the Report. The following map was provided by MDEGLE to permitted livestock farms in the affected watersheds, showing the extent of the new Assessment Units being designated with E coli TMDLs:

7373 West Saginaw Highway, Lansing, MI 48917
MichiganFarmBureau.com



2022 MDEGLE map of watersheds with current and proposed E coli TMDLs provided to permitted livestock farms.

The Michigan Administrative Code establishes water quality standard requirements for E coli in waters of the state and state in relevant part:

> R323.1062 Microorganisms.
>
> Rule 62. (1) All surface waters of the state protected for total body contact recreation shall not contain more than 130 Escherichia coli (E. coli) per 100 milliliters, as a 30-day geometric mean. Compliance shall be based on the geometric mean of all individual samples taken during 5 or more sampling events representatively spread over a 30-day period. Each sampling event shall consist of 3 or more samples taken at representative locations within a defined sampling area. At no time shall the surface waters of the state protected for total body contact recreation contain more than a maximum of 300 E. per 100 milliliters. Compliance shall be based on the geometric mean of 3 or more samples taken during the same sampling event at representative locations within a defined sampling area.
> (2) All surface waters of the state protected for partial body contact recreation shall not contain more than a maximum of 1,000 E. coli per 100 milliliters. Compliance shall be based on the geometric mean of 3 or more samples, taken during the same sampling event, at representative locations within a defined sampling area.

However, several Assessment Units being designated with TMDLs do not appear to meet Michigan's standards for Impairment: five Assessment Units do not even meet the minimum number of sampling events required to establish non-compliance with water quality standards, having had fewer than five sampling events taken as required in the standards. They should not be designated with TMDLs at all

until they meet the state's own water quality sampling requirements to assess Impairment. Seven more Assessment Units are listed as meeting the 30-day geometric mean standard for E coli per 100 mL of water but exceeding the daily Total Body Contact standards at least once. However, there is no way to verify this information because individual sampling events are not posted or referenced in this Addendum or in the Report. These seven Assessment Units all have very low 30-day geometric means for E coli sampling – 84, 72, 11, 69, 12, 19, and 38 E coli per 100 mL of water, respectively, meaning that if a sampling event exceeded total body contact standards of 300 E coli per 100 mL of water one or more times out of the total number of sampling events taken, those incidences would have to be far outside the normal range of sampling. Such outliers should be documented to help the regulated community understand the sampling methodology and confirm the accuracy of the results to understand why these results should be accepted as valid.

Additionally, another 57 Assessment Units are annotated with a code which the Addendum describes as: "The summary for this water body is based on contiguous up or downstream AIUD(s) with consistent land use patterns (n>5)." This leaves the reader uncertain whether the sampling events, results, 30-day geometric means, or designation with a TMDL is even being made on that Assessment Unit itself, or if MDEGLE staff are making assumptive leaps that an Assessment Unit needs a TMDL for E coli because a connected Assessment Unit (a connected water body such as nearby segments of the same stream, lake, or shoreline, upstream or downstream of the newly designated Assessment Unit) is also Impaired for E coli. Particularly for Assessment Units upstream of their comparative neighbors, this annotation brings into serious question whether these Assessment Units should be part of the list of newly designated TMDLs for E coli. MDEGLE must provide both information and transparency about how its sampling methods are conducted and how an Assessment Unit can be designated with a TMDL based on the assessment of a neighboring or contiguous Assessment Unit. Otherwise, this means that out of the 166 new additions to the TMDL list for E coli, more than 40% of them have serious questions about the data results and whether they belong on the list of TMDLs.

This review of MDEGLE's E coli TMDL assignments is not merely an exercise in correcting spreadsheet data. By assigning TMDLs in water bodies around the state, MDEGLE imposes serious and long-lasting regulatory requirements on all permitted facilities within the watershed of that water body, and increases scrutiny of potential non-point sources, both of which increase the compliance burden for farmers. Any farm operating under an NPDES permit, including Concentrated Animal Feeding Operations (CAFOs), must meet stringent requirements if the production area or *any* of the fields receiving land application of manure nutrients are located within these TMDLs. Even for farms that do not require NPDES permits to operate, increased visits from MDEGLE staff to check compliance or investigate potential discharges takes valuable time the farms can scarce afford with shortages of labor and tight margins for operation – even if they have not had a discharge.

Reviewing the records publicly available through MiWaters, the State of Michigan's permitting and compliance website, it appears that though hundreds of violations have been documented for CAFOs since MiWaters was implemented in 2015, the vast majority of those violations are related to paperwork delays and errors, not discharges. Between September 2015 when the MiWaters system was activated and May 2021, following the most recent winter and spring season when the majority of discharges are recorded, those records appear to reflect only 67 violations from discharges attributed to CAFOs, an average of 14 discharges per year, compared to nearly 700 violations per year due to sanitary sewer discharges from wastewater treatment facilities, according to MDEGLE's Annual Reports for Sanitary and Combined Sewer Overflows. Farms are also impacted by increased costs and compliance requirements for non-farm related regulation, including increased costs, permitting and regulatory delays for other permitting programs such as drainage or inland lakes, streams and wetland permits, stormwater and municipal wastewater discharge permits if they are within the boundaries of those service areas, and septic system and other groundwater discharge program requirements if they are not inside municipal boundaries.

Michigan Farm Bureau urges MDEGLE to review data on proposed TMDLs for E coli, ensure the sampling events used to make a TMDL determination are 1) in compliance with the Michigan Administrative Code requirements, 2) provide information about sampling events that create significant outliers in reported data sets to ensure those data can be validated, and 3) are actually for the Assessment Units proposed to be added to the TMDL list, and not simply being added to the list because a neighboring Assessment Unit is on the list. Residents in these watersheds do not just depend on MDEGLE to protect water quality and public health; they also rely on MDEGLE to follow its own rules and not overburden the regulated community without a demonstrated need to do so as well as evidence that such action will result in water quality improvement.

