

AQUATIC PLANT AND ALGAE MANAGEMENT GENERAL PERMIT

Full Comments

March 17, 2021

This document is a record of the full comments which are summarized in **Appendix C: Response to Comments** of the Fact Sheet. The comment period for the Draft Aquatic Plant and Algae Management General Permit ran from October 21, 2020 to December 7, 2020. Ecology received written and emailed comments during the comment period. For more information on these comments and the comment period, contact Shawn Ultican at shawn.ultican@ecy.wa.gov.

Patrick M. Pockat

Submit Date: 10/28/2020

Is it okay to manage toxic algae and sludge through aeration? If so do we need to submit a plan. This seems like the least invasive at to maintain a man made lake.

Thank you

Dianne Girard

Submit Date: 12/06/2020

people who applied for the permits should be able to prove they are indeed have authority to obtain and use the permits.

the permit should not be used regardless of need. it should be monitored, and if the weeds the chemicals are controlling are now managable by other means - the other means should be used.

-there should be more accountability on the companies who are conducting the spraying - records on where they sprayed, and the dept of ecology should monitor them to make sure they are spraying correctly

if they are spraying on lakes (mine for example) the dept of ecology should determine who owns the rights to spray. do the water lillys belong to the waterfront homeowner to manage, the governing body of the association?

Anonymous

Submit Date: 12/07/2020

Comment 1:

S2. APPLICATION FOR COVERAGE, B, 1

b. The Permittee must submit a map of the permit coverage area showing where pesticides may be applied (for example, a map of the entity's jurisdiction).

A Permittee should also submit documents to prove the sponsor has jurisdiction over an area to be treated. For a private property, a property survey or recorded parcel map showing the boundaries of jurisdiction should be submitted so that areas are not illegitimately treated.

Comment 2:

APPENDIX A – DEFINITIONS

Sponsor

For treatment on individual lots, the sponsor must have the authority to contract for aquatic plant and algae management within the lot boundaries

A sponsor should prove it has authority over areas for treatment within lot boundaries by providing property documents, such as a property survey and deed with legal description. Establishing lot boundaries is important for lakes surrounded by lots in a plat. Some lots extend into the bed of a lake and are acceptable for coverage. However, some lots stop at the shoreline and are not acceptable for coverage. The bed of the lake might belong to a community organization or homeowner association, which would require a separate permit.

Likewise, under VIII Sponsor Certification of the NOI, a sponsor certifies that it has "the authority to administer" treatments to the area of water. A sponsor should provide evidence of its authority.

Comment 3:

In relation to the previous two comments, if requested by residents, Ecology should monitor treatments to ensure the Applicator only treats areas the sponsor has authority over and are under permit coverage.

Comment 4:

When treating multiple properties or areas of a body of water, an Applicator should take pictures each time a property is treated, record GPS coordinates when treating a property, and submit the pictures and GPS coordinates to Ecology. This would ensure that an accurate record of treatments for properties is available to interested parties, such as nearby residents, and the public as it has a right to know. Treatment maps are posted prior to treatments, but an Applicator can choose whether to treat a property or not depending on the effect of previous treatments.

Comment 5:

S3.DISCHARGE LIMITS

E. Identified Wetlands

The Permittee may treat only high use areas to provide for safe recreation (e.g., defined swimming corridors) and boating (e.g., defined navigation channels) in identified and/or emergent wetlands. The Permittee must limit the treated area to protect native wetland vegetation.

If Ecology is notified that a proposed treatment area has wetlands, the Permittee should conduct a survey of the area to determine appropriate treatments in accordance with "high use areas to provide for safe recreation...and boating..."

The survey should be performed by a botanist. And the person conducting the survey must not have a financial or personal interest in the treatment.

Comment 6:

There should be one permit application per property owner to ensure that an applicant goes through the proper review process. Multiple owners in an area along a body of water should not be able to apply for one permit.

In addition, a community organization or non-profit organization should not be able to apply for a permit on behalf of multiple property owners because an organization does not have authority over such properties. Membership in an organization does not transfer property rights or authority.

Don Russell

Submit Date: 12/07/2020

Nat,

This Permit is a combined NPDES and State Waste Discharge General Permit that is dependent upon the existence, adequacy and enforcement of Washington State Surface Water and Groundwater Standards (Criteria) that are presumed to be protective of aquatic life, salmon being of paramount concern in our state.

There are four APAM recognized phosphorus sequestration chemicals that the APAM General Permit recognizes and addresses. These are aluminum ions and compounds, calcium ions and compounds, iron ions and compounds and lanthanum ions and compounds. All of the ions are soluble, most of the compounds are insoluble depending on pH and redox conditions.

