MICHIGAN ENVIRONMENTAL COUNCIL

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Christine Alexander, Manager
Permits Section, Water Resources Division
Michigan Department of Environment, Great Lakes, and Energy
525 W. Allegan Street
Lansing, MI
48909

Ms. Alexander,

The Michigan Environmental Council and undersigned organizations submit the following comments on the Draft 2020 National Pollutant Discharge Eliminations System (NPDES) Wastewater Discharge General Permit for Concentrated Animal Feeding Operations.

The CAFO NPDES permit is an important tool in combating excessive nutrient and bacterial loading in Michigan's waters and we appreciate the opportunity to comment on the draft language. Contrary to the assertions by industry groups, the draft permit represents critical steps forward for increasing the environmental standards for permitted entities. We also strongly support the increased reporting requirements outlined in the draft permit. Increased reporting and tracking is foundational to establishing long term environmental sustainability and accountability for the industry and, up until this draft permit, lacked the robustness to protect Michigan's waters. The following comments pertain to several of the most significant and high priority changes within the draft permit.

1. **The Michigan Phosphorus Risk Assessment**

We applaud the draft permit language requiring the use of the Michigan Phosphorus Risk Assessment (MPRA) when determining the risk and restrictions for manure application. The MPRA is a recognized, accepted tool that holistically accounts for field-specific parameters that influence P transport. Similar to other P risk indices, MPRA takes a more comprehensive approach to assessing risk of P transport from agricultural fields. Ohio already utilizes a P Index for this purpose and is in the process of revising and finalizing a more robust version.

The current (2015) CAFO permit allows permitted entities to select between either numeric application criteria, soil test phosphorus (STP), or the MPRA. The MEC and several undersigned groups have long expressed concern with the use of only STP and questioned its effectiveness for estimating P transport risk. While P losses may adequately correlate to STP in select circumstances, the use of a numeric screening tool compared to an index approach (i.e. MPRA) is generally viewed as insufficient. In research evaluating the effectiveness of STP versus a P Index Sharpley et al (2012) concludes, "Research supports the view that STP thresholds are poorly correlated with P loads from agricultural fields and strategies based on such limits typically will perform poorly compared with P Indices. Consequently, the use of a STP threshold rather than an effectively designed P Index cannot be justified to manage fields on a P loss and water quality perspective".[1]

The MPRA is not a new tool. Despite the strong pushback from industry groups for the inclusion and use of MPRA in the draft permit, it is important to remember that this tool is included in the current CAFO permit. The MEC and undersigned organizations heard minimal pushback for the inclusion of MPRA from industry in the current permit. The use of MPRA has also garnered pushback due to language in the NRCS Technical Note that the tool should not be used for regulatory purposes. However, the current permit already allows farms to use MPRA for NPDES permit compliance in lieu of the numeric STP standard. So utilizing MPRA for compliance in the proposed draft permit is neither unique nor unfounded.

The tool also recognizes that farms are unique and should not be required to implement a one size fits all approach for BMPs. We believe the MPRA could be advantageous for farmers as it allows flexibility in what practices and management strategies are implemented to achieve compliance.

We support the widespread use of MPRA but offer these suggestions to the draft permit:

- The transition to MPRA should occur immediately rather than allowing the current one year lag in implementation.

- We believe it is critical for the Department to identify a plan to collect the necessary in-field data for model validation and verify the efficacy of the MPRA in limiting P transport. This data is critical for long term justification for the use of MPRA as an appropriate risk assessment tool.

- According to Page 16, if a field is located in a watershed with an N or P impairment (approved TMDL) then CAFO waste can only be applied if the MPRA score is LOW. We support the restriction of manure application in TMDL

[1] Shapley, A., D Beegle, C. Bolster, L. Good, B. Joern, Q. Ketterings, J. Lory, R. Mikkelsen, D. Osmond, and P. Vadas. 2012. Phosphorus Indices: Why we need to take stock of how we are doing. Journal of Environmental Quality-Special Section (41) 1711-1719.

areas, but question if MPRA is an appropriate tool for assessing nitrogen losses from fields. MPRA was not built to account for nitrogen. The tool may be adequate in estimating the transport of nitrogen (as P is likely a sufficient proxy for N in this tool), however MPRA almost certainly does not account for differences in manure source relevant to N and P. For instance, if a field is located in a N impaired watershed but has access to a relatively high N:P manure they may be permitted under MPRA to apply the manure despite being located in a N impaired watershed. We encourage to Department to evaluate the effectiveness of MPRA to protect against N losses.

- The MPRA should be applied to fields receiving manure through the transfer/manifesting process. Draft permit language allows a Bray P1 test up to three years old to be used as justification for additional manure on fields receiving manifested manure. We encourage the Department to either reduce the allowable soil test timeframe to one year or require the use of MPRA for manure recipients. Absent this change the result of this permit could be over application of manure through manifesting rather than over application on CAFO-owned fields. Similarly, we believe for consistency the MPRA requirements should apply to recipient fields located in TMDL and/or impaired watersheds. This permit should be equally protective of water quality regardless of who is applying manure.