Saginaw Bay Impairment Designation

This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

The Nature Conservancy. 2018. Saginaw Bay Water Replenishment.

However, this decision is based on too few data points, outdated studies and models, and not enough assessment of water quality trends over time. We are also concerned because MDEGLE has stated it does not intend to develop or implement a plan to collaborate on reducing nutrient losses into Saginaw Bay like has been done in the Western Basin of Lake Erie watershed, or to use the Category 5 Alternative designation available for restoration approaches that are more practical than designating a Total Maximum Daily Load (TMDL) limit in the Bay. Instead MDEGLE has said the agency will move directly to a TMDL to implement regulations of water quality. This essentially removes the ability to find collaborative, proactive ways to reduce nutrient loading in the watershed, implements regulations that punish farmers for the good activities they have already implemented, and could require practices that both cost farmers more time and money and may also not be as effective as voluntary conservation programs designed to work with each farm's needs.

We urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired, so more information about nutrient loading and trends can be collected and sources can be identified to better improve water quality. Alternatively, if Saginaw Bay is designated as Impaired, we urge MDEGLE to work with farmers, regulated facilities, municipalities, and residents to develop a meaningful plan to address the Impairment and prevent the need for a TMDL in the watershed.

Studies and Data Collection in the Saginaw Bay and Watershed

Currently, there is no significant water quality data collection in the Saginaw Bay and surrounding watersheds, unlike the Western Lake Erie Basin. MDEGLE indicates this in the Integrated Report that observation of the blooms has, in part, been limited by shoreline monitoring. This creates many challenges to the stakeholders in the region because scientifically sound water quality data is an important component to an effective management strategy.

There are only three active stream gauges in the watershed and only five active monitoring sites in the Bay itself. Comparatively, as of 2021 Heidelberg University has 21 sampling stations in Ohio and southeastern Michigan and eight stations throughout the western portion of Lake Erie, most of which were installed before Lake Erie was designated as Impaired. The need for additional monitoring in the Bay is especially important given the unique nature, discussed in the studies below, of the inner bay showing some signs of elevated nutrients but the outer bay being low in nutrients. While monitoring does not provide immediate answers or solutions, it provides insight into potential management techniques. Michigan Farm Bureau urges the collection of more water quality data before an impairment designation and to better form collaborative efforts in the Saginaw Bay.

There have been some previous studies on Saginaw Bay. These studies reveal several important characteristics and questions that should impact management decisions for the Saginaw Bay. A recent study[1] indicates while there is concern about the eutrophic (high-nutrient) status of the inner bay, the outer bay is oligotrophic (low-nutrient). There is potential that water from the outer bay has a diluting effect on the blooms in the inner bay. How do potential management strategies with the goal of reducing nutrient inputs to the inner bay, impact the low-nutrient outer bay? In addition, this study also modelled dissolved reactive phosphorus (DRP) concentrations and this suggested that DRP concentrations are lower in the Saginaw River in comparison to the Maumee River. While positive, additional water quality data can help affirm the results and inform appropriate best management practices.

The impact of invasive species on the Saginaw Bay also cannot be understated. Another research paper[2] suggests that the concentration of nutrients in the inner bay is likely caused by invasive Zebra and Quagga mussels and that another important species in the lake are more negatively impacted by invasive species (especially the alewives) than elevated nutrient levels. This same research paper suggests that there could be unintended consequences for species in the Saginaw Bay if nutrients drop too much, which is another factor that should be considered in management decisions.

As for sources of phosphorous, another study[3] estimates that phosphorous entering the Bay comes from a wide variety of sources, which makes sense given the diversity of watersheds in the Saginaw Bay. The Saginaw River Watershed and Flint River Watershed are more urban watersheds (suggesting more inputs from urban sources) while Tittabawassee River Watershed, Cass River, and Pigeon-Wiscoggin River are more rural watersheds. This study also notes a trend of increased non-farm applications of nitrogen and phosphorus from 1987-2002, which their study indicates accounts for 3-7% of total applied nutrients and could present a high contamination potential for surface and groundwater. While not earth-shattering information, this indicates there are many opportunities for collaboration on voluntary conservation efforts, most of which aren't impacted by a TMDL according to MDEGLE's FAQ document

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[1] Timothy T. Wynne, Richard P. Stumpf, R. Wayne Litaker, Raleigh R. Hood, Cyanobacterial bloom phenology in Saginaw Bay from MODIS and a comparative look with western Lake Erie, Harmful Algae, Volume 103, 2021.

[2] Kao, Yu-Chun & Adlerstein, Sara & Rutherford, Edward. (2014). The relative impacts of nutrient loads and invasive species on a Great Lakes food web: An Ecopath with Ecosim analysis. Journal of Great Lakes Research. 40. 10.1016/j.jglr.2014.01.010.

[3] Chansheng He, Lanhui Zhang, Carlo DeMarchi, Thomas E. Croley, Estimating point and non-point source nutrient loads in the Saginaw Bay watersheds,
Journal of Great Lakes Research, Volume 40, Supplement 1, 2014, Pages 11-17.

on E coli TMDLs (i.e. non-point source management). Updated research could also provide additional insights on sources of phosphorus into the Bay.

Again, while previous and/or older studies may provide some insight, more consistent and current information is needed to make informed management decisions in the Saginaw Bay.

