

OCT 22 2019

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Jon Jennings
WA State Department of Ecology
P.O. Box 47696
Olympia, WA 98504-7696



RE: Comments on the combined National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for *Zostera japonica* management on commercial clam beds in Willapa Bay

Dear Mr. Jennings:

Please accept the following comments for the above referenced NPDES permit. Twin Harbors Waterkeeper (THW) is a new 501(c)3 non-profit organization based in Grays Harbor and Willapa Bay, Washington. The mission of THW is to protect the water quality of the Chehalis and Willapa Watersheds so that our local waterways remain swimmable, fishable, and drinkable for future generations through education, community engagement and advocacy. THW is a member of the Waterkeeper Alliance, an international network of over 350 other Waterkeepers that are patrolling and protecting more than 2.5 million square miles of rivers, lakes, and coastal waterways on six continents.

Our questions and comments are as follows:

1. Why was this permit issued with no changes? Typically, the Fact Sheet for a permit reviews permit holder compliance with the permit and discusses any compliance issues with the permit. However, the Fact Sheet for this permit has no assessment of permit compliance. Did Ecology conduct an assessment of permit compliance? If so, what is Ecology's assessment of permit compliance?
2. For the past permit cycle, did Ecology receive and review a Discharge Management Plan (DMP) from each of the permit holders? Did Ecology confirm that the action thresholds for spraying japonica that were listed in the DMPs were met? Was the spray period of April 15-June 30 complied with? Did Ecology confirm that no imazamox was applied to *Z. marina*? Was the 10-meter buffer adhered to? Were the photos useful, and did they show evidence of compliance? Did all of the permit holders file the pre-treatment plans and annual reports?
3. Please require that the DMPs be available for public review in the new permit cycle.
4. The Pesticide Application Requirements section is not adequate. Please specify what spray equipment is allowed to perform the spraying, and what equipment is not allowed. It states to "not apply imazamox into any drainage that contains *Z. marina* and is moving water off the treatment site." Who will determine this, and how?
5. With regard to tidal regimes: why is only one hour of dry time required as a condition of application? Please consider increasing the amount of dry time required after application.
6. In order to avoid harm to *Z. marina*, please require that no spraying be allowed near or over pools where it exists, and require that no spray be allowed near drainage swales containing *Z. marina*.
7. With regard to application dates: please shorten the application window so that application is allowed between late April – early June, when application is likely to be the most effective (Patten, Journal of Aquatic Plant Management 2015, #53: pp185–190).

8. With regard to permit buffers: it is difficult to be confident that there are enough conditions in this section. Please consider requiring the use of food-grade dye to mark the buffer areas, and/or the use of temporary flagging to mark the boundaries. How else will applicators know where the application limits are?
9. With regard to monitoring requirements: in order to understand whether the buffer requirements are protective of adjacent vegetation – please require exact monitoring requirements. We suggest that vegetation plots in the buffer be undertaken to document whether vegetation is being killed in the buffer. Please require vegetation plots to measure for *zostera spp.* plant kill every 250 feet in the buffer one week after the herbicide was applied, and for results of such monitoring to be a required component of the annual report.

Finally, we would like to know what densities of *Z. japonica* cause problems for commercial growers in Willapa Bay. This information would likely be helpful during the development of future permits. We appreciate the opportunity to comment on this important permit.

Sincerely,



Lee First
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