

Aquatic Invasive Species NPDES Permit
Written Comments

Commenter #1 - Wendy Brown Representing the Washington State Invasive Species Council

The Washington Invasive Species Council thanks you for this opportunity to comment on the draft Aquatic Invasive Species Management NPDES General Permit.

The Council is strongly in support of this permit and believes it to be a valuable tool for invasive species management. It provides agencies with options for the control of invasive animals, which prior to this permit, had been significantly lacking. While the Council does not advocate for the use of pesticides for invasive species management, we understand that it may be the only viable control option in some cases, such as for zebra or quagga mussels. We appreciate the Department of Ecology's proactive approach to invasive species management in Washington. With this permit, agencies will be able to rapidly respond to new invasive species outbreaks, and, in doing so, reduce harmful environmental and economic impacts.

Sincerely,

Wendy Brown
Executive Coordinator
Washington Invasive Species Council

Commenter #2 - Fritzi Cohen - Interested Party

**Comments on the NPDES draft permit for Aquatic Invasive Animal Species and Marine Algae.
Submitted by Fritzi Cohen, June 11, 2010**

It is my opinion that this draft permit and the DEIS on which to some extent it is based, is a permit for unleashing more poisons into marine waters, for too long a period of time, without an adequate understanding of what the impact will be to the target species, to non-targeted species, to marine life in general and to public health. And there appears to be inadequate administrative oversight during the life of the permit.

Neither the EIS nor the NPDES drafts address the very serious problem of assuring that rigorous science governs all aspects of deciding whether a so called non-native invasive species is actually detrimental in the long run to the ecosystem in which it has arrived, understanding the underlying reasons for its arrival as well. Citing lack of funding -- to assure that decisions are made on reliable scientific information, and preventing the revisiting of decisions because of new information which becomes available -- is irresponsible.

With that in mind I will try to focus my comments on two of my major areas of concern. The first is the indisputable inadequacy of risk assessments as currently done—to address the real risk.

DOE requires risk assessments be done only on the active ingredient. Although this may be consistent with EPA requirements, the State can raise the standard, and there is no justification not to do so and there are plenty of reasons to raise the standard. It is well known that the active ingredient is only a part of the commercial product used, and frequently surfactants are added to make that product effective. Surfactants require no EPA approval. By U.S. law, only active ingredients (AIs) are reported. In addition to active ingredients, pesticide products may contain one or more "inert" ingredients. Many "inert" ingredients in current use have known adverse human and environmental effects. Frequently as in the case of glyphosate, one chemical product is mixed with another chemical product as in the case of Aquaneat and Polaris. Currently risk assessments do not require testing the combination of either the active ingredients much less the commercial products with the surfactants. Imazapyr for instance is 27% AI, (73% unknown) and glyphosate 53%AI (47% unknown).

Since ultimately we taxpayers pay for these assessments, unless they are done correctly, what is the point—it's just a waste of our money. More importantly it gives a sense of false security to what the actual impact both short term and long term will be. The commercial product, with the surfactant and the intended mixture is what needs to be tested. Its common sense. Not having adequate budget to do appropriate testing is an inappropriate, unacceptable excuse.

I find the determination that certain species are non-native, invasive and harmful and need to be eradicated, has been approached subjectively, not with the scientific rigor that would result in an objective discussion and decision. In general, the impacts of the species that are the subject of the permit are totally speculative, based on a presumption that they will be harmful to the ecosystem, and that removing them will be beneficial.

And don't you think sound science would demand an evaluation as to how these eradications relate to concerns about global warming, coastal erosion from sea level rises, ocean acidification, oxygen deprived waters et al.. or are our WA. State agencies among the deniers of climate change challenges.

I have witnessed a shameful lack of scientific rigor and subjectivity in a very personal way. In regard to spartina, for instance there was never any discussion about how the removal of spartina would impact shoreline erosion, and never an objective scientific study of what the grass's actual role in the ecosystem meant and responsible management alternatives were dismissed. The popular mantra was that East and Gulf coast science re spartina was irrelevant. And although one of the prominent oyster growers maintained at public meetings that the grass was never a concern of the oyster growers—it was the birds---you find that that myth has

been perpetuated, by government agencies and the oyster grower himself . I never realized before living on Willapa Bay that science could be so corrupted.