Conservation Activities in Saginaw Bay

If MDEGLE rushes to designate an Impairment and then fails to develop a plan to address the Impairment before then designating a TMDL affecting this entire watershed, it will impact 22 counties in Michigan's lower peninsula as part of Saginaw Bay's watershed. This not only ignores the positive benefit farmers have had through their conservation efforts, but also disincentivizes further participation in these voluntary, proactive programs by threatening them with regulatory limits and penalties.

Farmers in the Saginaw Bay counties have implemented proactive, voluntary practices to minimize nutrient and sediment loss on a wide scale. Both through Farm Bill conservation programs and the Michigan Agriculture Environmental Assurance Program (MAEAP), farmers have continued to do good work despite weather and financial challenges and during a global pandemic. For instance, according to annual summary records provided by the Michigan Farm Service Agency state office and the Michigan Natural Resources Conservation Service state office, since 2016, farmers in Saginaw Bay counties have restored wetlands and highly erodible lands through the Conservation Reserve Program (CRP) on tens of thousands of acres each year – average acreage in CRP in the Saginaw Bay Counties during that time is nearly 70,000 acres. Farmers have also implemented practices to protect soil health and water quality on working farmlands in the Saginaw Bay watershed: since 2016, farmers participating in Farm Bill programs through the Natural Resources Conservation Service have implemented residue and tillage management and reduced or no till on nearly 45,000 acres. They have planted cover crops on more than 228,000 acres. They have implemented nutrient management plans and precision agriculture for nutrient loss reduction on nearly 137,000 acres, and increased crop rotations on more than 5,000 acres.

While there is some overlap between participation in MAEAP and Farm Bill programs, MAEAP verified farmers have implemented many practices not captured by Farm Bill program participation, and the MAEAP program has calculated nutrient and sediment loss reduction successes from practices these farmers have used in its Annual Legislative Reports. According to the Annual Legislative Reports published in 2017-2021, In the last 5 years alone, farmers in Saginaw Bay counties who have completed MAEAP verification have completed nutrient management plans on nearly 500,000 acres. They have planted more than 1.3 million linear feet of buffer and filter strips. They have planted more than 123,000 acres of cover crops. They have reduced or eliminated tillage or planted grass cover on more than 435,000 acres. Together these practices have kept on fields and out of waterways more than 730,000 tons of sediment, more than 1.8 million pounds of phosphorus, and nearly 2.6 million pounds of nitrogen. Thousands more farmers in Saginaw Bay counties are working toward MAEAP verification as well, implementing practices that protect water quality and soil health that have not been counted in these totals.

Conclusion

Michigan Farm Bureau urges MDEGLE to reconsider its plans to designate TMDLs for E coli in water body Assessment Units where data is lacking or appears to be based on outliers in a data set that otherwise appears to meet state water quality standards. MDEGLE must follow its own regulatory standards for designation of TMDLs for water bodies, and provide transparent and accurate information about those designations, especially when the state has an approved statewide TMDL for E coli that allows water bodies to be designated with a TMDL without first being designated as Impaired in a slower but more deliberate and data-driven approach.

We further urge MDEGLE to reconsider its plans to designate the Saginaw Bay as Impaired. More research and data collection are needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to the Category 5 Alternative to develop a restoration plan incorporating adaptive management tailored to specific circumstances and working with stakeholders in the watershed to successfully implement it. Farmers across Michigan work hard to comply with regulatory standards and have shown they are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners both to prevent E coli contamination of water bodies but also to prevent excess nutrient loading into watersheds like the Saginaw Bay. Thank you for your consideration of our comments. Please feel free to contact me with any questions.

Sincerely,

Tess Van Gorder

Tess Van Gorder

Conservation & Regulatory Relations Specialist, Michigan Farm Bureau
tvangor@michfb.com or 517-323-6711

Alliance for the Great Lakes • Environmental Law & Policy Center
Environmentally Concerned Citizens of South Central Michigan (ECCSCM)
For Love of Water (FLOW) • Freshwater Future • Freshwater Future Canada
Michigan Environmental Council • Michigan League of Conservation Voters

March 25, 2022

Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Water Resources Division
P.O. Box 30458
Lansing, Michigan 48909

Delivered via email to: goodwink@michigan.gov

Re: 2022 Integrated Report

Mr. Goodwin,

The undersigned organizations submit this letter in response to Michigan's Draft 2022 Integrated Report (IR). We appreciate the listing of Saginaw Bay as impaired, which is a much-needed step in addressing the nutrient problems that plague this waterbody and reducing the occurrence of cyanobacteria blooms. In addition, we applaud the continued use of the statewide *E. coli* Total Maximum Daily Load (TMDL), which will help protect public health in addition to the designated uses of waterbodies across the state.

The bulk of our comments concern the IR's proposal to use an Alternative Restoration Approach (ARA) rather than a TMDL for Michigan's portion of western Lake Erie. The IR states that EGLE need not, and will not, prepare a TMDL because the agency supposedly satisfies U.S. EPA's guidelines for using an ARA, which warrants designating western Lake Erie as "category 5-alt." As explained below, we believe the alternative plan – as structured by EGLE – is insufficient and does not provide comparable accountability to a TMDL. We urge EGLE to reconsider the use of the alternative plan in favor of a TMDL.

Appendix F argues there is no need to prepare a TMDL because EGLE is already obtaining necessary reductions from point sources through the NPDES program and a TMDL, in and of itself, would not "provide more regulatory authority over nonpoint source contributions." EGLE further argues that a TMDL is not appropriate because the western basin is a multijurisdictional waterbody. None of these arguments support bypassing the TMDL process.

