From:	Brian Sheldon
To:	Lubliner, Nathan (ECY)
Subject:	Comment on Japonica NPDES=EIS due 2-15-14
Date:	Friday, February 14, 2014 12:30:08 PM
Attachments:	2-14-14 BRS comment letter on NPDES.pdf

Hi Nate,

Attached are my comments on the japonica permit/EIS. Please let me know that you received these.

Thanks,
Brian Sheldon

February 15, 2014

Nathan Lubliner
Washing State Department of Ecology
PO Box 47696
Olympia, Washington 98504-7696

Dear Nathan,

I want to thank you and the staff at the Department of Ecology for providing this opportunity to provide comment on the recently released "*Zostera japonica* Management on Commercial Clam Beds in Willapa Bay General Permit". As you are aware, japonica is a listed noxious weed in Washington state, and is an invasive species that is causing large negative economic impact to shellfish farms in Washington. My long term experience shows me clearly that this invasive is having large negative impacts in all the areas of the State it infests including publically managed state tidelands. This eco-engineering invasive is destroying thousands of acres of native tidelands and the life these lands support, and there are clear negative implications to the basic food chain. These impacts extend well beyond the boundaries of commercial shellfish lands, as was recognized by the Washington State Noxious Weed Control Board (WSNWCB,) so as to degrade public recreational areas, and private lands used for personal shellfish cultivation.

It is irreprehensible that some state agency staff charged with the legal duty to protect our public aquatic lands have chosen to not only ignore this important issue, but to also act so as to protect this aggressive and destructive invasive plant based on well worn and overstated concerns around waterfowl, fish, and other overstated and unfounded subjective concerns. These are issues that easily evoke emotional responses from the uninformed public, and it's quite frustrating that some agency staff are using these underhanded tactics to support what is clearly a subjective personal agenda. The mounting volumes of Best Available Science (BAS) tells us to pursue unlimited control of this invasive so as to protect ecologically sensitive areas, and to protect economically productive areas that are part of the public interest. The responsibility of the relevant agencies to protect the public interest is taken very seriously by the public. While the issuance of this permit by WDOE is a correct and responsible step toward developing an adequate control program, it's unfortunate that it essentially ignores and undervalues the plight of the remaining public interest.

In regard to the damage japonica is doing to our shellfish lands, these damages do not stop at the boundary of a clam bed, but extend to all our shellfish beds. WDOE's decision to limit this

permit to only commercial clam beds is not supported by BAS, and this decision will result in large and continued economic damages to our farms. Japonica is having the same impact to our clam beds as it is having on all parts of our shellfish farm. I have watched japonica go from colonizing the high intertidal area, to expanding its range to the deepest part of our farm down to the sub tidal area. In Willapa for example, this means it has expanded from a narrow approximate one hundred foot band of low density stem in some upper tideland areas, to dense stem areas covering over a mile from the upper tidelands to the deeper elevation bed areas. This infestation range now includes all areas historically only used by Zostera Marina, where now it's clear that japonica is competing with native Marina for space. While Marina only grows in lower and continuously wet areas, japonica marches through all areas. Published research (BAS) along with concerns expressed by other marine scientists has demonstrated that there is a likely negative competitive impact where japonica infests areas historically used by Marina and acts to displace the Marina over time. This information is aligned with what I have seen occurring in Willapa Bay over the last 15 years as japonica has exploded across the natural tidelands, and increased its density so as to smoother many areas of the tidelands for several months per year.

Shellfish have traditionally acted as the "canary in the coal mine" in regard to overall estuary health. BAS clearly demonstrates the negative impact that japonica is having to shellfish and the growing areas they rely on. If we can accept that shellfish are a key indicator of marine health, can accept what BAS is demonstrating, and can accept the real world input from those with long term experience closely monitoring conditions in the marine environment on and around their farms, then we must conclude that japonica is having overall negative impacts. As frustrating as it is to me personally that some of those charged with protecting the public trust are allowing false science and misinformation to be used as an excuse not to pursue the protection of this trust, I must focus my effort at this time on the health of our farm. I am required to actively farm these lands, and japonica is preventing me from pursuing this obligation. However, I want to be clear that my primary concern is toward the preservation and health of our marine waters, and japonica is acting to severely degrade these waters and the ability of these waters to support life for many species and the food chain on which they depend.