Re objective decision making re Invasive Species: A colleague of mine Boyce Thornmiller, a marine biologist, graduate of the U of WA. pointed out a few years ago that there is no national scientific guidance for rapidly and effectively assessing the threat posed by an introduced species—and determining the preferred environmentally responsible management alternative. For example in Humboldt County where USFWS is funding mechanical removal of spartina, before removal occurs. local scientists have insisted that the impact of removal on the food chain needs to be studied prior to removal. Good science. But that consideration never occurred in WA. State or in other parts of California because the eradication effort was politically driven.

My experience with spartina and seeing how the weed boards, county and state and the invasive species regulators act, is that decisions are rarely based on sound science but on speculation fueled by an interest in eradication with the use of chemicals. I see nothing in the DEIS or the Draft Permit to insulate science from the kind of politics that has driven it in the past.

There is a growing body of science that is challenging what has become a faddish discussion re invasive species and the resulting determination to eradicate them. There is a real need for taking a new look at invasive species, focusing on keeping them out of the ecosystem, and not giving short shrift to the no action alternative.

Related to concerns re the structural inadequacy of the risk assessment process is the failure to adequately understand the impact of biocides that are used in non-terrestrial situations, in this case the marine environment. It is not denied that chemicals will act differently in fresh water than they would in marine water. For instance the NPDES permit that governs the spraying of spartina throughout the state--has permitted Imazapyr, which EPA now says should be prohibited in marine and estuarine situations. This chemical was permitted in 2003, even though it was very clear that there had been no marine toxicity tests. And of course Kim Patton, of WSU and Miranda Wecker, Commissioner of DFW, aggressive promoters of chemical eradication had to be aware of that. And Brett Dumbauld, now of USDA at Newport, advised Entrix, author of the Patton inspired risk assessment(2003) not to test imazapyr on crabs because there was virtually no crab industry in Willapa Bay. Glyphosate --which is also permitted and is being associated with reducing the immunity of oysters to vibrio, as well as other serious human issues--was never tested on plankton something that certainly should have preceded its permitted use. AND THIS IS NOT JUST ABOUT WILLAPA BAY, THESE CHEMICALS ARE SPRAYED ALL OVER PUGET SOUND, ALL OVER WASHINGTON STATE.

In conclusion neither the EIS or the NPDES drafts seem to address the very serious limitations of science in deciding whether a so called non-native invasive species is actually detrimental in the long run to the ecosystem in which it has arrived, Understanding the underlying reasons for

its arrival as well. And risk assessments of biocides to be used, have to be looked at realistically, and to even approach that, what's being used must be the subject of the assessment.

THE BOTTOM LINE IS THAT THE CURE SHOULD NOT BE WORSE THAN THE DISEASE, AND PERHAPS INVASIVE SPECIES DESERVE A PRESUMPTION OF NOT BEING WORTH THE RISK OF WHAT IT TAKES TO ERADICATE THEM.

I apologize for repetition and perhaps indulging in my personal perspective to some extent. I am not a scientist, I am a victim -- of the improprieties that occur when science becomes politicized and is not applied rigorously. But don't underestimate how much I have learned as a result.

Respectfully submitted.
Fritzi Cohen

Subject: where to find public comments on draft NPDES Aquatic Invasive Species and marine algae.

From Fritzi Cohen

Is there an easy way to access the public comments that were received?

Commenter # 3 - Cynthia Bova - Interested Party

Below is my comment on the upcoming NPDES permit for aquatic invasive species and invasive marine algae.

Spartina densiflora- I found evidence that one species of spartina is NATIVE to Pacific waters and therefore should be allowed to grow thus protecting our shores from erosion and at the same time help slow climate change by producing oxygen! The policy concerning eradication of this plant especially during our earths phase of rising seas is incomprehensible!

Migrating waterfowl and birds have and do carry Spartina densiflora seed. These seeds are on or in their bodies, and are more than likely spreading this migrating, not invading plant. Ocean currents, changing temperatures and plant and animal migration go hand in hand! Who are we to play god? Three different scientists from three different states have admitted that this is a very probable theory. MIGRATION NOT INVASION! Please Research Spartina densiflora and stop wasting tax dollars on chemicals to control this NATIVE not invasive plant.