Aluminum ions are toxic whereas aluminum compounds are generally not toxic. The USEPA criteria for aluminum cites the conditions under which aluminum ion concentrations are harmful to aquatic life. Ecology does not have a water quality standard (criteria) for aluminum that is protective of aquatic life. Therefore there is no limit to the amount of aluminum sulfate and sodium aluminate saturated solutions that can be applied to a lake as long as pH is controlled within specified limits. The result has been ever increasing amounts of these solutions being discharged into state waters. Whereas past alum applications have involved aluminum concentrations in the neighborhood of 10 to 12 mg Al/L of aluminum, the recent Ecology permitted application of alum in Waughop Lake was 80 mg Al/L. This application has had an adverse impact on the lake's post application aquatic vegetation (non existent) and the

fish and waterfowl that depend upon its availability. This application exceeded USEPA aluminum criteria at the time of its application. See the attachment in this regard.

The associated sulfate ion concentration in Waughop Lake of this application increased from 4 mg/L to 220 mg/L. Sulfate ions upon their reduction in lake bottom sediments become reactive sulfide ions and toxic hydrogen sulfide. In Waughop Lake the alum treatment resulted in sulfide/hydrogen sulfide concentrations exceeded USEPA criteria. Furthermore, sulfide combines with calcium and iron to render these natural phosphorus sequestration agents ineffective. Ecology does not have a water quality standard (criteria) for sulfide/hydrogen sulfide that is protective of aquatic life.

Calcium ions and compounds and iron ions and compounds are chemicals of importance to aquatic life in the concentrations typically found in unpolluted surface water bodies. It is this fact that caused me to recommend to Ecology that their effectiveness as phosphorus sequestration chemicals should be included in its APAM/NPDES General Permit as environmentally safer and lower cost alternatives to the application of aluminum salt solutions.

In regard to iron applications I recommended to Ecology granulated iron applications in lieu of an iron salt solution applications for a variety of reasons: (1) Zero valent iron particles are relatively insoluble and rely of their reactive surfaces as a phosphorus sequestration chemical, thus no undesirable and potentially toxic sulfate or chloride ions are discharged into the receiving water body; (2) being relatively insoluble granulated iron particle applications do not affect pH nor do they contribute significantly to the reactive ferrous ion or unreactive ferrous iron compound concentrations in receiving waters, (3) iron particles sequester phosphorus by two mechanisms, adsorption to the iron oxyhydroxide formed on its surface by elemental (zero valent) iron's reaction with oxygenate water and by chemical conversion to insoluble iron phosphate, (4) granulated iron is 100% reactive as a phosphorus sequestration chemical and as a solid granulated material is safe to handle, relatively inexpensive to purchase, transport and apply.

There are three techniques for the application of zero valent iron. One involves the use of very finely granulated iron (3-5 micro particle size) as a powder mixed with water as a slurry and injected just below the water surface to sequester the phosphorus contained within the water column itself. A second involves the use of more coarsely granulated iron (150 micron particle size) application to assure settlement to the lake bottom to sequester labile phosphorus contained in bottom sediments. And a third application technique involves seeding subsurface phosphorus polluted groundwater discharge vents (springs) with larger grain size particles (300 micron particle size) to intercept and sequester orthophosphate ions (monitored as soluble reactive phosphorus SRP) discharging into the lake at these phosphorus polluted groundwater fed spring sites.

The chemical involved in all three of these application techniques is granulated zero valent iron. The particle size of this chemical to be applied depends on the source of phosphorus to be sequestered. Currently the APAM/NPDES General Permit refers to this chemical as iron powder.

The chemical should be identified as granulated iron in recognition of the fact that there are several application techniques, just as there are for other APAM listed chemicals that are available in either granular or liquid form, each requiring its own application technique. The APAM language should be changed to read granulated iron, not powdered iron. The requirement that it be applied as a slurry should be deleted since coarser grain iron particles can be broadcast over the surface of the lake in the same fashion as granulated forms of algaecides and herbicides.

Lanthanum enriched bentonite clay is a proprietary product offered by one supplier rather than be available to all applicators as an open and competitive market item. The result has been more limited use and according to Herrera Environmental Consultants more costly and not as effective as alum.

I do intend to listen to Ecology's December 2, 2020 10:00 AM Hearing. But wanted you to know of my concerns a comments about the Draft document. I do have some further concern that I will convey to you and Danielle after further review of material presented at the Hearing.

Let me know if you have any questions or comments about what I have stated above. My cell phone number is (253) 534-5342.