On the point source side, EGLE disregards that Concentrated Animal Feeding Operations (CAFOs) are point sources that, in Michigan, require NPDES permits. For reasons the signers of this letter

explained in their comments on EGLE's 2020 CAFO General Permit, that Permit is not nearly protective enough of water quality. EGLE could substantially tighten effluent limitations on those point sources to achieve an established TMDL. Indeed, such tightening would be required if a TMDL were prepared. *See* 40 C.F.R. § 130.7(c)(1).

It is true that TMDL's do not, in and of themselves, "provide more regulatory authority over nonpoint source contributions." However, that cannot, and is not, an excuse to avoid preparing a TMDL. Congress unambiguously required TMDLs in the Clean Water Act for all impaired waterbodies, stating "[e]ach state *shall* establish" such TMDLs, knowing full well what additional authority TMDLs do and do not provide. *See* 33 U.S.C. § 1313(d)(1)(C) (emphasis added). *See also* 40 C.F.R. § 130.7(c)(1) ("Each state *shall* establish TMDLs for" all impaired waters) (emphasis added); *ELPC v. U.S. EPA,* 415 F. Supp. 3d 775, 778, 793 (N.D. Ohio 2019) (states have "duty" to prepare TMDLs for impaired waters). The Clean Water Act imposes a "duty" and "obligation" to prepare TMDLs for impaired waterbodies and EGLE cannot simply declare a federal statutory requirement optional.

EGLE's stance also disregards the fact that the agency has prepared TMDLs to remedy water pollution from nonpoint sources, including its statewide *E. coli* TMDL, and those TMDLs have led to water quality improvements. The IR raises the question of whether EGLE intends to reverse course on that statewide *E. coli* TMDL and whether it intends to avoid its TMDL obligation with respect to Saginaw Bay, which the IR has now correctly deemed impaired.

Appendix F also argues that a TMDL is somehow inappropriate because Western Lake Erie is a "multi-jurisdictional waterbody" and the relevant states (and the Province of Ontario) have prepared Domestic Action Plans and otherwise cooperated pursuant to the Great Lakes Water Quality Agreement, Annex 4. But while the Annex 4 process helpfully established reduction targets for total and dissolved reactive phosphorus pollution – 40% from 2005 levels by 2025 – it has not resulted in any meaningful progress toward achieving those targets following the initial point source reductions. Indeed, Michigan's most recent Adaptive Management Plan – released by EGLE and other Michigan agencies in December 2021 – confirmed that DRP loads into the River Raisin have continued to increase, despite years of effort pursuant to Annex 4. Given the failure of non-TMDL approaches so far, there is no reason to believe that a TMDL would conflict with or undermine those approaches and EGLE does not try to explain why that would be the case. In fact, a TMDL could supplement and strengthen those Annex 4-related efforts.

We also note that another rationale EGLE cites to support avoiding its TMDL obligation in favor of an alternative approach – "Stakeholder and Public Support" – is itself unsupported. This rationale simply summarizes the stakeholder and public involvement processes EGLE is following in its Annex 4-related efforts. It does not attempt to demonstrate the stakeholders and the public support pursuing those Annex 4 efforts *instead of* a TMDL, and as these comments demonstrate, the undersigned members of the environmental community take exactly the opposite position.

In addition, the proposed ARA is inadequate under U.S. EPA's 5-alt Standard. Although there is no authority for it in the text of the Clean Water Act, U.S. EPA has allowed states to use 5-alt

classification to pursue ARAs under certain conditions. Those conditions are generally outlined in the leftmost column in Table 2 of Appendix F. Among other things, the conditions require states to identify specific non-TMDL actions to remediate pollution, funding for those non-TMDL actions, a timeline for the alternative approach to achieve water quality standards, metrics to evaluate if the alternative approach is working, and a timeline for pivoting to a TMDL if necessary.

EGLE lays out how it supposedly satisfies these conditions in the rightward columns of Table 2, but the explanations rely almost entirely on boilerplate language summarizing current Domestic Action Plan and Adaptive Management Plan activities (which, as noted above, are currently failing to remediate Lake Erie). Those activities consist largely of promoting agricultural "Best Management Practices" (BMPs). Over-reliance on these practices to the exclusion of other approaches have led us to the situation we experience today: certain failure on the current trajectory to reach the 40% phosphorus reduction goal by 2025. EGLE does not explain why it believes these approaches will suddenly start being effective. It also fails to include any metrics for evaluating if its alternative approach is on track for achieving water quality standards or any deadline for preparing a TMDL if those alternatives continue to fail. We do not believe EGLE has satisfied EPA's conditions for pursuing an ARA instead of a TMDL.

A recent federal court decision makes this even clearer. Before it finally committed to prepare a TMDL for its portion of western Lake Erie, the State of Ohio insisted that Annex 4 processes like its Domestic Action Plan constituted an adequate TMDL alternative. Commenter ELPC challenged U.S. EPA's approval of Ohio's decision to forego a TMDL in a federal lawsuit and U.S. EPA moved to dismiss the case, citing Ohio's supposed ARAs. The court denied the motion to dismiss, finding that Ohio's IR "d[id] not explain how [its supposed alternative] measures can be expected to remediate Lake Erie" and failed to "create a plan for producing a TMDL for Western Lake Erie" if the alternatives failed. *ELPC v. U.S. EPA*, 415 F.Supp.3d 775, 791 (N.D. Ohio 2019). The court held that Ohio's "inability to develop a credible plan involving alternative remediation mechanisms to restore Lake Erie — let alone a credible plan . . . to produce a TMDL for the Lake should those alternative mechanisms fall short," supported ELPC's claim that Ohio made a "constructive submission" of no TMDL. *Id.* at 792 (internal citations omitted).