Sincerely,

Cynthia Bova
229 Toileak st
Ocean Shores, Wa 98569
360-289-9811

Commenter # 4 - Kelly McLain Representing the Washington State Department of Agriculture

Section S4A.4: Please delete the language starting with "... Obtaining."

Please create a new S4A.5 that reads "The Permittee must coordinate with WSDA to ensure pesticide label approval prior to beginning any discharge activities. Authorization of pesticide discharge under this permit does not indicate registration approval under FIFRA. "

Commenter # 5 - Sutra Restaurant & Sutra Yoga Studio - Interested Party

Comment on NPDES draft permit to put poisons in marine waters

Please, Please, Please, let's all be reasonable. Our earth, and our lives are in great danger because of our (human) disrespect to all life forms; that of marine wildlife, land wildlife, the entire ecosystem of the planet, and our own lives. I can't even imagine anyone, with all the information that's available, could possibly test chemicals in our waters. Where is the heart? I fear we've turned into robots who have no connection to the natural world and are stuck in a black and white paper box.

May humanity find our way back.

Commenter #6 - Keith Staurum representing The Independent Shellfish Growers of Washington State

The Independent shellfish Growers of Washington State cannot act or respond to anything unless all members agree. The following statement is what all 329 members agree on. Please give great consideration to the following comments from our organization being we have more members than any other group of oyster growers. We have the support of the Seattle's chef collaborative and the Sierra club to mention a few. Our thoughts on the draft are as follows.

(1) Before the use of the NPDES permit in any way, to include experimental testing. All shellfish farms within a four mile radius of a test site or application must agree that it is to be done. If one registered shellfish farm says no there must be no application within a four mile radius of that farm to prevent chemical drift and forced closure due to federal guidelines set forth in the NSSP that states once chemicals have been detected on tidal lands those tide flats must be closed for one year. If all shellfish farms that fall into the 4 mile radius from an application site agree that chemicals can be used, the state must supply the funds for an independent laboratory of the shellfish farms choice to test their tidal flats for the chemicals being used. If chemicals are detected on the Farms tidal flats there must be in place a fund for compensation. If all the science used up to that point is correct there should be no problem. Also if all shellfish farms within that four mile radius agree to the use of chemicals, then land owners that have land that abuts the waters within that four mile radius must be polled and a simple majority rules. With all of this in place we are assured of minimal damage to all.

The Independent Shellfish Farmers will not accept any science set forth by the PCSGA or any University and extension office to be used in determining the safety of any chemical to be used. After seeing the list of approved chemicals in the draft all of our members agree that any chemicals that are to be on this list be open to peer review by the public through publication in major newspapers with a list of items that contain the active ingredients so that the common person can go to the store and read where these things can be applied. That way a true response from the public can be applied.

(2) Before any consideration is given to an application of chemicals of any kind into marine waters the science and studies used in making the determination of asking for the use must be made available to our organization so that we can have the work peer reviewed by credible scientists who's job does not depend on the outcome of the study. Also these peer reviews must not include scientists who may work for a large member of our industry that will not necessarily be honest to the point that their review is in the best interest of all. After the reviews are done the majority should rule in the decision making process but all reviews must go on record so accountability can be maintained.

(3) In the past poisons have been used that have almost destroyed small shellfish companies. This was done through bad science and lies. We feel that the permit should not be spread out to all agencies or individuals. The department of Ecology should be the sole agency responsible for all aspects of this permit including charging for it. In the past so many people have been able to do what they want that no one was held responsible. Applying poisons to our marine waters is a very serious situation. With what has gone on in the Gulf of Mexico We believe more consideration must be given to the small farms or we will be just like the ones going out of business in the gulf.

(4) For some reason all of our members are wondering why we are never invited to the table in

this decision making process. We feel that of all the industry we are trying the hardest to be sustainable and we have far more hands on experience than most scientists or the big companies. The layman's point of view of what they see on their land and what they do to control it or even if it is a problem should weigh heavily before any chemical response. In the past scientists have done studies and research at great cost and ended with huge detrimental effects when if the Independents where involved it would have been handled differently and reached the same result without harm to our industry.

