October 14, 2010

Response to State of Washington, Department of Ecology, Aquatic Plant and Algae Management National Pollutant Discharge Elimination System State Waste Discharge General Permit September 1, 2010 Draft

Item 1) Page 7, S1.A.2.a.ii (1)

SePRO Corporation Comment: By setting a fixed distance for area of application, the permit conditions do not factor in site specific lot sizes and area of weed infestation. These limitations may result in poor efficacy due to high dilution (as a result of very small treatment areas) and/or require higher rates of herbicide necessary on a square foot or acre basis. We recommend changing the condition in S1.A.2.a.ii as follows, "individual herbicide applications along a shoreline line require a minimum of 50 feet or 40% of an individual lot shoreline, whichever is greater."

Item 2) Page 15, B.5.

SePRO Corporation Comment: The active ingredient penoxsulam: 2-(2,2-difluoroethoxy)-6-(trifluoromethyl)-N-(5,8-dimethoxy[1,2,4]triazolo-[1,5c]pyrimidin-2-yl)-Benzenesulfonamide) is labeled for management of freshwater submersed, emerged and floating aquatic vegetation (e.g. cabomba, Brazilian elodea, Eurasian watermilfoil, hydrilla, sago pondweed, water pennywort, frogsbit) for use on aquatic sites and is registered by the Washington Department of Agriculture. We suggest penoxsulam be added to the list of approved active ingredients for use under the conditions of this permit.

Item 3) Page 15, S4.B.5.a,b,d,e

SePRO Corporation Comment: To remain consistent throughout the permit, we suggest Department of Ecology remove reference to tradenames for the dipotassium salt and amine salt of endothall. As an example, the amine and ester formulations of 2,4-d are referenced by chemical name not tradename.

Item 4) Page 19, Table 3

Treatment Limitations Section

Active Ingredient	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
2, 4 – D (amine)	Yes for fish – also check timing table for other sensitive species	Swimming advisory during treatment, and for 24-hours post-treatment (in the treated area)	**Control projects only**: Do not apply within 400 feet of an outlet stream if there is an outflow.	Ensure that residents drinking lake water turn off their intakes and do not resume drinking treated water for 28 days following application. As an alternative to waiting, treated water may be used for drinking once the 2,4-D level in the intake water is determined to be 0.07 mg/L or less, or the applicator complied with label setback distances.
2, 4 – D (ester)	See other specific restrictions – Yes for fish – also check timing table for other sensitive species	Swimming restriction during treatment, and for 24-hours post-treatment (in the treated area)	None	Do not use in salmon-bearing waters.

SePRO Corporation Comment (a): Why is there a 400 foot setback limitation near an outlet with outflow for for 2,4-D amine? Why is there a difference between the 2,4-D amine and ester formulations? The 2,4-D product labels do not have setback distances for outlets listed and we are unaware of any data referenced in this permit or fact sheet supporting this setback.

SePRO Corporation Comment(b): What data was referenced to establish a 28 day restriction prior to consumption of water treated with 2,4-D amine, assuming no water analysis is conducted? Why is there a difference in drinking water restriction between 2,4-D amine and 2,4-D ester applications?

SePRO Corporation Comment(c): The 2,4-D amine label for Sculpin G provides both a drinking water setback distance (based on application rate) and language if no setback distance is used, a waiting period for at least 21 days after application, unless water analysis is conducted to confirm concentrations are 70 ppb or less at the water intake. We suggest this table directs the user to following the 2,4-D label specific precautions and restrictions.

Item 5) Page 21, Table 3

Active Ingredient	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Sodium carbonate peroxyhydrate	No for fish, but check timing table for other sensitive species.	Swimming advisory during treatment, and for 2-hours post-treatment (in the treated area	Do not treat shoreline emergent vegetation or algae	None

SePRO Corporation Comment (a): Sodium carbonate peroxyhydrate is an algaecide and thus the treatment limitations statement should be corrected by deleting algae.

Triclopyr TEA	No for fish, but check timing table for other sensitive species.	Swimming advisory during treatment, and for 12-hours post-treatment (in the treated area)	Aerial applications are not allowed.	Ensure that residents drinking lake water turn off their intakes and do not resume drinking treated water for 28 days following application. As an alternative to waiting, treated water may be used for drinking once the triclopyr level in the intake water is determined to be 0.4 mg/L or less, or the applicator complied with label setback distances.