Best regards,

Don

Don Russell

Submit Date: 12/07/2020

In addition to my below comments I would like to comment on language contained ion Table 3 Specific Restrictions on Application of Products for Sequestration of Phosphorus:

I have already stated that under the Caption Products "Powdered Iron" should be changed to read "Granulated Iron".

Under the caption Treatment Limitations:

"Powdered iron must be applied to the water surface as a slurry" should be eliminated since the appropriate application technique will vary depending upon the particulate size of the granulated iron being applied as noted in the text below.

"Do not apply where anoxic conditions (zero percent dissolved oxygen) may occur, including anoxic conditions created by application of herbicide and algaecide." should be eliminated since any treatment covered under provisions of Ecology's APAM/NPDES General Permit must not lower dissolved oxygen below the limits specified in Ecology's water quality standards as set

forth in Chapters 173-200 and 201A. Furthermore, S4.B.3. states "Algae treatments are subject to additional requirements to prevent dissolved oxygen depletion." so the statement: ",,,condition including anoxic conditions created by application of herbicide and algaecide." is an oxymoron and should be eliminated.

The sequencing and time intervals between various chemical applications (algaecide, herbicide, phosphorus sequestration, et al) in any specific water body to be treated should be determined by the water quality conditions that exist prior to the application of any particular chemical, not by some arbitrary sequencing or time interval prescribed by provisions of the APAM/NPDES General Permit.

Thank you for the opportunity to comment on the draft Aquatic Plant & Algae Management General Permit.

Arthur West

Submit Date: 12/07/2020

Since there is no permit on the DOE website for the Black Lake Flood Control District, nor is this WAG number listed, as noted by the attached screenprint, it is clear that the DOE cannot claim that there is a legally promulgated permit that is still current which would allow any project on that site or by that agency, which has no current permit listed on DOE's website.

Further, the most recent report from the Thurston County Water Quality program finds that there is no algae present in Black Lake since the alum treatment done in 2016 (https://www.co.thurston.wa.us/health/ehrp/pdf/AR19-LAKES/Black_2019_FINAL_2020_0929.pdf) Therefore, there is no need to discharge 300,000 gallons of alum and other toxic inert ingredients into the lake and all the water bodies and aquifers that it connects to next year.

I also include a copy of comments on DOE's new APAM general permit, which provides further information why Black Lake Flood Control District should not have been granted such permit coverage. I am attaching that again here for your convenience.

Therefore, DOE cannot reissue a new permit to the Black Lake Flood Control District next year based on a permit that does not exist this year.

I hope that you take official notice of the requirements to protect the quality and quantity of the water resources of the state of Washington as required by RCW 90.54 and the recent Foster decision that occurred in Yelm of Thurston County, which we believe would necessitate more site specific project level SEPA environmental review and consideration by the DOE's Clean Water Act permitting division in light of the 16 Critical Recharge Aquifer Areas and the State Capital's strategic groundwater reserve, as was noted in prior pleadings on this matter submitted to DOE.

I therefore request that you accept this new information and new citations of law as part of your consideration for the request for Declaratory Ruling and rescind, deny or in some other form prevent APAM NPDES coverage to be issued or reissued to this unlawful flood control agency on a lake that does not flood.

David Egan

Submit Date: 12/07/2020

All property owners within a plat where there is a body of water need to be notified in writing who has submitted an application for an APAM permit, and when the application was submitted.

Plats might include community properties that are equally owned by all owners in the plat. Community properties might be shoreline properties within 1/4 mile of a potential treatment area, or across from a potential treatment area and within 1/4 mile.

All plat owners need to be notified in written form two weeks in advance of any scheduled treatments (who, when, and where).

Citizens for a Clean Black Lake

Submit Date: 12/01/2020

To: Danielle Edelman - Washington Department of Ecology - re: APAM General Permit

We, the Citizens for a Clean Black Lake, (CCBL), are submitting the following comments on DOE's proposed Clean Water Act APAM NPDES permit for aquatic plant and algae management for DOE's program which DOE administers under federal contract and delegation of federal authority to issue coverage letters for the use of the pesticides, herbicides and chemicals used in the waters of the state of Washington. CCBL is a community group dedicated to protecting the ecosystem of Black Lake and reducing the amount of herbicides, pesticides and chemicals used in the environment of this area which includes the strategic groundwater reservation of Thurston County and 16 Critical Aquifer Recharge Areas. Such chemicals are poisons to surface and groundwater, and to the fish, wildlife, forests and people of the natural environment which are adversely impacted by the usage of such materials due to their use on site and their downstream flow which degrades habitat, biodiversity and the health of the ecosystem. CCBL believes strongly that they should only be used as a last resort and not as a matter of routine as currently practiced.