Below is a summary of the concerns I have with the current NPDES permit draft language. My comments are arranged so as to address specific concerns in each section of the permit, but some concerns may be applicable to multiple sections of the permit. My concerns and some suggested language amendments are:

1) Table-1 and Section S2.C.1. defines when applications are required to be delivered to WDOE from the person requesting coverage under the permit each year. The permit timing allows treatments to begin April 15, through June 30 2014. This is the window when plant germination normally begins and when control efficacy can be optimized. Its required that applications to treat be submitted 60 days prior to treatment. This means that if an applicant plans to treat on April 15th, they would need to deliver an application on approximately February 15, 2014 which corresponds to the deadline for permit public comments to be received. The initial permit will clearly not be issued by February 15, 2014, so can an application for coverage be submitted prior to final permit issuance so applicants can meet requirements to be able to treat during the entire treatment window contained in the permit? I suggest that language be added to the permit and a notice be delivered notifying potential applicants that they can deliver all required application materials prior to the issuance of the final NPDES permit.

2) In several sections of the draft permit its stated that Geoduck beds are excluded from treatment. Why was this limitation added to the permit and is there science that supports this limitation? I request that this restriction be removed from the permit.

3) Under Special Conditions S1.a it states "*This permit will be issued for a duration of 5 years from the effective date. The application of aquatic herbicides and marker dyes is prohibited after the third year. Based on study and monitoring results, Ecology will make a determination to modify the permit to allow continued application of aquatic herbicides or terminate the permit after the third year*". I request that this wording be changed to better reflect the actual plan to potentially modify the permit based on results of monitoring studies. The intent of these studies is not to prevent the future use of imazamox to control japonica, but rather to implement adaptive management strategies based on monitoring results.

Please consider the following language as a replacement for this paragraph:

"Based on monitoring study results, Ecology may make a determination to modify the permit based on these result so as to adjust buffer or other permit conditions to reflect actual demonstrated impacts."

4) One condition under section S2.C.3 and in Appendix-B states that applicants are required to *" Publish twice, one week apart, a public notice in a local newspaper of general circulation that an application for permit coverage has been made pursuant to WAC 173-226-130(5). At the time the second notice is published, a 30-day public comment period begins*"

It is unclear what the additional 30 day comment period addresses. As I read this the permit has already been issued, so why would there be another 30 day comment period opened? I request that there be no additional comment periods unless they are required by a specific statue. It's unreasonable to open a comment period up after the permit has been issued and after an application has been made for coverage under this permit. Applicants deliver an application based on what is required in the existing permit. It's not reasonable to expect the applicant to then somehow modify their application to address some unforeseen comment. It's not possible to plan pest control activities around the moving target this comment period would encourage/allow, and the affect the additional 30 day period would have on the permit window. Again, I request that there be no additional comment period beyond the one that ends February 15, 2014.

5) The statement at the end of S2.C states that "*Applicants may cooperate and publish a single public notice as long as the public notice contains contact information about each applicant and lists all locations proposed for treatment. At the end of the 30-day public comment period, Ecology will consider any received comments about the applicability of this permit to the proposed treatment activity before issuing a decision on permit coverage*". Again the added 30 day public comment period is implemented when news paper notices are published. I request that this comment period be eliminated from this permit. Public comment opportunities were abundant when the permit was developed, and applicants shouldn't have to be delayed further or be held accountable in any way to "after the fact" public comments.