(5) In the draft It states that there should be an alternative plan from the chemicals originally being applied after 18 months. We believe that if the NPDES is to be used that there should already be a backup plan in place before the use of the permit. That way an extreme response if needed could be used immediately such as mussels clogging turbine cooling pipes at a dam. We foresee nothing at this time that would be so horrific to our industry that such a chemical response in that fashion would be needed. Do to this we feel that all tests for chemicals that are on the list be done in labs under controlled conditions not in the marine waters where the result could be harmful. Testing in a lab cannot mimic the marine waters and everything that survives in it or contributes to its health. Also endangered species that cannot be tested must not be declared safe by something that we say is close to them because if we cannot test the species, then how do we know that the tests are being done on something comparable. We do not and this is unacceptable.

This e-mail for comments has been reviewed and approved by all members of the Independent Shellfish Growers of Washington State

Commenter # 7 - Joseph M. Hiss - Interested Party

Thank you for the chance to comment on the proposed permit for control of invasive aquatic species, which you offered at your fine presentation at the Lacey Library on June 7 of this year.

General Comments

First, the "Terms and Conditions" seem to mean the same as the "specific restrictions" of Section 4D, pages 11-16 (made up of "timing windows," "restrictions/advisories," and "treatment limitations") combined with the adaptive management plan of Section 5, and the "general conditions" in sections G1, G4D, G5D, and G7. Do I understand this correctly? If so, I recommend calling all these things "terms and conditions" and putting them in one section.

Second, the "monitoring requirements" in Sections 7, 9B, and 9E1 do not seem to be tied to the "terms and conditions" mentioned above. Most of the "Treatment Limitations" (all except copper and calcium hydroxide in fresh water) do not specify the "lowest effective concentration" or other numeric threshold. If the lowest effective concentrations,

temperatures, or acidity are known, or can be set based on site conditions, the permit ought to specify this so all parties will know from the monitoring data if the action is in compliance.

Finally, I did not find any requirement for the applicant or contractor to monitor the direct effect of the toxicant on the target species. My personal opinion is that the State of Washington, particularly Ecology and Washington Department of Fisheries and Wildlife, should commit to monitoring the effect of permitted actions on the target species, to a level that will allow a fair comparison between the positive and negative effects of the actions. Let's get the most practical information out of this program as we can!

Comments on Specific Passages

Page 6, Item B: the heading "May Not Need Coverage" seems to contradict the phrase "does not require coverage" in the sentence following.

Page 8 Section 3A1a, last line: The definition of "short duration application" ought to be added to the glossary.

Page 8 Section 3A1b, last line: The term "limited to hours or days" is confusing to me. Does it mean "no more than one day of exceedance post-application?" Does it mean "duration of the application?" Or something else?. I suggest you define this in the glossary.

Page 8 Section 3A2: I suggest adding the term "vicinity" to the glossary.

Page 8 Section 3B: Is it reasonable to assume that a proposed action is extremely unlikely to result in the impairment of a currently-unimpaired waterway? If not, I suggest you add some language to cover this possibility.

Pages 12-16, Table 1, Column 2: I suggest you provide a legal definition of "critical habitat areas" if there is one.

Pages 12-13, Table 1, Column 4: Is there a standard definition of "limit water exchange behind impermeable barriers?"

Page 14, "Rotenone," second bullet and Page 16, "Chelated Copper," last bullet: Meeting the requirement that "listed fish species must not be present" should require more support than simply absence of surveys for the species in the action area. If the area has not been surveyed for the species, I recommend you add language requiring the applicant to consider (1) whether listed fish from a known population could get to the action area, and (2) whether the action area provides suitable habitat.

Page 15, “Antimycin-A,” first bullet: You might add the term “shallow water bodies” to your glossary.

Page 17, Section 5B: I am concerned that no adaptive management plan is required until a year and a half after treatment has started. It seems the applicant has little incentive to modify the treatment during this period, even if problems arise.

Page 17, Sections 5B and 5C: Does the “plan” mentioned in Section 5B mean the initial plan in Section 5C or the revised plan in Section 5C? What happens if Ecology finds substantial defects in the revised plan?

Page 20, Section 7A1 and 7A3: Must the applicant submit the monitoring plan on February 1 before the first treatment, or after it? I suggest that you spell out that Ecology must approve the monitoring plan before treatment starts, if that’s what is meant.

Page 22, Table 3, Copper, first bullet: I did not find any requirement for monitoring copper post-treatment. If post-treatment monitoring is feasible and meaningful, I’d suggest requiring it.