The State of Michigan is in the same position here. It has not promulgated a credible non-TMDL plan for achieving water quality standards in western Lake Erie and has no metrics or timetable for shifting to a TMDL – which, again, is the sole approach to remediating impaired waterbodies required by the Clean Water Act – if those alternatives fail. Whatever approach the state uses to address the water quality problems plaguing Lake Erie, it must develop a timeline for achieving its stated goals. This should include identifying benchmarks based on measurable improvements in water quality as well as determining a specific point in time when the approach to solving the problems needs to change. This is in line with an adaptive management approach. Of all the reasons outlined above regarding the need for the development of a TMDL, increased accountability and a timeline for implementation may be the most important of all. For these reasons, we urge EGLE to revise its 2022 IR to commit to preparing a TMDL for Michigan's portions of western Lake Erie by 2023.

While development of a TMDL for the open waters of Lake Erie is the legally required and otherwise preferred approach, we also note that the commitment to prepare TMDLs for smaller waterbodies at the HUC-12 level as described in the IR is also a valuable effort to continue. For example, the targeted HUC sites for data collection include all of the agriculturally impacted watersheds in Michigan's portion of the WLEB. This will provide information needed to better guide management decisions at a more localized scale. We appreciate the consideration of our comments and welcome any questions.

Sincerely,

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To: Goodwin, Kevin (EGLE) GOODWINK@michigan.gov Fri 3/25/2022 3:38 PM

I fully support the listing of the Saginaw Bay and several of smaller tributaries of the Saginaw Bay as indicated in the 2022 Integrated Report. The inclusion of the Bay and tributaries as impaired because of excessive algal growth resulting from high nutrient levels, especially in near shore areas, which has been further contaminated with waste matter runoff containing ecoli and pathogens id long overdue.

Since I moved to the Saginaw Bay watershed over 40 years ago and having lived on the shore of Saginaw Bay for the past 20 years I have been a member of many organizations which have pushed locally and state wide for some protection of the Saginaw Bay. With the listing as impaired waters, contamination limits can finally be set and controls be implemented, where practical, to sustain the Saginaw Bay as a viable economic resource for the area for years to come.

Best Regards,
F. P. Frauson
Linwood, MI

Sent from my iPhone

Appendix E: Public Comments Received

To: Goodwin, Kevin (EGLE) GOODWINK@michigan.gov Fri 3/25/2022 11:11 AM
Cc: Keclik, Donna <keclik.donna@epa.gov>

Hello Mr. Goodwin

Thank you for the opportunity to comment on the public notice draft of MI's 2022 Integrated Report. EPA Region 5 would like to submit the following comments.

EPA notes that most of the waterbodies with the public water supply use in the 305(b) list (Appendix B) are either not assessed or had insufficient information to assess for this use, and two waterbodies were on the 303(d) list (Appendix C) for not supporting the public water supply use (i.e., two Lake Erie intakes due to cyanobacteria).

1. EPA encourages EGLE to strengthen their monitoring strategy and program to more thoroughly collect data for the purposes of public water supply use assessment.
2. EGLE also may want to consider different methodologies for Great Lakes assessment units vs. inland assessment units for the public water supply use.
3. We also encourage EGLE to assess waters for the public water supply use that are hydrologically connected to groundwater and water systems that are directly influenced by surface water—that is, not just where there are surface intakes.

Please let me know if you have any questions or would like to discuss.

Jim Ruppel
EPA Region 5
Water Division

March 24, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). On behalf of the farmer members of _____Tuscola_____ County Farm Bureau, we are writing to express our concerns about this Report. Farmers in ___Tuscola_____ County work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live. In this draft Report, MDEGLE has added Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

The Nature Conservancy. 2018. Saginaw Bay Water Replenishment. Retrieved from: https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/michigan/projects/Pages/SagBayGWR.aspx.

However, this decision is based on too few data points, outdated studies and models, and not enough assessment of water quality trends over time. We are also concerned because MDEGLE has stated it does not intend to develop or implement a plan to collaborate on reducing nutrient losses into Saginaw Bay like has been done in the Western Basin of Lake Erie watershed, or to use the Category 5 alternative designation available for restoration approaches that are more practical than designating a Total Maximum Daily Load (TMDL) limit in the Bay. Instead MDEGLE has said the agency will move directly to a TMDL to implement regulations of water quality. This essentially removes the ability to find

collaborative, proactive ways to reduce nutrient loading in the watershed, implements regulations that punish farmers for the good activities they have already implemented, and could require practices that both cost farmers more time and money and may also not be as effective as voluntary conservation programs designed to work with each farm's needs.

We urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired, so more information about nutrient loading and trends can be collected and sources can be identified to better improve water quality. Alternatively, if Saginaw Bay is designated as Impaired, we urge MDEGLE to work with farmers, regulated facilities, municipalities, and residents to develop a meaningful plan to address the Impairment and prevent the need for a TMDL in the watershed.

Studies and Data Collection in the Saginaw Bay and Watershed

Currently, there is no significant water quality data collection in the Saginaw Bay and surrounding watersheds, unlike the Western Lake Erie Basin. This creates many challenges to the stakeholders in the region because scientifically sound water quality data is an important component to any management strategy.

There are only three active stream gauges in the watershed and only five active monitoring sites in the Bay itself. Comparatively, as of 2021 Heidelberg University has 21 sampling stations in Ohio and southeastern Michigan and eight stations throughout the western portion of Lake Erie, most of which were installed before Lake Erie was designated as Impaired. The need for additional monitoring in the Bay is especially important given the unique nature, discussed in the studies below, of the inner bay showing some signs of elevated nutrients but the outer bay being low in nutrients. While monitoring does not provide immediate answers or solutions, it provides insight into potential management techniques.