In addition, the requirement to include " *contact information about each applicant and lists all locations proposed for treatment*" is excessive. I request that the notice only be required to include the contact information for the person helping sponsors manage the permit, such as the WGHOGA person contracted to manage the efforts of a group of sponsors. This provides a single point of contact for a person knowledgeable of the overall control program. An alternative to this is to simply refer the reader to the WDOE web site where they can review the annual permit and applicant information. I also request that the requirement to list "all locations proposed for treatment" be limited to only refer to the general confines of Willapa Bay. As now worded the requirement seems to imply that each and every bed be listed, and that level of detail should not be required in the public notice. Again, the reader can be referred to WDOE where they can obtain this information through the proper request process like any other citizen. Requiring every bed to be listed only acts to increase the cost of the public notice with no real value added as far as informing the public who have essentially no understanding of the commercial bed labeling system used in Pacific County.

6) Section S.3.D states "*The Permittee must ensure treatment does not cause permanent harm to sensitive, threatened, or endangered plant populations*". It should be clarified that plants of concern are as identified in existing information contained within WDNR or other information as applied to Pacific County.

7) Section S.4.A.3.1 states: "*Only apply imazamox, or another herbicide if the Permittee is also covered under an experimental use permit (special condition S4.H), to commercial clam beds, excluding geoduck beds*". Why are Geoduck beds excluded from the permit? There should be no exclusion of Geoduck unless there is specific objective data that support this exclusion in Willapa Bay.

8) Section S.4.A.3.5 states: "*Not treat a commercial clam bed more than once per year*". This should be re-written to clarify that this single treatment per year restriction is intended to apply to the actual portion of the clam bed treated. It's likely that portions of a clam bed may be treated at different times, but those portions would only be treated once per year. I believe this is the intent of the permit.

9) Section S.4.A.3.7 states: "*Aerial application of imazamox is prohibited. Ground based applications must not be made when wind speed exceeds 10 miles per hour*". I believe this restriction is based on average wind speed. The wording should be amended to specify that its 10 mph average.

10) Section S.4.B states: "*The Permittee must maintain a buffer inside their sponsor's property line where treatment will not occur. See Appendix E Figure 1*". The issue of buffers in this permit was intended to address potential impacts to general Zostera Marina populations in Willapa Bay, but this restriction adds any and all potential offsite impacts including the control of japonica itself. Essentially this restriction forces the grower to protect japonica as a listed noxious invasive weed on their property within the buffer area. The goal of the permit was to assure no more than a 20% reduction of Zostera Marina occurred due to the implementation of this permit. This percentage was provided as a guideline by WDFW, but does not address the natural fluctuations of Marina populations and density that have been demonstrated through monitoring research in Willapa Bay. Best Available Science (BAS) has demonstrated that there is little if any impact to Marina off the treatment site. Existing field data for this specific use does not support the implementation of buffers as it has been shown that there is no likelihood that anywhere near a 20% reduction in Marina population would ever occur. In spite of this, clam growers have agreed to maintain a reasonable buffer between significant areas of Marina based on BAS. Field research to date has demonstrated that an extremely conservative buffer distance of 6 meters provides protection of any off site impact to Marina. In fact this research mostly showed that no buffer was required at all in that any impacts to Marina were extremely limited and very short term. The 6 meter figure was based on a specific situation where a test case resulted in treatment over a significant drainage to a Marina area. The result was some slight and short term impact to some Marina Plants, but these were later observed to have recovered fully. If there must be a buffer restriction, I request that it be limited to no more than 6 meters between property lines and significant areas of Marina. The ability of shellfish growers to control an invasive noxious weed, which japonica fits the definition and legal status of, should not be diminished by the addition of unsupported buffer setbacks. To the best of my knowledge, this type setback is not required in any other invasive noxious weed general or other permit.