As an example of the problems we have noted in DOE's current APAM permit program, we note the following from recent activities on the issuance of permit coverage to the Black Lake Flood Control District for which DOE issued permit coverage for an alum treatment of 300,000 gallons

of alum into Black Lake, despite the fact that the most current water quality report on Black Lake from Thurston County shows that there is no algae in the lake and therefore, no need for any such treatment. (https://www.co.thurston.wa.us/health/ehrp/pdf/AR19-LAKES/Black_2019_FINAL_2020_0929.pdf) As we detailed in our Request for Declaratory Ruling sent to the DOE on November 8, we note the following that shows that the APAM permit issued to the Black Lake Flood Control District was not proper or legal.

As we've noted, evidence shows the Black Lake Flood Control District was formed under RCW 85.38 as a Flood Control District and is not recognized by DOE in its definition of "Permittee" as an entity that may obtain permit coverage.

"Legal entities with that authority may include Lake Management Districts formed under chapter 36.61 RCW, Special Purpose Districts formed under Title 57 RCW, Homeowners Associations formed under chapter 64.38 RCW, and groups operating under the provisions of chapter 90.24 RCW"

(<https://fortress.wa.gov/ecy/ezshare/wq/permits/APAMDraftFactSheetPermit2020.pdf>, p.25)

Consequently, since the Black Lake Flood Control District was established under RCW 85.38 instead of as a Lakes Management District, it does not appear to be able to use such a permit.

2. As we noted in our Request for Declaratory Ruling and prior requests to rescind the permit coverage, the BLFCD was created pursuant to RCW 85.38 and RCW 86.09 to be a flood control district to control flooding on Black Lake. However, there is no flooding, no flood control activities or flood control infrastructure on Black Lake, and the BLFCD states in its own documents it never intended to do flood control. These serious problems were found with just a cursory investigation of the creation and use of this flood control district by our members. In the future we strongly suggest that DOE thoroughly investigate the legal authority of permit applicants before issuing any permit coverage, and make this a part of the process used to administer this federal Clean Water Act program.

3. As we also noted in our prior requests on this matter, the general permit and all permits issued beneath it were issued without project level site specific environmental reviews, which were required for Black Lake and all other site specific project level SEPA determinations that required a "reasonably thorough discussion of the significant aspects of the probable environmental consequences of the agency's decision." (*Weyerhaeuser v. Pierce county*, at 38; *Klickitat County Citizens Against Imported Waste v. Klickitat County*, at 633

However, in this case we also noted that non-site specific non-project level environmental reviews conducted by DOE were the basis for DOE's current actions to grant permit coverage, even though these documents were up to 20 years old, well over the limit to render them obsolete in scientific circles and under state law. They cannot be adopted as the environmental review for a site specific project level action which requires a more detailed review as per WAC 197-11-960.

The adequacy of a SEPA environmental determination "involves the legal sufficiency of the data" in the record. (Weyerhaeuser v. Pierce County, at 38: Klickitat County Citizens Against Imported Waste v. Klickitat County, at 633).

"Findings of fact by an administrative agency are subject to the same requirements as those drawn by a trial court." (Weyerhaeuser v. Pierce County, at 35-36. Findings of fact "must be made on matters which establish the existence or nonexistence of determinative factual matters..." (Weyerhaeuser v. Pierce County, supra, at 35-36, referring to In re laBelle, 107 Wn. 2d 196, 218-219, 728 P. 2d 138 (1986)

Numerous other court decisions, statutes and regulations show the purposes of SEPA require governments to fully consider environmental and ecological factors when taking actions that significantly affect the quality of the environment. This is especially true on project level actions versus programmatic, or non-project level actions, and on site-specific actions versus statewide actions. Obviously, the environmental review for one cannot include the detail or necessary parts required for the other, no matter how you try to mix them, as has been occurring with the current administration of this federal Clean Water Act program.

SEPA is concerned with broad questions of environmental impact and requires government to fully consider all long and short term environmental uses, impacts. etc., to provide decision makers with all relevant data about potential environmental consequences leading from any actions taken by them. This information is to be put into an agency record available to the public and administrators to provide a factual and legal basis for a reasoned judgement that balances the benefits of the proposed project against the potential adverse impacts leading from it.

In the case of Black Lake, DOE issued its permit coverage on the basis of documents from 2000, 2002 and 2004, which are inadequate, outdated and obsolete for the projects conducted. Being general permit documents, they lack the detail necessary for a site specific project level EIS as required by WAC 197-11-330, for projects which significantly affect the quality of the environment.

