



Date: 4-19-22

To: Mr. Doug Beason, Florida Department of Environmental Protection

From: John Cassani, Calusa Waterkeeper

Re: GENERIC NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES) PERMIT FOR DISCHARGES OF POLLUTANTS TO SURFACE WATERS OF THE STATE GENERATED BY EXPERIMENTAL TECHNOLOGIES FOR CONTROL OF HARMFUL ALGAL BLOOMS DEP Form 62-621.300(9)(a)

Mr. Beason: Please consider the following concerns on behalf of Calusa Waterkeeper regarding the Department's proposed generic NPDES permit for testing experimental technologies to control harmful algal blooms.

- Asking the applicant to self-report adverse incidents will not adequately protect the public resource as the purpose of testing novel algaecides is develop and have the state approve a marketable product.
- The proposed permit language states *"This permit does not authorize the permittee to cause any adverse impact to, or "take," any state listed species and other regulated species of fish and wildlife."* It is unreasonable to ask applicants likely having no experience with "listed" species to restrict their research if they "observe" "listed" species of plants or animals. Similarly, applicants are unlikely to observe an adverse impact to plants or animals as part of the benthos or for example fossorial fish that cannot be observed from the surface.
- The proposed permit language states: *"(3) An activity that reduces the viability of the seagrass community; or (4) An activity that alters the benthic topography and requires authorization under Chapter 253 and Part IV of Chapter 373, F.S."* It's very unlikely and unreasonable to expect that the applicant will know if the novel algaecide reduces the viability of seagrass. The definition of "reduces the viability" is so undefined that it cannot be reasonably applied or enforced. Obviously missing from this provision is acknowledgement of other important components of aquatic ecosystem structure and function such as macroinvertebrates that could be impacted by the application of novel and untested algaecides in public waters.
- The proposed permit language says nothing about documentation of impacts to critical components of aquatic community structure. Impacts to phytoplankton, zooplankton or

periphyton communities can fundamentally alter or change ecosystem function and why novel algaecides should be tested in controlled settings to determine their toxicity prior to application of the product to public waters.

- The proposed permit language states under Part III Monitoring Requirements: *“ If the experimental technology includes application of pesticide products or other chemical products, all permittees shall use the amount of product and frequency of product application necessary to control the target algae using equipment and application procedures appropriate for the task.”* This provision essentially allows the use of any quantity of product based on the applicant’s perception of “control”. Reporting adverse incidents after application is another example of how damage could be done to the public resource as part of what this permit would allow based on unreasonable expectations of the applicant.
- *The proposed language states: “Pursuant to Rule 62-302.500(1), F.A.C., the discharge shall not contain components that, alone or in combination with other substances or in combination with other components of the discharge: (5) Are present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant, locally occurring, wildlife or aquatic species, unless specific standards are established for such components in subsection 62-302.500(2) or Rule 62-302.530, F.A.C.; or”.* How would the applicant know if carcinogenic, mutagenic, or teratogenic substances are components of the discharge or even at concentrations that are present in untested chemicals or even whether their concentrations are high enough to be carcinogenic etc., especially if the applicant can use whatever concentration is necessary to “control” the harmful algal bloom that may be present? This may be one of many reasons why no other generic permit of this type has been issued in the United States where testing of novel algaecides is done outside of a laboratory setting.

For the reasons stated above, Calusa Waterkeeper would respectfully ask FDEP to withdraw the permit language and begin consulting with EPA Region 4 regarding their oversight responsibility on this matter. Having EPA verify FDEP’s intent that is consistent with other federal regulations such as FIFRA or CWA before drafting a revised rule and that would address our concerns on unregistered and unlabeled products for use in public waters would be advisable.

Thank you for your consideration.

John Cassani, Calusa Waterkeeper

April 21, 2022

Florida Department of Environmental Protection

Delivered via Email

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Re: Proposed generic NPDES permit for new experimental technologies to combat harmful algae blooms

Good afternoon,

We would like to express our concerns about Florida Department of Environmental Protection's (FDEP) proposed generic National Pollutant Discharge Elimination System (NPDES) permit for new experimental technologies to combat harmful algae blooms (HABs). While there is an obvious need to respond quickly to HABs, we are concerned that the scope of this permit is overly broad and may lead to unintended consequences in our waterways.

