From: Rone Brewer
To: ECY RE Japanese Eelgrass Permit Comments
Date: Tuesday, October 30, 2012 5:26:01 PM

To: Kathy Hamel, Washington Department of Ecology
From: Ross Barkhurst, Washington Waterfowl Association; 360.208.4932
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The Washington Waterfowl Association (WWA) is responding to your request for comments on the advisability of developing a general permit for application of Imazamox to manage Japanese eelgrass (*Zostera japonica*; Zj) on commercial clam beds in Willapa Bay.
We have several concerns about proceeding with such a permit:

1) The term "commercial clam beds" is not defined. Without clear definition of privately versus publicly owned lands underlying the “commercial clam beds” removal of Zj could occur on a relatively extensive area of publicly owned, commercially leased tidelands. Over 1,000 acres are already leased for clam beds and over 2,000 acres for shrimp in Willapa Bay.

2) Without further understanding and documentation of current “baseline” conditions, the impacts of widespread spraying and loss of Zj on forage fish, waterfowl, shorebirds, raptors, prey, and forage items cannot be determined and would never be known should widespread spraying of Imazamox occur on Willapa's public tidelands. Raptors known to be present in the spray area include bald eagles, harriers, at least two species of falcons. Three species of waterfowl, American Widgeon, Pintail, and Pacific Brant, are historically and/or currently below the North American Waterfowl Management Plan (NAWMP) goals and frequent Willapa tidelands, especially the nearshore areas which comprise much of public tideland inventory. A short food web, Zj-fish/eggs-waterfowl-raptor, exists in Willapa Bay and could be impacted indefinitely under a widespread and repeated spraying regime.

3) Apparently, test spraying of imazamox has been occurring in Willapa Bay under the auspices of a local consultant. This individual has testified publicly that he can find "no evidence of significant uptake" of Zj by waterfowl in Willapa. This is patently and scientifically incorrect as proven by formal studies in published papers in a similar setting with the same species in Boundary Bay, British Columbia, and as documented by waterfowl hunters in Willapa Bay. In particular, a WWA member has sampled hundreds of waterfowl gizzard/stomach contents from Willapa Bay and found Zj in nearly all of them. Without significant impartial oversight, test spraying or self monitoring by an individual already in denial of this basic fact should not form the basis for issuing or monitoring an NPDES permit, risk assessment, or an Environmental Impact Statement (EIS) for that matter. The ability to detect other more subtle risks and actual impacts after such blatant pre-judgement must be questioned. The results seen by our member, Mr. Barkhurst, corroborate the results of the Baldwin and Loveron study of 1994 in Boundary Bay. In short, eighty-five percent of the food uptake of widgeon in these bays may be Zj. Almost fifty percent of the intake by pintails may be Zj rhizomes. Pacific Brant have been found to eat Zj as well as the native eelgrass, *Zostera marina*. All three of these species are currently at population levels below the long term goals of the new North American Waterfowl Managment Plan (NAWMP).

4) Impartial investigation and documentation is necessary. There should be little relationship between individuals within Ecology, the State Weed Control Board, or Shellfish Growers, and those completing the information and data gathering for the EIS.

Whereas we are told that there is no relationship between the actions of the State Weed Control Board and the Department of Ecology, evidence was to the contrary with an Ecology representative as a member of the Weed Board Advisory Committee involved in the recommendation of making Zj a noxious weed and involved in groundwork for the draft NPDES permit for Imazamox at the time. In addition, a draft "risk assessment" report apparently under the auspices of a test spray supervisor was sent back to its publisher months ago "to correct typos". This report needs to be provided for public review and scientific confirmation. Please see the testimony of Ross Barkhurst before the Weed Control Board last November for details of more potential and likely problems with Zj removal; these are a public record and need not be repeated here.

There is now a request before the State Weed Control Board to "make *Zostera japonica* a noxious weed everywhere". This is the direction taken by the noxious weed boards and Ecology for the past two years. This is a scenario that if allowed to unfold may present a risk to our environment in general and, in particular, to waterfowl and their food web. Clearly it is not appropriate to develop a general permit for widespread spraying of the aquatic herbicide Imazamox in Willapa Bay without much more baseline data and information, and without which we would be unable to detect impacts. Baseline knowledge of the Willapa Bay marine food web must be gathered and incorporated into any EIS.

5) Reliable waterfowl counts have not been conducted at Willapa Bay, during appropriate times of the year, for ten years or more. We have asked repeatedly for the USFWs waterfowl count data during this past year and it has not been forthcoming. In any event it would be outdated and we understand it was not site-specific within the bay. At the same time the Washington Department of Natural Resources has provided that temporal and spatial data for waterfowl in Willapa "is not needed". Further they have provided that Willapa Bay may not be designated as a Marine Spatial Planning Area for our state. It would seem neither WDFW nor the Department of Ecology were consulted prior to this opinion. Surely under the subject circumstances some spatial planning is necessary for Willapa Bay.
A new piece of information has been gleaned from the Baldwin and Lovvern study which bears mention here. It was found that when Zj is exhausted as a food source in winter the ducks must relocate to other food sources. While nearby agricultural crops are nearby and fulfill the dietary requirements in the Boundary Bay area, there are essentially no such crops in the Willapa area, resulting in significant energy usage by waterfowl as they relocate. This is why most birds leave Willapa when the Zj food source is gone. Continuous personal observation every year over a ten year period has shown this to be the case. There is not a surplus of Zj and we know of no credible basis for determining otherwise

Wigeon on Eelgras Bed in Willapa Bay - 10/2012

In summary it can be readily inferred that Willapa Bay and some of its key wildlife inhabitants could be impacted by widespread spraying of Imazamox across the Willapa tidelands. Fish and wildlife use of Zj in Willapa Bay remains unquantified and unmapped, particularly its use as a critical wintering waterfowl forage. An assessment of baseline ecological conditions, including waterfowl carrying capacity, and the impact of widespread versus localized spraying of Imazamox must be undertaken before such spraying is permitted. Before the waterfowl carrying capacity or other ecology functions can be altered they must have a measured baseline, which is not currently available and must be part of any EIS for spraying Imazamox in the bay.

Should you have further questions regarding our concerns, need more input on appropriate baseline environmental data collection, or require support for its collection, please contact Mr. Barkhurst at the phone number listed above.

Reference:

Baldwin. J.R., and J.R. Loveron. 1994. Habitats and Tidal Accessibility of the Marine Foods of Dabbling Ducks and Brant in Boundary Bay, British Columbia. Marine Ecology Progress Series. Vol. 103:119-127.

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