(3) In determining an impact's significance (WAC 197-11-794), the responsible official shall take into account the following, that:

(e) A proposal may to a significant degree:

(i) Adversely affect environmentally sensitive or special areas, such as ...wetlands...

(ii) Adversely affect endangered or threatened species or their habitat;

(iii) Conflict with local, state, or federal laws or requirements for the protection of the environment; and

(iv) Establish a precedent for future actions with significant effects, involves unique and unknown risks to the environment, or may affect public health or safety.

(5) A threshold determination shall not balance whether the beneficial aspects of a proposal outweigh its adverse impacts, but rather, shall consider whether a proposal has any probably significant adverse environmental impacts under the rules stated in this section. for example,

proposals designed to improve the environment, such as sewage treatment plants or pollution control requirements, may also have significant adverse environmental impacts.

The general permit issued by DOE to the Black Lake Flood Control District fails to address the environmental problems in the ecosystem, such as adverse affects to sensitive wetland areas, shallow groundwater aquifers, habitat and the endangered species present there. A report of a fish kill following the alum treatment done in 2016 to the Black Lake Board by residents was not, to our knowledge, relayed to DOE for investigation as required by the terms of the permit.

Further, the general permit takes no recognition of the fact that Black Lake is itself on the 303(d) list for PCB's in rainbow trout tissue samples. Further, it drains north via Black Lake Ditch, which violates dissolved oxygen and fecal coliform standards, into Capitol Lake and Budd Inlet, also 303(d) impaired waters. No environmental review has been done to determine the contribution of these herbicide and alum treatments on the low levels of dissolved oxygen in these water bodies.

The general permit also does not acknowledge the effects of these treatments on the 16 Critical Aquifer Recharge areas that are in the Black Lake Basin or on the strategic groundwater reserve established by WAC 197-591 which stipulates that "local governments with land use authority...exercise their authorities in such a manner as to protect the quality of the public groundwaters reserved for future water supply by this chapter." Black Lake is in hydraulic continuity with this groundwater reserve, the drinking water supply for Olympia, Tumwater and Lacey, yet no environmental review was done to consider the possible contamination of this vital irreplaceable resource that our children drink.

WAC 173-200-030, the Antdegradation policy, seeks to ensure the purity of the State's water and protect the natural environment. It states 'Existing and future beneficial uses shall be maintained and protected and degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall not be allowed.'

Obviously, SEPA and these other laws and permit conditions were ignored by DOE through the issuance of a general APAM permit for Black Lake without conducting a thorough scientific site specific project level review of the consequences. However, DOE's current use of obsolete non-project level SEPA determinations made for the whole program and then adopted as project level site specific SEPA determinations for DOE's permit coverage for site specific projects in various different sites across the state is clearly unlawful. This problem needs to be fixed in the new permitting program. Obviously, this does not follow SEPA.

CCBL also requests DOE to take a more rigorous approach to the use of pesticides, using them only as a last resort. In the case of Black Lake, the original Integrated Vegetation Management Plan upon which the DOE based its 2013 Determination of Significance called for 2 years of herbicide use followed by mechanical harvesting of weeds. This plan has not been followed as the Flood Control District has used herbicides annually, even though herbicide use was not authorized in its plan after 2014. DOE should have required a new project level site specific

environmental review for any project after 2014 that required the use of herbicides or chemicals in the water for treatment options other than mechanical harvesting. DOE has been lax in allowing the routine use of these chemicals when mechanical harvesting would be equally efficacious without the deleterious environmental and health effects.

Further, the Black Lake Flood Control District is planning to do yet another alum treatment in the coming year, even though Thurston County's water quality report for 2019 noted that no algae blooms had been detected in the lake since the 2016 alum treatment. What then justifies adding 300,000 gallons of chemicals to the lake in the coming spring? DOE should not be issuing a permit to allow this wholesale dumping of chemicals into our water supply.

RCW 90.48.080 states "It shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department, as provided for in this chapter." Yet, according to the 2015 study on the Black Lake Basin, "Guiding Growth - Healthy Watersheds" conducted by Thurston Regional Planning Council in conjunction with the EPA and Thurston County, most of the nitrate and phosphorus pollution in Black Lake originates from stormwater runoff and on-site septic systems around the lake. WAC 173-200-030, requires that "All contaminants proposed for entry into said groundwaters shall be provided with all known, available, and reasonable methods of prevention, control, and treatment prior to entry." Why then is DOE permitting the use of chemicals to cover up the failure of the county government to control the primary sources of pollution in Black Lake? The continued use of these chemicals will inevitably lead to the ultimate death of the Lake, all for lack of reasonable preventive measures that are the proper function and responsibility of the County's Department of Environmental and Public Health and the complicity of DOE by permitting their use. As a matter of fact, DOE should have known this as the Black Lake IAVMP which DOE used as the basis for its issuance of the APAM general permit to the BLFCD specifically refers to septic systems and stormwater runoff as the major cause of nutrient loads.