2. Reporting requirements and transparency

The draft permit takes several steps to increase transparency and reporting for permitted facilities. The expanded requirements both in CNMP reporting (Pg 18) and manifesting are two good examples of positive steps by the Department. We also appreciate the expanded communication and reporting requirement to the local unit of government in the event of an overflow or discharge (pg 23). A fundamental purpose of this permit is to safeguard environmental and human health. Reporting discharges to local health officials within 24 hours is a commonsense step to protect residents and local communities. We recognize the added layer of time and resources for both producers and the Department to administer a permit with increased reporting. However, these measures are critical to provide additional information to both the Department and the general public who have an obvious stake in the health of Michigan's waters.

We offer one critical recommendation:

- Any change in annual cropping system, spreading plans, or tillage should be submitted to the Department, along with soil tests on the receiving fields, for approval before such changes take place.

3. Manifesting

We recognize that the process of manifesting is, at times, a necessary activity for livestock producers. However, this process currently has minimal oversight from the Department. The proposed manifesting changes will provide the Department with important information about where manure is transferred in order to better safeguard environmental and human health.

We support the additional reporting and oversight but offer one critical recommendation:

- Section C(9)b (pg 26) requires that prior to manifesting CAFO waste the generator shall receive a Bray P1 soil test from the recipient. We believe the MPRA requirements discussed elsewhere in the draft permit should also apply to the recipient of manure in addition to the generator. If the goal of instituting MPRA is for the protection of water quality than it seems reasonable to apply the standard to all manure applications, not only those on a permittee's property.

4. TMDL Waters

While we appreciate the attention to TMDL waters within the draft permit, however we respectfully disagree with the assumption that compliance with the permit is assumed to be sufficient with limiting/improving impairments. TMDLs are numeric criteria but the language in the draft only requires permittees to implement technology standards (i.e. BMPs) with no mandate for numeric sampling to ensure that progress is made towards to the TMDL.

We offer two modifications to the TMDL Waters language:

- The permit and guidance document should include criteria regarding regular edge-of-field and instream sampling to ensure that the numeric standards of the TMDL are met through the implementation of BMPs
- The guidance document should be included within the permit for EPA review and approval. TMDLs are federally approved and we believe EPA should be reviewing the state plans for achieving TMDL compliance under the CAFO permit.

5. Treatment Systems- Digesters

Under Section C, *Treatment Systems* CAFOs may include the use of digester-based systems for waste treatment. We want to remind the Department that while the use of a digester may reduce pathogen loads, it does not treat or eliminate nutrients. The draft permit is intended to cover the discharge from CAFO structures and field application; it

should not be a blanket discharge permit from a digester. These systems are functionally no different than those found at municipal or other industrial wastewater processors. As such, a CAFO utilizing a digester should be required to obtain digester-specific permits similar to other processors.

6. **Winter Application**

Climate change has resulted in more pronounced and sudden swings in winter conditions resulting in mid-season thaws and rainfall events. For this reason we support the decision by the Department to reign in the use of winter application as it poses an unnecessary environmental risk in this rapidly changing climate.

We support the decision to prohibit manifesting from January-March but offer one critical recommendation:

- The end of March is consistently one of the most risky times to apply manure given the frequent and dramatic swings in temperature and ground conditions. We urge the Department to reconsider allowing manure application in the second half of March.

7. **Storage Capacity- Evaporation**

We support the removal of an evaporation factor as it relates to calculating lagoon storage capacity. Rates of evaporation are inherently inconsistent based on the composition of the lagoon. For example, the evaporation from a lagoon that was void of manure but received an inch of rain will be much different than a lagoon that is primarily manure. Agricultural groups will contend that the total elimination of this factor is out of alignment with NRCS 313 Waste Storage Standards. However, the "Considerations" section for NRCS 313 acknowledges that evaporation rates are impeded in liquid and slurry systems that use organic bedding if/when a crust forms on the storage surface. We believe the Department made the correct and conservative decision to remove the evaporation factor given the inconsistent evaporation rates due to both lagoon composition (i.e. water runoff vs. manure) and the presence of the 'crust' noted in the NRCS 313 standard.

We appreciate the opportunity to comment. Please contact me with any questions related or our position with the draft permit. tom@environmentalcouncil.org or 517-999-0411

Sincerely,

Tom Zimnicki, Agriculture Policy Director
Michigan Environmental Council

Lisa Wozniak, Executive Director
Michigan League of Conservation Voters

Joel Brammeier, President & CEO
Alliance for the Great Lakes

Jennifer McKay, Policy Director
Tip of the Mitt Watershed Council

Liz Kirkwood, Executive Director
FLOW- For Love of Water

Margrethe Kearney, Senior Staff Attorney
Environmental Law and Policy Center

Nathan Murphy, State Director
Environment Michigan

Gail Philbin, Director
Michigan Sierra Club

Lynn Henning, Regional Associate
Socially Responsible Agricultural Project

Pam Taylor
Environmentally Concerned Citizens of South Central Michgian