11) Section S.4.B states also states that "*A buffer width of 10 meters, measured perpendicular to the parcel boundary, is required for all treatment site* ". It's important to note and consider the significant economic damages clam growers will continue to suffer under this buffer requirement. These damages have not been included in the small business economic impact report. These buffers will severely limit the ability of physically narrow clam beds from participating in the japonica control program by eliminating an area 20 meters (65.6 foot combined for both property boundaries) wide by some distance long from the control plan. There are many established clam beds in Willapa Bay where these buffer restrictions will essentially eliminate the option to do control because there would only be a narrow strip down the center of the bed where control was allowed after 65.6 feet of the bed width is removed from the control plan. Damages will include several different impacts including reduced clam production, degraded bed and cultivation conditions, long term ground degradation, etc., all of which occur specifically due to the setback requirement. All areas where clam growers are prevented from controlling japonica will continue to suffer the same crop impact as if the japonica was not controlled. In addition, areas that have been cultivated within the buffer area will continue to be degraded as cultivation efforts are lost due to japonica impacts.

An additional and sever impact will be that the control line between where japonica remains and where it's been controlled will have very different sediment makeup characteristics. Where japonica is controlled the substrate will return slowly to its pre-infestation condition. Where japonica is allowed to remain there will be root and stem remaining that act to force water to flow along the control side of the line between control and no control. Without the frictional resistance of the japonica stem and root, water will flow more freely onto the control area (path of least resistance) and along the control line. This will act to create a stress concentration where flowing water will scour the control line and create a slough or drain. Where these drains form, clam production will be lost. These type interruptions in water flow are of great concern in that they normally result in long term damage as new drains and sloughs normally continue to move until they reach naturally low areas of the bed. This means that if a new drain is allowed to form, it would likely travel laterally across the control area until it reached a low point in the bed, or some other obstruction. In its wake will be mostly un-farmable ground based on all my experience trying to farm as carefully as possible so as not to disturb bottom substrate. Economic damages from this type bed destruction are about unfathomable when one considers the long term loss of significant areas of a bed. Requiring a buffer setback greatly increases the risk of this damage occurring on clam beds.

12) Section S.4.B states also states that " *Where multiple Permittees and sponsors who have contiguous clam beds agree to combine treatment efforts, a buffer is not required on the connecting parcel boundaries. Each Permittee must indicate whom they are cooperating with and on which parcel(s) in their annual pre-treatment plan (special condition S7.A). See Appendix E, Figure 2 for an example of this situation*". There should be no requirement where permittees must be combining treatment efforts to be able to treat up to a property line with no buffer. I request that there be no buffer setback requirement between commercial shellfish beds. The permit allows treatment on commercial clam beds, so a buffer isn't necessary even when one party is treating and their neighbor isn't. Language should be clear in noting that where clam beds share a common property line that either one or both owners may treat up to the property boundary between the two separate beds. This restriction only acts to add unnecessary

complexity to the permit while acting counter to the intent of the permit to allow the control of japonica on commercial clam beds.

13) Section S.4.h.3 states *"Must be limited to 1 acre or less"* in regard to the use of an Experimental Use Permit (EUP). It should be clarified that the permit allows the utilization of a Federal EUP or other legal permitting action for research purposes, and that these alternate permits may allow more than one acre to be treated under the NPDES permit for these purposes.

14) Section S.7 requires that " *The Permittee must submit a signed and dated copy of the annual Pre-treatment Plan required by this permit to Ecology by March 1st of each year*". For 2014 it's unlikely that a permit will have been issued by March 1st. The permit needs to allow later delivery for 2014 as permittees will not have the final guidance of the permit on which to base the annual Pre-treatment plan upon. Suggest requiring the 2014 plan to be delivered within 3 weeks of final permit issuance.

15) Section S7 states " *Permittees must submit an annual pre-treatment plan to Ecology. The plan must include Locations of acreage planned for treated, including GPS coordinates of each corner of the area. The size, in acres, of each area planned for treatment. Maps delineating the locations of the areas planned for treatment. After the first year of treatment, the maps must also include the previous year's treatment area locations*". Conditions in the marine environment make it very difficult to predict the exact locations where a treatment is going to occur until just prior to the actual treatment. This flexibility provides for the most effective control program. Having to submit specific GPS coordinates up to two months prior to when the permit timing window ends is not aligned with real world conditions. I request that only one GPS coordinate be required from a central location of the expected treatment site. Having to record each corner of a plot is overly burdensome on the participant and is unnecessary when treatment is occurring on private property. It will also act to reduce the overall efficacy of each treatment thus requiring more frequent and larger applications of imazamox than if growers had increased flexibility.