There have been some previous studies on Saginaw Bay. These studies reveal several important characteristics and questions that should impact management decisions for the Saginaw Bay. A recent study indicates while there is concern about the eutrophic (high-nutrient) status of the inner bay, the outer bay is oligotrophic (low-nutrient). There is potential that water from the outer bay has a diluting effect on the blooms in the inner bay. How do potential management strategies with the goal of reducing nutrient inputs to the inner bay, impact the low-nutrient outer bay?

As for sources of phosphorous, another study estimates that phosphorous entering the Bay comes from a wide variety of sources: point source and non-point source, urban and rural. While not earth-shattering information, this indicates there are many opportunities for collaboration on voluntary conservation efforts, most of which aren't impacted by a TMDL according to MDEGLE's FAQ document on E coli TMDLs (i.e. non-point source management).

The impact of invasive species on the Saginaw Bay also cannot be understated. Another research paper suggests that the concentration of nutrients in the inner bay is likely caused by invasive Zebra and Quagga mussels and that another important species in the lake are more impacted by invasive species (especially the alewives) than elevated nutrient levels. This same research paper suggests that there could be unintended consequences for species in the Saginaw Bay if nutrients drop too much, which should be considered in management decisions.

Conservation Activities in Saginaw Bay

If MDEGLE rushes to designate an Impairment and then fails to develop a plan to address the Impairment before then designating a TMDL affecting this entire watershed, it will impact 22 counties in Michigan's lower peninsula as part of Saginaw Bay's watershed. This not only ignores the positive benefit farmers have had through their conservation efforts, but also disincentivizes further participation in these voluntary, proactive programs by threatening them with regulatory limits and penalties.

Farmers in the Saginaw Bay counties have implemented proactive, voluntary practices to minimize nutrient and sediment loss on a wide scale. Both through Farm Bill conservation programs and the Michigan Agriculture Environmental Assurance Program (MAEAP), farmers have continued to do good work despite weather and financial challenges and during a global pandemic. For instance, since 2016, farmers in Saginaw Bay counties have restored wetlands and highly erodible lands through the Conservation Reserve Program at an annual average of nearly 70,000 acres (data provided by Farm Service Agency). Farmers have also implemented practices to protect soil health and water quality on working lands in the Saginaw Bay watershed: since 2016, farmers participating in Farm Bill conservation programs through the Natural Resources Conservation Service have implemented residue and tillage management and reduced or no till on nearly 45,000 acres. They have planted cover crops on more than 228,000 acres. They have implemented nutrient management plans and precision agriculture for nutrient loss reduction on nearly 137,000 acres, and increased crop rotations on more than 5,000 acres (data provided by the Natural Resources Conservation Service).

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Conclusion

___Tuscola_____ County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration plan incorporating adaptive

management tailored to specific circumstances and working with stakeholders in the watershed to successfully implement it. Farmers in the Saginaw Bay watershed have already shown we are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners in Saginaw Bay.

Sincerely,

Jeff A. Schluckbier

Mike Milligan

Chris Creguer

Tuscola County Farm Bureau

Executive Committee

March 20, 2022

Mr. Kevin Goodwin

Michigan Department of Environment, Great Lakes, and Energy

Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). On behalf of the farmer members of Arenac County Farm Bureau, we are writing to express our concerns about this Report. Farmers in Arenac County work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live. In this draft Report, MDEGLE has added Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

The Nature Conservancy. 2018. Saginaw Bay Water Replenishment. Retrieved from: Conservationgateway.org/ConservationByGeography/NorthAmerica/United States/michigan/projects/Pages/SagBayGWR.aspx.

However, this decision is based on too few data points, outdated studies and models, and not enough assessment of water quality trends over time. We are also concerned because MDEGLE has stated it does not intend to develop or implement a plan to collaborate on reducing nutrient losses into Saginaw Bay like has been done in the Western Basin of Lake Erie watershed, or to use the Category 5 alternative designation available for restoration approaches that are more practical than designating a Total Maximum Daily Load (TMDL) limit in the Bay. Instead MDEGLE has said the agency will move directly to a TMDL to implement regulations of water quality. This essentially removes the ability to find collaborative, proactive ways to reduce nutrient loading in the watershed, implements regulations that punish farmers for the good activities they have already implemented, and could require practices that both cost farmers more time and money and may also not be as effective as voluntary conservation programs designed to work with each farm's needs.

We urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired, so more information about nutrient loading and trends can be collected and sources can be identified to better improve water quality. Alternatively, if Saginaw Bay is designated as Impaired, we urge MDEGLE to work with farmers, regulated facilities, municipalities, and residents to develop a meaningful plan to address the Impairment and prevent the need for a TMDL in the watershed.

Studies and Data Collection in the Saginaw Bay and Watershed

Currently, there is no significant water quality data collection in the Saginaw Bay and surrounding watersheds, unlike the Western Lake Erie Basin. This creates many challenges to the stakeholders in the region because scientifically sound water quality data is an important component to any management strategy.

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invasive species on a G...

PDF | Excessive nutrient loads and species invasions pose significant threats to productivity and function of Gr...