SePRO Corporation Comment (b): What data was referenced to establish a 28 day restriction prior to consumption of water treated with triclopyr TEA, assuming no water analysis is conducted? The triclopyr TEA label for Renovate OTF has specific guidance on setback distances (by treatment area and rate applied) and water analysis requirements related to treatments near potable water intakes. We suggest this table directs the user to follow the label specific precautions and restrictions.

SePRO Corporation Comment (c): What data were referenced to support prohibiting the aerial application of triclopyr TEA? The triclopyr TEA label for Renovate 3 has specific guidance on aerial applications and best management practices for drift management. We suggest this table directs the user to follow the label specific precautions and restrictions.

Item 6) Page 22, Table 4.

Table 4: Specific Restrictions on Application of Products for Inactivation of Phosphorus

Nutrient Inactivation Products	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Alum	➢ No for fish, but check timing table for sensitive species. ➢ Timing should address aquatic plant biomass that may interfere with inactivation of sediment phosphorus (requiring early spring or fall treatment).	None	➢ Application must cease when wind speed is greater than 15 miles per hour ➢ Powdered alum must be mixed with water to form a slurry before applying to the water surface. ➢ The pH of lake water during treatment must remain between 6.0 and 8.5 based on lake average. ➢ Only aluminum compounds suitable for water treatment may be used. ➢ Buffering materials must be available for use.	➢ A jar test must be completed prior to whole lake treatments only if a buffer other than sodium aluminate is used or a ratio of liquid alum to liquid sodium aluminate differs from 2:1 by volume. ➢ An on-site storage facility is required for any treatment requiring 9,000 gallons of alum or more, or the project proponent must have a plan to store any unused alum or buffering products. ➢ Follow the monitoring requirements in S6.B.

SePRO Corporation Comment: Why is there no reference to approved buffering agents (page 9, S1.A.2.c) but there is specific reference to buffer types and uses in Table 4 (Other Specific Restrictions)?

SePRO Comments on WDFW Treatment Windows for Aquatic Herbicide Treatment

We do not feel this document should be referenced as a condition of the NPDES permit due to its unreferenced and potentially inaccurate statements, potential to unnecessarily hinder aquatic plant management efforts and the subjective and vague language that may allow for unnecessary law suits for violations in compliance. It is unclear in many instances how to comply when insecticide impacts are lumped in with the aquatic herbicides regulated under the draft permit. Any WDFW concerns should be addressed as part of the permitting process with WADOE when and if they may apply to a particular product or proposed treatment.

In the event, the Department of Ecology elects to keep a version of this table in this NPDES permit we offer the following comments for consideration.

General Comments:

Revisions to this document appear significant for the new permit and have been circulated here without any apparent public or end-user feedback to this point. This lack of input would seem contrary to public comment requirements of proposed NPDES permit changes. In addition, as an addendum to the main general permit subject to periodic revision by DFW, the timing requirements appear outside the normal process and schedule for NPDES permits. The treatment timing windows are a major component of the permit that should not be updated without an opportunity for public comment.

The Treatment Windows table and its supplemental supporting information make no distinction between toxicological profiles or use characteristics of various aquatic herbicides. This lack of distinction unreasonably eliminates all aquatic herbicides from management consideration when a more measured, product-specific analysis relative to particular priority habitat and species would be a more effective approach to protecting species of concerns from the threat of invasive aquatic plants and harmful algae.

Frequent statements with the table describe the need to "Avoid Treatment.". This language creates unproductive liability risk for the use of herbicides by automatically creating a decision environment where a decision to treat is readily subject to legal challenge. Such language should be dropped in favor of statements that indicate requirements for site-specific discussions with DOE and DFW on proposed herbicide use.

Specific Comments:

Pg. 1 – "For all lakes not listed below, the annual treatment window is July 15 – October 31."

Comment: This overarching statement sets an arbitrary window for treatment without any technical discussion of why this window is necessary where priority species are absent. It would seem more appropriate to state that lakes not on the list are subject to individual site-specific review on treatment timing based on the herbicide or algaecide formulation being proposed for treatment.

