



October 29, 2012

DEPARTMENT OF ECOLOGY

OCT 31 2012

WATER QUALITY PROGRAM

Ms. Kathy Hamel
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Subject: Response to public comment period on Determination of Significance and Environmental Impact Statement for a general permit for the control of *Zostera japonica*

Dear Ms. Hamel:

The Washington Department of Natural Resources (DNR) received notice that the Washington State Department of Ecology (Ecology) is considering a general permit for the application of the herbicide imazamox to control *Zostera japonica* on commercial clam beds in Willapa Bay and in doing so, is conducting an Environmental Impact Statement (EIS). The DNR also received notice that the Washington State Noxious Weed Control Board (WSNWCB) is considering a proposal to expand the listing of *Z. japonica* from a Class C noxious weed only on commercial shellfish beds in Pacific County to all areas everywhere in the State.

DNR manages state-owned aquatic lands for the citizens of Washington State under Articles 15 & 17 of the Washington State Constitution and Chapter 79 of the Revised Code of Washington. As the manager and Steward of state-owned aquatic lands, DNR supports Ecology's EIS process and the issues that it is addressing. DNR does not support the use of imazamox because its application is highly likely to lead to impacts to protected species. DNR does not support the WSNWCB expanding the listing of *Z. japonica* as a Class C noxious weed throughout Washington State. More scientific information is needed in order to credibly assess whether concerns related to *Z. japonica* outweigh both the ecological benefits of *Z. japonica* and the ecological costs of its control.

DNR offers the following specific comments and suggestions for your consideration as you move forward with your process:

- **Damage to the State protected species *Zostera marina*** - *Z. marina* is a protected species nation-wide under the Clean Water Act. In Washington State, *Z. marina* is protected by state legislation and is a critical habitat that the DNR manages. Imazamox is not species-specific and spraying imazamox kills and/or damages *Z. marina* as well as *Z. japonica*. *Z. japonica* grows in the mid to upper intertidal range from approximately 0.0 m Mean Lower Low Water (MLLW) to + 1.5 m MLLW. In almost all locations in WA,

Z. marina grows down slope of *Z. japonica* and imazamox spraying will flow into the protected species. The lower edge of the *Z. japonica* depth range overlaps with the upper depth distribution of *Z. marina* allowing the two species to co-exist in some areas. In areas where the two species occupy similar vertical zones and co-occur, the result can form a mixed *Z. japonica* and *Z. marina* bed or a dominant species with patches of the other species. Removal of *Z. japonica* may detrimentally affect *Z. marina*.

- **Ecological Effects of *Zostera japonica*** – To date, there is limited scientific evidence that demonstrate the ecological effects of *Z. japonica*. Research has found that *Z. japonica* provides many of the same basic habitat functions as *Zostera marina* (Mach et al. 2010). We recommend additional research to understand the habitat functions and ecological services that *Z. japonica* provides.
- **The scope of the general permit and treatment of mixed beds of *Z. japonica* and *Z. marina*** – Imazamox is a non-selective herbicide that will present unknown impacts to *Z. marina* and the surrounding habitat. As Ecology moves forward with the EIS, we recommend that Ecology and the shellfish industry develop a pilot research program, first targeted to shellfish aquaculture lands where *Z. japonica* is known to exist in a monoculture and has significantly reduced shellfish productivity. These pilot studies should, at a minimum, include careful documentation and monitoring of the effects of imazamox on targeted and non-targeted species.. Results should be used to inform decisions about permitting application of imazamox on commercial shellfish beds.
- **Identification of *Zostera japonica* and *Zostera marina*** – *Z. japonica* and *Z. marina* have very similar morphology, with slight differences in sheath development and the number of roots and leaf veins. Often the size of the two species is easily discernible but this is not always the case. Expanding the area of Class C Noxious Weed classification beyond commercially managed shellfish beds increases the potential of unintended harm to *Z. marina* when it is incorrectly identified as *Z. japonica*.
- **The timing of the expansion of the listing of *Z. japonica*** – While shellfish growers indicate that *Z. japonica* is causing significant harm to their industry. Control of *Z. japonica* would lead to impacts on the ecological functions that it provides to the nearshore ecosystem. Much more scientific information is needed prior to evaluating a proposal to expand geographic scope of the listing of *Z. japonica*. Hopefully, some of the needed information will be provided by Ecology's EIS process.

As a major owner of aquatic lands in Washington, DNR is concerned that broad control of *Z. japonica* may not be ecologically responsible. Given the unknown effects of *Z. japonica* and its control, we recommend that the WSNWCB does not take action until: 1) Ecology addresses the issues raised in the EIS; and 2) it is demonstrated that concerns related to *Z. japonica* outweigh both the ecological benefits of *Z. japonica* and the ecological costs of its control. We hope that the EIS will allow Ecology to answer essential questions and will result in the appropriate conclusion regarding whether to issue the general permit.

Ms. Kathy Hamel
October 29, 2012
Page 3 of 3

We appreciate this opportunity to comment as part of Ecology's EIS scoping process. We support Ecology's Determination of Significance and decision to complete an EIS prior to issuance of a general permit for chemical control of *Z. japonica*. Additionally, we agree with the WSNWCB advisory committee's recommendation not to move forward with an expansion of the listing. We have significant eelgrass expertise on my staff and I would like to be involved with development of monitoring or permit conditions if Ecology chooses to move forward with a general permit.

Sincerely,

A handwritten signature in cursive script that reads "Blain Reeves".

Blain Reeves
Assistant Division Manager, Science, Shellfish, and Invasive Species
Aquatic Resources Division