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Conclusion

Arenac County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its

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Sincerely,

Arenac County Farm Bureau

Kenneth G. Daniels, Chair

Victor Daniels

Arthur Rivard

Byron Fogarasi

Hugh Bilow

Ryan Stokosynzski

Robyn Fogarasi

Appendix E: Public Comments Received

March 23, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). On behalf of the farmer members of Genesee County Farm Bureau, we are writing to express our concerns about this Report. Farmers in Genesee County work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live. In this draft Report, MDEGLE has added Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

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Conservation Activities in Saginaw Bay

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Conclusion

On behalf of the Genesee County Farm Bureau members our county board of directors urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration

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Sincerely,

Phillip Jelinek, President
Genesee County Farm Bureau

Appendix E: Public Comments Received

March 24, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). On behalf of the farmer members of Gratiot County Farm Bureau, we are writing to express our concerns about this Report. Farmers in Gratiot County work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live. In this draft Report, MDEGLE has added Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

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Conclusion

Gratiot County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration plan incorporating adaptive management

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Sincerely,

Eric Whitford, President

Gratiot County Farm Bureau

Appendix E: Public Comments Received

March 25, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

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Conservation Activities in Saginaw Bay

If MDEGLE rushes to designate an Impairment and then fails to develop a plan to address the Impairment before then designating a TMDL affecting this entire watershed, it will impact 22 counties in Michigan's lower peninsula as part of Saginaw Bay's watershed. This not only ignores the positive benefit farmers have had through their conservation efforts, but also disincentivizes further participation in these voluntary, proactive programs by threatening them with regulatory limits and penalties.

Farmers in the Saginaw Bay counties have implemented proactive, voluntary practices to minimize nutrient and sediment loss on a wide scale. Both through Farm Bill conservation programs and the Michigan Agriculture Environmental Assurance Program (MAEAP), farmers have continued to do good work despite weather and financial challenges and during a global pandemic. For instance, since 2016, farmers in Saginaw Bay counties have restored wetlands and highly erodible lands through the Conservation Reserve Program at an annual average of nearly 70,000 acres (data provided by Farm Service Agency). Farmers have also implemented practices to protect soil health and water quality on working lands in the Saginaw Bay watershed: since 2016, farmers participating in Farm Bill conservation programs through the Natural Resources Conservation Service have implemented residue and tillage management and reduced or no till on nearly 45,000 acres. They have planted cover crops on more than 228,000 acres. They have implemented nutrient management plans and precision agriculture for nutrient loss reduction on nearly 137,000 acres, and increased crop rotations on more than 5,000 acres (data provided by the Natural Resources Conservation Service).

While there is some overlap between participation in MAEAP and Farm Bill programs, MAEAP verified farmers have implemented many practices not captured by Farm Bill program participation, and the MAEAP program has calculated nutrient and sediment loss reduction successes from practices these farmers have used. In the last 5 years alone, farmers in Saginaw Bay counties who have completed MAEAP verification have completed nutrient management plans on nearly 500,000 acres. They have planted more than 1.3 million linear feet of buffer and filter strips. They have planted more than 123,000 acres of cover crops. They have reduced or eliminated tillage or planted grass cover on more than 435,000 acres. Together these practices have kept on fields and out of waterways more than 730,000 tons of sediment, more than 1.8 million pounds of phosphorus, and nearly 2.6 million pounds of nitrogen (data compiled from MAEAP Annual Legislative Reports, 2017-2021). Thousands more farmers in Saginaw Bay counties are working toward MAEAP verification as well, implementing practices that protect water quality and soil health that have not been counted in these totals.

Conclusion

Montcalm County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration plan incorporating adaptive management

tailored to specific circumstances and working with stakeholders in the watershed to successfully implement it. Farmers in the Saginaw Bay watershed have already shown we are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners in Saginaw Bay.

Sincerely,

Breann Bonga, County President
Lane Grieser, Vice President
Brandon Gibson, Third Member
Nathan Peterson, Director
Cody Christensen, Director
Gregory Heinze, Director
Brandon Kade, Director
Patrick Outman, Director

Montcalm County Farm Bureau Board of Directors

Appendix E: Public Comments Received

March 25, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

Dear Mr. Goodwin,

Thank you for the opportunity to provide comments on the Michigan Department of Environment, Great Lakes, and Energy (MDEGLE) *2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report* (Report). On behalf of the farmer members of Sanilac County Farm Bureau, we are writing to express our concerns about this Report. Farmers in Sanilac County work hard to provide a safe, affordable, and abundant supply of food, fiber and fuel, and to protect the environment in which we farm and live. In this draft Report, MDEGLE has added Saginaw Bay to its list of Impaired waters because of nuisance algae and cyanobacteria blooms and increased algae growth due to excessive nutrients entering the Bay. This proposed designation affects most of 22 counties in Michigan in Saginaw Bay's watershed:

The Nature Conservancy. 2018. Saginaw Bay Water Replenishment. Retrieved from: https://www.conservationgateway.org

However, this decision is based on too few data points, outdated studies and models, and not enough assessment of water quality trends over time. We are also concerned because MDEGLE has stated it does not intend to develop or implement a plan to collaborate on reducing nutrient losses into Saginaw Bay like has been done in the Western Basin of Lake Erie watershed, or to use the Category 5 alternative designation available for restoration approaches that are more practical than designating a Total Maximum Daily Load (TMDL) limit in the Bay. Instead MDEGLE has said the agency will move directly to a TMDL to implement regulations of water quality. This essentially removes the ability to find

collaborative, proactive ways to reduce nutrient loading in the watershed, implements regulations that punish farmers for the good activities they have already implemented, and could require practices that both cost farmers more time and money and may also not be as effective as voluntary conservation programs designed to work with each farm's needs.

We urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired, so more information about nutrient loading and trends can be collected and sources can be identified to better improve water quality. Alternatively, if Saginaw Bay is designated as Impaired, we urge MDEGLE to work with farmers, regulated facilities, municipalities, and residents to develop a meaningful plan to address the Impairment and prevent the need for a TMDL in the watershed.