Page 23, Table 4: I assume that the sole purpose of pre-treatment monitoring is to calculate the correct dose. Is this so? An explanation would clear this up for the general reader.

Page 23, Table 5, rows 1 and 2: I assume the sole purpose of post-treatment monitoring of pH and temperature is to see whether your dose became more toxic than expected. Am I correct? Again, you might clarify this for the general reader.

Page 24, Section 8A and Page 25, Section 8C: Do the protocols include thresholds of concern? If they do, you might include these in the monitoring requirements, so it’s clear what the data mean.

Page 32, Section G4D: Does the language “endangers human health or the environment, or significantly contributes to water quality standards violations” represent the language of any particular statute? If so, it would be helpful to cite it here.

Page 32 Section G5D: It might be good to define “cumulative effects” to make it clear whether this covers only permitted actions, or also considers exempted actions. It might also be good to define “unacceptable,” making it clear whether this is a planning term or a statutory determination.

Please forgive me if the EIS proves answers to my questions, as I did not have time to review that document. Please contact me if you need me to clarify any of these comments. I hope this letter has been helpful!

Commenter #8 - Jules Michel - Interested Party

As mentioned earlier, I believe it is important to ensure the clarity of this permit addressing nonnative invasive species only. This wording should be clear throughout the entire document, from the title throughout the body of the paper, with nonnative included in every reference.

Ecology targeting specific nonnative invasive species with an integrated plan for each may better control how chemicals/pesticides are used, rather than relying on a permittee(s) to develop plans (S5A). This would minimize the risk of misapplication by unifying the plans.

Is there a specific formula at which a nonnative invasive species needs to be treated? Whether size of habitat covered; length of time other means are attempted; specific economic impact; etc. could be some means of measuring at what point these chemicals/pesticides become necessary in the integrated process?

Discharge limits should be as tightly controlled as possible. S3A seems to indicate excessive amounts may be applied if only for short periods. The nature of currents and tides in the waters of Puget Sound rapidly spreads an excessive application to areas not intended.

Experimental Use under this permit should leave no room for expansion. A strict limit on acreage should be set for bodies of water in order to avoid a .9 acre limit being used in multiple locations or an excessive number of acres through an EPA certification to be used (e.g., the recent Ghost Shrimp plan has a total of 80 acres being used under the "experimental" classification).

Individuals applying any chemicals/pesticides under this permit should be permitted, insured and, bonded in order to ensure proper application and means for recovery of damages from accidental spills or inappropriate use.

Notice should be sent to the owners address at the county assessor's office. This would ensure vacation property owners are notified.

I am greatly concerned about the Draft EIS and what information is available to base a safe decision on. Comments such as "limited in part by lack of information"; "Ecology has not been able to conduct timely environmental review of new commercially available herbicide active ingredients"; and "Ecology has tentatively decided to issue this DEIS and the Aquatic Invasive Species Permit without having independently conducted state risk assessments for some of the chemicals or products listed for use" are deeply troubling. Puget Sound is a critical body of water to many species and enjoyed by the general public. If Ecology cannot provide the

scientific proof of the efficacy or safety of a chemical/pesticide it should consider requiring peer-reviewed studies before putting it at risk.

Thank you for addressing the issue of nonnative invasive species, a very real risk to Puget Sound and other bodies of water. It is hoped chemicals/pesticides will never have to be used, but if they are, it is hoped they are first completely understood, then applied as a last resort in an appropriate manner.

Sincerely,
Jules Michel
3008 NE 45th Avenue
Portland, OR 97213

Commenter # 9 - Laura Hendricks representing the Cascade Chapter of the Sierra Club

Thank you for the opportunity to provide comments on the Draft EIS and the Draft NPDES permit for pesticide and chemical use in waters of Washington for the control of non-native invasive aquatic species. We trust these comments will be of help in assuring the use of pesticides and chemical to control non-native invasive aquatic species does not put at risk the unique species and habitats they are meant to protect.