DOE is aware of the \$10.8 billion settlement against Bayer/Monsanto for damages caused by the use of Roundup and its active ingredient glyphosate. Glyphosate has been determined to be a carcinogen, even though it is recognized as being considerably less toxic to the environment than similar herbicides. In light of the documented dangers of these poisons, we urge DOE to suspend its use and that of other chemicals known to be even more toxic, and to err on the side of caution as best available science and protection of the public health requires. Thurston County, for one, conditions or bans the use of glyphosate, imazapyr, dipotassium salt of endothall, and diquat dibromide in recognition of their dangers, yet under DOE's general permit, the Black Lake Flood Control District was allowed to apply these poisons to waters that constitute the habitat for endangered species and that connect to the groundwaters of the State's capital. This is in addition to the usual chemicals and poisons draining into the lake from stormwater and septic systems, whose interactions and cumulative effects are not even considered, places an enormous toxic burden on the ecosystem. We also note that scientific

investigation of the safety of alum treatments is ongoing, with reputable researchers claiming that the current APAM permit provisions do not adequately protect aquatic life from its adverse effects, as witnessed by the fish kill in Black Lake in 2016. In fact, studies published on PubMed cite evidence that long-term alum treatments actually contribute to an increase in toxic algae (<https://pubmed.ncbi.nlm.nih.gov/26865010/>), change the lake's macroinvertebrate community with unknown consequences (<https://pubmed.ncbi.nlm.nih.gov/23099946/>), and may delay the long-term recovery of lake ecosystems. <https://pubmed.ncbi.nlm.nih.gov/31152945/>.

DOE should also take a longer view of what the future holds for us in the light of climate change and the lifestyle changes initiated and likely to continue from the present COVID pandemic. A USGS study done in 1988 already warned against additional withdrawals from the ground water system of northern Thurston County stating that the possibility of increased natural recharge on a long-term basis was remote, especially in light of increased residential development and central storm sewers. The 2007 report by the Washington Biodiversity Council noted 500 species of conservation concern, and since then increased development pressures, especially in the Puget Sound area, have only intensified. Kris Johnson, President of the Association of Washington Businesses, commented at the organization's Rural Vitality Summit in November that more people are moving to rural areas and telecommuting, which puts more stress on our already fragile water resources. Climate change adds to the pressures on streams all over Washington which are struggling to maintain minimum flows, thereby threatening the survival of fish and other wildlife and the recharge of aquifers.

Further, DOE should take official and judicial notice that RCW 90.54 which states water resources shall be protected for the natural environment, and the recent Foster decision require that DOE "shall" protect the quantity and quality of the surface and groundwaters of the state of Washington to maintain fish, wildlife and the natural environment, and "may" protect other uses, even when "water quality" and other such mitigation efforts are proffered, which in actuality as in the BLFCD proposal to dump 300,000 gallons of alum into the surface waters even though there is no algae, severely impacts the environment by putting even more chemicals into the surface and groundwaters and into wildlife habitats. Obviously, DOE needs to be extra cautious in light of an unknown future with the warming climate and threats to water quality, since it is far more difficult and costly to restore, rather than protect an ecosystem.

In light of the above, we respectfully request DOE modify its new permit program to fix these problems with the current program and to prevent any new APAM permits and the reissuing of permits to any and all organizations that have previously applied for the permit until DOE has conducted site specific project level reviews under SEPA and other laws in order to protect the surface and groundwaters of the state of Washington and the United States, and that this program must be based upon a new NEPA/SEPA environmental review for the state's administration of this federal program so as to provide a requirement for each permit coverage to be accompanied by an individual site specific project level environmental review, not just a non-project programmatic statewide review that lacks the necessary detail for DOE's project

level permitting actions, this review to be done in a manner that protects water quality in accordance with all water quality provisions of the state and federal Clean Water Act NPDES permitting programs.

Based upon our findings in our investigation, CCBL believes that under the law and under its contract with the federal government, DOE has the legal and sacred responsibility to protect our natural resources. We cannot afford to be poisoning the very water all life depends on for reasons of cost or convenience. Our water is priceless. Our health is priceless. Life is sacred. Protect life.

Thank you very much for your consideration of our comments. Please contact the undersigned for additional information.