General NPDES permits are intended to streamline the NPDES permitting process by covering multiple dischargers with similar operations and types of discharges, thereby alleviating the scrutiny of the individual permitting process. NPDES regulations state that operations covered under generic permits must involve the **same or substantially similar types of operations** and **discharge the same types of wastes**, among other requirements (F.A.C. 62-620.710). Due to the recent proliferation of HABs, companies have proposed a huge variety of "solutions" for treating harmful algae blooms, ranging from phosphorus sequestration products, to aerators, and many more. FDEP's proposed permit would cover "Experimental Technologies" which is broadly defined as "new or improved technologies or products that have been demonstrated to be technically feasible under certain conditions but have not been widely used under the conditions that exist at harmful algal bloom management areas." This definition is incredibly broad and could conceivably encompass a huge number of different technologies and products ranging from chemical to physical to biological treatments – all of which could have vastly different impacts on waterways. As a basis for comparison, current general NPDES permits have been issued for activities including municipal separate storm sewer systems, stormwater discharge from construction activities, and domestic wastewater facilities – all activities and facilities that have limited and predictable types of discharge. For example, the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities lists specific types of discharges that are allowed under the permit (such as waters used to control dust, air conditioning condensate, and pavement washwaters that do not contain detergents, leaks, spills of toxic or hazardous materials) as well as discharges that are not

allowed under the permit (such as fuels, oils, or other pollutants from vehicle and equipment operation and maintenance or soaps, detergents, solvents, or other cleaners). Additionally, while the draft proposed permit does require testing for acute toxicity following discharge into a waterway, this type of preliminary testing should occur in a controlled setting *before* an experimental technology is used in a public waterway.

Furthermore, “Adverse Incidents” are expected to be self-reported by the entity testing the experimental technology – calling into question whether adverse incidents would ever be reported. Asking the applicant to self-report adverse incidents will not adequately protect the public resource since applicants would be reluctant to self-report issues that may expose them to liability or illustrate issues with their product.

The proposed permit language also states that an activity is not authorized under this generic permit if it “reduces the viability of the seagrass community” or “alters the benthic topography and requires authorization under Chapter 253 and Part IV of Chapter 373, F.S.” It is very unlikely that an applicant will know if a novel algaecide will reduce the viability of seagrass since it has not been extensively tested. The definition of “reduces the viability” is so vague that it cannot be reasonably applied or enforced. Obviously missing from this provision is acknowledgement of other important components of aquatic ecosystem structure and function such as macroinvertebrates that could be impacted by the application of experimental and untested algaecides in public waters. The proposed permit language says nothing about documentation of impacts to critical components of aquatic community structure. Impacts to phytoplankton, zooplankton, or periphyton communities can fundamentally alter ecosystem function, which is why novel algaecides should be tested in controlled settings to determine their toxicity prior to application of the product to public waters.

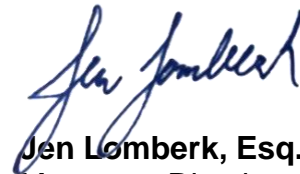
Under Part III Monitoring Requirements, the proposed permit language states “If the experimental technology includes application of pesticide products or other chemical products, all permittees shall use the amount of product and frequency of product application necessary to control the target algae using equipment and application procedures appropriate for the task” (emphasis added). This provision essentially allows the use of any quantity of product based on the applicant’s perception of “control” of the target algae, which may impact other non-target species.

When questioned about safeguards for projects that could be covered under this proposed permit, FDEP staff referred Waterkeepers to the “Control Measures” referenced in the draft proposed permit. The definition for “Control Measure” states that “Control measures shall comply with manufacturer specifications, industry standards and recommended industry practices related to the experimental technology...” However experimental technologies are, by

definition, *experimental* and as such there will not be any manufacturer specifications or industry standards to serve as guard rails.

Based on an inquiry to EPA Region 4, no other state has issued a general NPDES permit for experimental technologies to combat harmful algae blooms, perhaps due to some of the concerns that we have. Individual permits provide a level of oversight and scrutiny that is not afforded by general permits in order to minimize the unintended negative consequences of activities that discharge into our waterways.

Thank you for your consideration.



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