Studies and Data Collection in the Saginaw Bay and Watershed

Currently, there is no significant water quality data collection in the Saginaw Bay and surrounding watersheds, unlike the Western Lake Erie Basin. This creates many challenges to the stakeholders in the region because scientifically sound water quality data is an important component to any management strategy.

There are only three active stream gauges in the watershed and only five active monitoring sites in the Bay itself. Comparatively, as of 2021 Heidelberg University has 21 sampling stations in Ohio and southeastern Michigan and eight stations throughout the western portion of Lake Erie, most of which were installed before Lake Erie was designated as Impaired. The need for additional monitoring in the Bay is especially important given the unique nature, discussed in the studies below, of the inner bay showing some signs of elevated nutrients but the outer bay being low in nutrients. While monitoring does not provide immediate answers or solutions, it provides insight into potential management techniques.

There have been some previous studies on Saginaw Bay. These studies reveal several important characteristics and questions that should impact management decisions for the Saginaw Bay. A recent study indicates while there is concern about the eutrophic (high-nutrient) status of the inner bay, the outer bay is oligotrophic (low-nutrient). There is potential that water from the outer bay has a diluting effect on the blooms in the inner bay. How do potential management strategies with the goal of reducing nutrient inputs to the inner bay, impact the low-nutrient outer bay?

As for sources of phosphorous, another study estimates that phosphorous entering the Bay comes from a wide variety of sources: point source and non-point source, urban and rural. While not earth-shattering information, this indicates there are many opportunities for collaboration on voluntary conservation efforts, most of which aren't impacted by a TMDL according to MDEGLE's FAQ document on E coli TMDLs (i.e. non-point source management).

The impact of invasive species on the Saginaw Bay also cannot be understated. Another research paper suggests that the concentration of nutrients in the inner bay is likely caused by invasive Zebra and Quagga mussels and that another important species in the lake are more impacted by invasive species (especially the alewives) than elevated nutrient levels. This same research paper suggests that there could be unintended consequences for species in the Saginaw Bay if nutrients drop too much, which should be considered in management decisions.

Conservation Activities in Saginaw Bay

If MDEGLE rushes to designate an Impairment and then fails to develop a plan to address the Impairment before then designating a TMDL affecting this entire watershed, it will impact 22 counties in Michigan's lower peninsula as part of Saginaw Bay's watershed. This not only ignores the positive benefit farmers have had through their conservation efforts, but also disincentivizes further participation in these voluntary, proactive programs by threatening them with regulatory limits and penalties.

Farmers in the Saginaw Bay counties have implemented proactive, voluntary practices to minimize nutrient and sediment loss on a wide scale. Both through Farm Bill conservation programs and the Michigan Agriculture Environmental Assurance Program (MAEAP), farmers have continued to do good work despite weather and financial challenges and during a global pandemic. For instance, since 2016, farmers in Saginaw Bay counties have restored wetlands and highly erodible lands through the Conservation Reserve Program at an annual average of nearly 70,000 acres (data provided by Farm Service Agency). Farmers have also implemented practices to protect soil health and water quality on working lands in the Saginaw Bay watershed: since 2016, farmers participating in Farm Bill conservation programs through the Natural Resources Conservation Service have implemented residue and tillage management and reduced or no till on nearly 45,000 acres. They have planted cover crops on more than 228,000 acres. They have implemented nutrient management plans and precision agriculture for nutrient loss reduction on nearly 137,000 acres, and increased crop rotations on more than 5,000 acres (data provided by the Natural Resources Conservation Service).

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Conclusion

Sanilac County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration plan incorporating adaptive management

tailored to specific circumstances and working with stakeholders in the watershed to successfully implement it. Farmers in the Saginaw Bay watershed have already shown we are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners in Saginaw Bay.

Sincerely,

Darcy Lipskey, Sanilac County Farm Bureau President

John Bowsky, Nick Stone, Scott Thomas, Katelyn Frostic, Dan Hale, Cole Wood, Jeff McConnachie, Brennan Burch, Jarred Shinn, Blake Gordon

Sanilac County Farm Bureau

March 24, 2022

Mr. Kevin Goodwin
Michigan Department of Environment, Great Lakes, and Energy
Sent via email to goodwink@michigan.gov

Re: 2022 Draft Water Quality and Pollution Control in Michigan 2022 Sections 303(d), 305(b) and 314: Integrated Report

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The Nature Conservancy. 2018. Saginaw Bay Water Replenishment. Retrieved from: https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/michigan/projects/Pages/SagBayGWR.aspx.

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Conclusion

Oakland County Farm Bureau members urge MDEGLE to reconsider its plan to designate Saginaw Bay as Impaired. More research and data collection is needed to provide an accurate picture of not only how the water quality in Saginaw Bay is changing over time, but also what sources need to be included in a plan to reduce nutrient loading into the Bay from its watershed. If Saginaw Bay is designated as Impaired, MDEGLE must use the tools at its disposal to help prevent the need for a TMDL, including either developing a plan like the Domestic Action Plan in the Western Lake Erie Basin, or assigning Saginaw Bay to Category 5 alternative to develop a restoration plan incorporating adaptive management

tailored to specific circumstances and working with stakeholders in the watershed to successfully implement it. Farmers in the Saginaw Bay watershed have already shown we are willing to participate in programs and practices to protect soil health and water quality. We want to continue to be part of the solution with all partners in Saginaw Bay.

Sincerely,

Glen Mitchell, President of Oakland County Farm Bureau

On behalf of Oakland County Farm Bureau members