Esther Kronenberg - Co-Chair Citizens for a Clean Black Lake - wekrone@gmail.com
Suzanne Kline - Co-Chair Citizens for a Clean Black Lake - suzannedkline@gmail.com
Jerry Dierker - Citizens for a Clean Black Lake - (360) 866-5287

Citizens for a Clean Black Lake

Submit Date: 12/07/2020

Please include the attached document in the public comments on the re-issuance of the APAM General permit on behalf of Citizens for a Clean Black Lake.

Thank you,
Esther Kronenberg
Suzanne Kline
Jerry Dierker

Note: The document attached contains the same text as the other comment from Citizens for a Clean Black Lake.

Northwest Aquatic Ecosystems

Submit Date: 12/07/2020

Page 7 Aquatic Nuisance Plant Control
#3 Cumulative percentage of littoral zone treatment.

We have found very little data that supports the percentages Ecology mandates within the permit. NWAEC does support the need for littoral zone plant coverage. Perhaps Ecology can provide us with the data relied upon that resulted in the percentages identified in your permit. Under the assumption that your determination is generally correct a small percentage of lakes may not fall within these generic guidelines. Similar in nature with the the applicants ability to

request a modification to the fish timing window on a lake by lake basis this same opportunity to seek a modification to the littoral zone coverage should also be available. Ecology needs to include the same process outlined on page 7 related to fish timing window modifications for littoral weed zone modifications.

Page 27 Mitigation for Protection of Sensitive.....

Ecology needs to address the ability to control sensitive weed species in and around community swimming areas or community fishing docks. If a water body has sufficient sensitive weed coverage lake wide then removing such from public areas that create safety hazards should be made available to the applicant. The draft permit does not consider safety within these high use areas and believes that public safety is secondary to weed growth. The current permit allows for no control within these areas if a sensitive weed is present. Once again some type of review of these high use areas on a lake by lake basis should be included within the permit instead of the current generic no.

Iron use to sequester nutrients.

Use of iron should not just be limited to slurry applications. Some iron sizes that may be necessary to produce results possibly will not disperse well as a slurry.

Northwest Aquatic Ecosystems

Submit Date: 12/07/2020

In reference to the dissolved oxygen monitoring requirement for total lake toxic algae treatment and the proposed standard that would disallow such treatment. Science strongly supports the need to treat toxic blooms in a timely fashion. Science has also shown that non treatment of toxic blooms exposes the public to serious acute and chronic health hazards. Human health must be taken into consideration before establishing criteria that would increase such unnecessary exposure.

Science also has shown that changes in dissolved oxygen lake levels are not solely related to biomass decomposition as Ecology suggests. This is a complex parameter that is influenced by many factors. The broad stroke that Ecology has implied upon oxygen and treatment needs to be reconsidered.

U.S. Environmental Protection Agency

Submit Date: 11/24/2020

See attached comment letter.

Attachment Text:

Dear Ms. Edelman:

This letter transmits the EPA's comments on the proposed Aquatic Plant and Algae Management General Permit, which Ecology made available for public comments from October 21, 2020 through December 7, 2020.

With regard to phosphorus sequestration through the use of aluminum sulfide or sodium aluminate (alum), EPA recommends that Ecology commit to addressing the potential for harmful effects of aluminum on aquatic life. Elevated levels of aluminum can affect some species' ability to regulate ions, like salts, and inhibit respiratory functions, like breathing. Aluminum can accumulate on the surface of a fish's gill, leading to respiratory dysfunction, and possibly death.¹ As Washington does not have numeric criteria for aluminum in freshwaters in the State's water quality standards, EPA recommends that the state use the modeling framework of EPA's 2018 Aquatic Life Criteria for Aluminum in Freshwaters to translate the narrative toxics criteria and ensure that aquatic life is protected from harmful concentrations of aluminum.

Under EPA's 2018 Aquatic Life 304(a) recommended Criteria for Aluminum in Freshwaters, the Agency has concluded that pH, DOC and hardness are three water chemistry constituents that affect aluminum bioavailability and toxicity. EPA recommends that Ecology include monitoring requirements for aluminum (total recoverable), pH, hardness and dissolved organic carbon (DOC), in order to calculate chronic and acute criteria values protective of aquatic life and better characterize the potential effects of alum application. For monitoring frequency, EPA recommends that Ecology require applicators to provide sufficient monitoring data to characterize the acute and chronic risks of aluminum in freshwater aquatic life. It should be noted that aluminum toxicity is not unidirectional with respect to pH and hardness levels. For example, the toxicity of aluminum appears to be lowest at neutral pH (approximately 7), and then increases as ambient pH increases or decreases.¹

Table 1 highlights the recommended aluminum monitoring parameters and sample frequencies.