DRAFT PERMIT

1. Ensure the permit is limited to treatment of only non-native invasive aquatic species. It is important that non-native species that are beneficial for Puget Sound ecological functions are not eradicated using this permit to improve industry profitability. A current example is Japanese eelgrass that is targeted for eradication by the shellfish industry, but is beneficial to Puget Sound fish species according to WDFW. This is an issue that agencies should carefully coordinate with the State Noxious Weed Board.
2. Minimize the number of approval agencies or groups from which a non-native invasive aquatic species is chosen for treatment. Too many groups increases the potential for a species being listed for treatment which in fact is not invasive or can be easily controlled by means other than chemicals or pesticides. Consider using only USFWS and/or WDFW. If the latter, consider only treatment of those species listed as “prohibited.”
3. Why is treatment out to twelve miles being considered? It would seem that distance presents containment problems which Oregon and British Columbia may have concerns with.
4. Will private applicators be required to have state certification?

5. Notice for new chemicals being added should include all who commented on the original permit.
6. Given the potential risk to the environment a permit for five years seems long. Perhaps consider shortening the permit to 2 years with options to renew, which would include a Public Notice.
7. Page 8, "Short Term Modification of Water Quality Standards" - Permit holders should not be allowed to exceed Water Quality Standards for any period in Puget Sound. With currents it is too difficult to keep chemicals applied localized.
8. Page 8, A3. "The applications authorized by this permit must not cause lasting or long-term harm to the environment." Who decides whether long lasting harm has occurred and how? This should be explained in detail with responsibility assigned.
9. Page 9, A2 "Temporary and limited impacts on non-target organisms are acceptable only to the extent needed to control the targeted organisms." Same as above.
10. Page 10, Experimental Use Permits, Requirements should be stringent for experimental use permits to insure that our native species are protected. Industry should not be allowed to use experimental permits to eradicate invasive species when other methods are effective. Our native species should not be sacrificed to improve industry profitability.
11. Page 17, Plan submittal should be required sooner than 18 months. If alternatives are not in place as soon as possible, allowing for such a long period of time may result in excessive use of chemical/pesticide application.
12. Page 30, Corporations and individuals should be required to carry insurance and/or bond in order to ensure compliance.

DRAFT EIS

1. "This DEIS will be limited in part by lack of information on methods and their impacts, because there is simply little information available." This statement puts in question how the DEIS allows for treatment but also protects the ecological functions of the areas treated. Allowing application of chemicals without adequate assurance should not be allowed.
2. "Ecology weighed temporary toxicity associated with chemical use versus the long-term impacts of invasive species. In many cases, short-term environmental damage from chemical use is less damaging than the long-term ongoing impacts of invasive species." "Other chemicals and products are new to the aquatic permitting program and may not have aquatic labels." How can these statements support the use of

chemicals/pesticides? There has to be strong evidence showing minimal “collateral” damage to support the application of chemicals and pesticides into Puget Sound.

3. Chemicals - “RCW 90.48.445 requires Ecology to maintain the currency of the information on herbicides and evaluate new herbicides as they become commercially available for use in Ecology’s Aquatic Plant Management Program. Since 2002, because of lack of staff and funding, Ecology has not been able to conduct timely environmental review of new commercially available herbicide active ingredients. RCW 90.48.445 is silent on requiring rigorous evaluation by Ecology for other aquatic pesticides.” This must change if Ecology is to use this EIS to support chemical applications.
4. Chemicals - “Due to the urgent need for a permit for aquatic invasive species management and lack of state resources to develop independent state risk assessments, Ecology has tentatively decided to issue this DEIS and the Aquatic Invasive Species Permit without having independently conducted state risk assessments for some of the chemicals or products listed for use.” Same as above.

It seems challenging to justify the use of chemicals and pesticides with the above statements. Ecology has a responsibility to ensure that actions taken under general permits issued will have minimal “collateral damage” to native species and their ecological functions in whatever ecosystem it is being used in. Specific to Puget Sound, currents and winds carry anything applied - correctly or not - to areas far away from the intended area of application potentially having an effect on native species. To not know what will be impacted because of a “lack of information” due to a “lack of staff and funding” or a “lack of state resources” cannot be accepted. There has to be clear and compelling evidence these chemicals were chosen due to their safety and effectiveness in addressing the problem. While there is no question non-native invasive aquatic species are a risk, making a decision without an adequate understanding of what the long-term consequences of the action proposed is a far higher risk. Until there is compelling evidence showing the use of pesticides and chemicals in the waters of Puget Sound is effective and at the same time have minimum impact to the native species this should not move forward.