I oppose the requirement for growers to include information from previous years treatments on maps intended to reflect their plans for the upcoming treatment event. I can see no to require this level of information and have to say that this type micro management is unlike any noxious weed control permit I have experience with. Per the reporting requirements the participant is already required to create a map for the annual Pre-treatment plan, which is delivered to WDOE. Why would it be necessary for the participant to essentially recreate the map again when WDOE already has the information?

Appendix -A, Definitions;

16) Commercial clam beds are defined as:" *Marine or estuarine areas where clams (excluding geoduck and oysters) are raised and harvested for commercial sale under a current Washington State business license*". I ask that this language be amended to eliminate the reference to "*excluding geoduck and*

oysters" in this definition. It would be a common occurrence for a clam bed to have some incidental oysters or oyster seed on a bed primarily used for clam cultivation. If the current wording is used to define a clam bed then it could pose a potential conflict that could prevent treatment of japonica as intended.

17) Zostera japonica is defined as: "*A seagrass species in the family Zosteraceae that is listed as a Class C noxious weed in Washington*". Please amend this definition to clarify that this is an invasive or non-native species in the United States. Suggest " *An invasive or non-native seagrass species along the west coast of the United States in the family Zosteraceae that is listed as a Class C noxious weed in Washington".* as amended language.

Appendix-B, Public Notice;

18) I request that the following language be removed from the public notice format as discussed in comment 4 and 5 above: "*Any person desiring to present their views to the Department of Ecology regarding this application must do so in writing within 30 days of the last date of publication of this notice.*

Comments must be submitted to the Department of Ecology. Any person interested in Ecology's action on the application may notify Ecology of their interest within 30 days of the last date of publication of this notice."

Appendix-D, Discharge Management Plan (DMP)

19) Suggest spelling out "Notice of Intent" in first paragraph to clarify what NOI means.

20) Suggest the NOI form defined in the definitions section be added as an appendix. As an alternative, suggest that the NOI be replaced with the requirement to deliver the pre-treatment plan .

21) For items 1 and 2 under section-B "Problem Identification", Suggest simply referring to the EIS which includes the required information instead of having the permitee replicate this lengthy document. Its overly burdensome for the permitee to have to repeat this information in the permit, which can be an extensive document.

22) Section-B, item-4 deals with the establishment of the Action Threshold (AI). The AI should be as defined for any invasive noxious weed, and it should be stated in the permit that the AI is the presence of japonica. There is no incentive for the permittee to conduct control actions if they perceive based on their professional farm judgment that they will or will not need to control in a certain season. As written the DMP infers that overly burdensome and complicated studies need to be completed to determine an AI. This is not in alignment with state or federal law and policy around invasive species where presence is enough to establish the AI.

23) Section C of the DMP should be replaced with a simple reference to the EIS, which contains all this information. The permittee should not be required to replicate this extensive documentation and effort here.

Appendix-E, Figures:

24) All figures should be modified to reflect changes in buffer requirements as discussed in comments above.

Again, thank you for the opportunity to provide comment on this issue. Please consider these comments and pursue the changes I have recommended. Our goal must be to deliver a final permit product that is aligned with the agencies requirement to minimize risk of environmental quality degradation, while at the same time creating a sensible and uncomplicated permit structure. It's clear that Zostera japonica is having great ecological negative impacts, and the initial control program on Willapa Bay commercial clam beds will provide a model for control in other areas as responsible public and private land Managers accept the severe ecological damage this plant is having on the State's marine resources. We must deliver a final permit that not only meets the requirements around risk management, but that is also as uncomplicated as possible in its implementation.

Sincerely,

Brian Sheldon
Nahcotta, Washington