Multiple References starting pg. 2 and also page 28 – "If treatment necessary for control of noxious weeds, then consult with WDFW to determine treatment areas to avoid impacts to Columbia spotted frog.", "Pesticides and herbicides should be avoided in, or adjacent to, water bodies used by these frogs."

Comment: What data exist that document impact of today's registered aquatic herbicides to spotted frog? While habitat modification seems to be the concern and should be considered in management planning, the base DFW document from 1991 on management recommendations for this and many species of concern (WDFW Priority Habitats and Species management recommendations, http://www.wdfw.wa.gov/hab/phsrecs.htm) mentions possible chemical effects on larval development as rationale. Do scientific data exist that supports a conclusion of specific risk from aquatic herbicide use or is this a generalization made long ago about chemicals that has carried over from this 20 year-old document citing even older research?

Multiple References starting pg. 2 and also page 28: "Through July 31, stay 1,000 feet from heron rookeries, or consult with WDFW Region 5 office at 360-696-6211 to determine how to minimize disturbance of nesting herons." "Herbicide application can also remove small fish and amphibians from the heron food supply."

Comment: Physical disturbance of nests from –human activities (boats, noise, etc.) seems a reasonable concern. Are there any current notices or signage in these areas to indicate people are to stay 1000 feet from heron rookeries? If not, then this restriction should not be specific to activities associated with treatments and deleted from this permit. What data documents that herbicide application (per the approved list in this NPDES permit) removes small fish and amphibians from heron food supply? This statement should be deleted from the permit language unless supported by scientific documentation.

Multiple References starting Pg. 6 – "Consider waiting annually until after July 15 (to avoid impacts to large mouth bass)."

Comment: What data are being utilized to set July 15 as start of window? Presumably this related to bass reproductive behaviors, but there is no reference in table or data for rationale here.

Most of Table on Page 28 (some material already commented upon above)

"1. Cavity nesting ducks and Waterfowl concentrations: The use of herbicides or pesticides near wetlands may adversely affect ducks and waterfowl by lowering the numbers of invertebrates and aquatic vegetation."

Comment: EPA FIFRA Section 3 Label Risk Assessments and Supporting Data would suggest that aquatic herbicides have minimal risk of adverse effects to aquatic invertebrates when applied according to label use directions. What data exist to support adverse effects of aquatic herbicides on invertebrate populations to the detriment of ducks and waterfowl? In terms of aquatic vegetation, aquatic herbicide selection, formulation selection and application strategies can mitigate any risk of non-target aquatic vegetation changes potentially detrimental to ducks and waterfowl. A blanket statement on potential

adverse effects of management with herbicides seems counterproductive to a science-based, site and condition-specific assessment of habitat goals and best management strategies that may include herbicide use. The inclusion of the general term 'pesticides' in the same statement with herbicides also seems to lump the two chemical groups together when in reality, registered aquatic herbicides typically have much reduced risk profiles for invertebrates and other non-target fauna relative to other pesticide agents such as insecticides.

"5. American white pelican: Avoid using any insecticide or herbicide in American white pelican nesting or foraging habitat. Organochlorine, organophosphate, and carbamate insecticides can be highly toxic to birds and fish. "

Comment: Reiterating the point made in previous comment, aquatic herbicides appear to be grouped here with multiple types of insecticide products. The toxicological profiles of today's registered aquatic herbicides (none of which are organochlorine, organophosphate or carbamate) are markedly different from those of such insecticides, and it is scientifically invalid to compare potential effects of these products on pelican habitat to those that might be expected from insecticide application. Secondly, the "or foraging habitat" statement is far reaching and could be interpreted to include any part of any waterbody within the range of the white pelican. For these two reseasons, this entire reference should be summarily dropped from supporting information for the treatment window table.

7. Pacific (western) pond turtle: Herbicides should not be applied where western pond turtles occur if such action will destroy all available cover in all or part of a wetland.

Comment: This statement creates the impression that aquatic herbicide use typically has some risk of destroying all available cover when aquatic herbicide applications are generally conducted in a way to specifically avoid this outcome. This statement should be changed to again suggest the need for site-specific assessment of proposed management action if the turtle species of concern is present.