Specifically, this permit should not be used to increase the amount of chemicals in our waters to treat invasive species such as tunicates that increase with the expansion of aquaculture. Willapa Bay is already an example of an ecosystem that has been changed into a “production estuary” vs a conservancy estuary due to the use of chemicals by the shellfish industry to control burrowing shrimp and spartina. Native species in Willapa Bay and Grays Harbor have been significantly reduced by the long term application of chemicals and we do not want to see that happen in Puget Sound.

Thank you for considering these thoughts as the Department of Ecology considers how to deal with a very real problem in an effective manner.

Sincerely,

Laura Hendricks, Chair
Shorelines and Aquaculture Sub-committee
Water and Salmon
Sierra Club, Cascade Chapter
(253) 509-4987

Commenter #10 - Steve Bova - Interested Party

This process is flawed! THE PERMITS AND ENFORCEMENT FOR PESTICIDE APPLICATIONS ARE JUST LIKE THE OIL DRILLING PERMITS,CORRUPT! Spartina and shrimp control with chemicals go hand in hand! The people in charge of permits should NOT be in charge of compliance/enforcement and/or inspections.(look what happened in the gulf). Between accidental oil spills and deliberate polluting by other corporate entities, marine life doesn't have a chance! After researching gray whale migrations following the recent wave of apparent starvation deaths, it became clear to this whale watcher what is probably happening. Since the beginning of time these massive creatures migrated along our coast feeding in and out of estuaries on mud and ghost shrimp. Today however, a powerful and greedy Pacific Coast Shellfish Growers Association somehow acquired a free pass (permits) since 1964 to chemically eradicate shrimp in Willapa Bay and Grays harbor, WA. The shrimp populations have been decimated to near extinction! (ask NOAA). Take two large estuaries out of the equation and, well, you're getting the pictures!(DEAD WHALES) Here's the kicker; The WA state Department of Ecology is still giving out permits to aerial spray carbaryl and the permitting of other chemicals for more shrimp control! This makes no sense what so ever!

Again, the people in charge of permits should NEVER be in charge of compliance/enforcement and/or inspections!

Thank you, Steve Bova

Commenter # 11 - Paul Meury - Recreational Oyster Grower

Ms. Hamel:

As a longtime StreamTeam/beach restoration volunteer who also recreationally grows oysters for water quality purposes, I have major concerns about the proposed permit to apply multiple types of chemicals in the South Puget Sound area.

We have totally inadequate flushing/exchange of water in this area and the idea of applying poisonous chemical pollutants does not make sense to me. I am very concerned about side effects which could reduce the diversity of species present in the water as a result of by-kill.

In addition, cordoning off waterways or beaches for a minimum of 24 hours after application takes away the ability of the public to enjoy the Sound and impinges on the rights of waterfront property owners.

Finally, this has the potential of becoming a fiscal disaster for the county due to the right of property owners to demand a lower value assessment as a result of this action furthering the industrialization of the Sound. Prime view/recreation property will be fundamentally changed to the detriment of many.

Thank you for giving me the opportunity to comment of the proposal,

Paul Meury

Commenter # 12 - Sylvia Haase - Interested Party

Subject: Are you SERIOUS?

I cannot believe that the ECOLOGY department would allow this, and I am totally appalled. WHO is the "Ecology Department"? Who is pushing the pesticide program? Isn't the water polluted enough? We are called to be good stewards of God's Creation.....what are you called to be? The Reverend Sylvia Haase

Commenter # 13 - Sue Minahan, Donna Ewing - Interested Parties

In view of the numerous questions about this proposed action it seems that the wiser course is to determine more definitively the possible unintended consequences of this proposal. It smacks of throwing out the baby with the bath water. Until more is known about the impact of this action on desirable, native species we write in opposition to this action.

Thank you for the opportunity to comment.

Public Hearing Oral Testimony

Let the record show that it is 2:42 on Monday, June 7th, 2010. And this hearing is to hear testimony for the aquatic invasive species permit. It's being held at the Lacey Public Library at 500 College Street SE, Lacey Washington, 98503. Notice of this hearing was published in the Washington State Register. Additionally, a press release was issued and also several interested parties were notified by email, I believe.

So, what we're going to do is when I call your name, I'll have you come up, have a seat here, speak into the microphone, give your name, address and affiliation if any, for the record. And then, after Keith goes, if Laura's back here, we'll have Laura go. And then I'll just have to close things out and we'll all say goodnight.

Come on up, Keith.

Oral commenter #1 – Keith Staurum representing the Independent Shellfish Growers of Washington State

My name is Keith Staurum. I'm the president of the Independent Shellfish Growers of Washington State. We have 329 members now, after the Greenfest. And I live at 25814 Sandridge Road, in Nahcotta, Washington. I'm also the oyster farmer for the Moby Dick Hotel and Oyster Farm.

I'm here to make comments on the NPDES Permit Draft. And, the things that I'd like to comment are this:

#1. I think if there're any private entities going to be applying to use this permit are allowed to use it under special needs, especially if it has anything to do with aquaculture, that independent shellfish growers are invited to attend and comment and address the issues of the other people from the industry. I also would ask that nobody else be used to apply the chemicals from this particular permit. That it be under the direct control of Washington State in some form of some agency. No private companies, no independent companies. And, that science be used to the best of the ability that we have. Peer reviews from other countries be used. And, that we make sure that this permit looks at everything – looks at the businesses, addresses issues of everything that's going to surround anytime that we apply pesticides or herbicides into the waters. I believe in Washington State, pesticides covers both of those. So, I think the Department of Ecology should keep it under their control and not issue it out to the Department of Fish & Wildlife. I think that they can give them guidance on how to use it. I think that the WSDA, due to the Spartina eradication program and some of the missteps taken there should not have the ability to use the permit or to use it as a blanket permit in any way, shape or form.

I believe in the Department of Ecology. I think they do a great job. I think that this permit is a step in preventing some things. I think that the marine waters are a lot different than the fresh waters in that we should address those issues. I also will be submitting some paperwork and studies done on some of the chemicals that are on the list that can be used here, and their names I think should be added to the list - their product names, what they go by, such as Polaris or Aquaneat or anything like that, instead of just what the chemical name is. That way, people

can understand what it is and possibly can go read a label at a grocery store and find out what it is and where it should be used. That's pretty much all I have to say. I thank you for the time.

Did we lose.....did you want to go ahead and testify?

And, if you could state your name and address and affiliation for the record. And, just speak into the microphone.

Oral commenter #2 – Laura Hendricks representing the Sierra Club

My name is Laura Hendricks, representing Sierra Club. Address is 3919 51st Ave. Ct. NW., Gig Harbor Washington, 98335.

The Sierra Club interest is on salmon recovery and the other recovery efforts that are going on. We are concerned that any amount of poisons in the water environment are contrary to salmon recovery. And, even though I know salmon recovery has been going on for years, obviously it's not working terribly well. So what we've been doing, we need to do better. And, if introducing more poisons in the water, we don't consider that an improvement. We see it as going backwards.

We do understand invasive species in lakes and contained water systems as a necessity in certain things, but what we're concerned about mostly is marine waters and a fluid environment. And, we're also concerned that any industry – we need to look at not just their profit but the effect on all native species and where this is going. We're particularly concerned because we have a document called the integrated pest management document plan for bivalves in Washington and Oregon. In that meeting that I attended they talked quite a bit about using pesticides to make their goals of more productivity for the shellfish and in that discussion they talked about the burrowing shrimp, the crabs, especially Japanese eel grass and some other things that certainly heightened our alert status in all this. And, we do not want to see the Department of Ecology to be instituting plans where the intention is to deal with invasive species that are doing environmental harm, and it turns out that we are using these to increase the profitability of an industry. So, that's my testimony. Thank you.

Thank you.

So, I am going to, just generally, for the rest of the room here – written comments can still be submitted electronically at the email address provided on the board up here. Or, to KathyHamel@ecy.wa.gov. Comments must be mailed by no later than 5 PM on June 11th to be considered. The address again is up on the board. And, all testimony received at this hearing along with all written comments received by 5 PM on June 11th at 5 PM will be part of the

official hearing record for this permit. After today's meeting Ecology will respond to all comments received today and during the public comment period in a Response to Comments. All the public comments will help Ecology make a decision about the final permits. All parties of record will receive notice when Ecology's Response to Comments is available. On behalf of the Department of Ecology, thank you for coming. I appreciate your consideration and courtesy. Let the record show that it is now 2:50 on June 7th, 2010 and this hearing is officially closed.