¹ EPA's 2018 Aquatic Life Ambient Water Quality Criteria for Aluminum in Freshwaters, <https://www.epa.gov/wqc/2018-final-aquatic-life-criteria-aluminum-freshwater>

Table 1: Aluminium Monitoring

Parameter	Sample Frequency
Aluminum (total recoverable)	Before, during, and after alum application
pH	Continuous
Hardness	Before, during, and after alum application
DOC	Before, during, and after alum application*
*The state could provide a conservative estimate for DOC where appropriate if measurement is not possible.	

Thank you for the opportunity to provide comments on this draft permit. For any questions or concerns with EPA’s comments on Ecology’s Draft Aquatic Plant and Algae Management General Permit, feel free to contact Bilin Basu at (206) 553-0029 or basu.bilin@epa.gov.

King County Noxious Weed Program

Submit Date: 12/02/2020

Regarding S4. D. 5. I have a question about the best way to contact those individuals who have a valid water right or claim for irrigation. When I request a water right holder list from Arlene at the Dept. of Ecology it comes as a list of names (with other info about the water right or claim). But those names don't have mailing addresses or email or phone numbers. We notify all the lakefront property owners about pending herbicide treatment and water use restrictions. But there might be people on the water right/claim list that don't match up with the waterfront property owner list. How can we get their contact info, or are they assumed to be one of the waterfront property owners? Maybe water right/claim holder have sold the property or passed away?

The pictograms for the new Treatment Notice Templates are generally a good idea. I think it would be helpful to also include the word that the pictogram is associated with. For example, the one with the sprinkler could also say "irrigation restrictions". Also, there is one of a person carrying a bucket which isn't clear what that is meant to represent. Also, aren't there always water use restrictions with herbicides such as 2,4-D and Triclopyr related to irrigation. I think those templates should have, by default the pictogram representing that on them. How will permit users be able to add or take away pictograms?

Washington Department of Fish and Wildlife

Submit Date: 12/07/2020

S1.A5- "Roadside, ditch bank, and flood control structure plant control."

Comment: There is no definition of a flood control structure in the appendix. Would a string of interconnected ponds designed specifically for flood control, or a dam reservoir be considered a flood control structure?

S3.A2- Permittees must use All Known, Available, and Reasonable methods of pollution control, prevention, and Treatment (AKART) when applying pesticides. Compliance with this permit, the Washington Pesticide Control Act and the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as well as with WDFW Treatment Timing Windows and SOPs (e.g. for alum), label constitute AKART.

Comment: The language is awkward. Change to: "...and Rodenticide Act FIFRA label, as well as with WDFW Treatment Timing Windows and SOPs (e.g. for alum), constitute AKART."

S3.D1,(2,3)- The Permittee must not cause further impairment of any 303(d)-listed waterbody for any listed parameter.

Comment: Striking the word "permanent" changes the meaning to any impairment in relation to 303D waters. Will that wording change result in an inability to treat any waterbodies in the state, because treating an aquatic noxious weed will result in a "temporary" change? Can Ecology cross-check their database to see if there were waterbodies treated in past years that would not be eligible for future treatment with the proposed language.

S3.E- "Identified Wetlands. The Permittee may treat only high use areas to provide for safe recreation (e.g., defined swimming corridors) and boating (e.g., defined navigation channels) in identified and/or emergent wetlands. The Permittee must limit the treated area to protect native wetland vegetation."

Comment: This section seems to contradict S1.A1(c) which allows the treatment of "100 percent of any emergent or floating-leaved noxious weeds and quarantine listed weeds."

S4.D5(a)- "The Permittees must notify individuals who withdraw potable water, or that have a valid water right or claim..."

Comment: The addition of the word "claim" sounds like it could be problematic. I have a foggy memory of being told that a claim doesn't really mean much until it's adjudicated. If that's the case, this may create a lot of extra work.

Table 2- Diquat has Treatment Limitations in the permit of "Do not apply to emergent shoreline vegetation (e.g. cattail, bulrush)."

Comment: The Treatment Limitation should be amended, because the diquat label specifically allows for the treatment emergent vegetation, including cattail. In talking to Ecology, they don't remember why this limitation was put in originally.

WDFW

Submit Date: 12/07/2020

Comments attached.

Attachment Text:

Comments regarding the Aquatic Plant and Algae Management General Permit from Keith Folkerts, WDFW's Conservation Information Delivery Unit Manager.

Thank you for working with us to find ways to effectively and efficiently conserve Washington's fish and wildlife resources through the reissuance of this general permit. We look forward to continuing our discussions so that this process works well for all Permittees, Ecology, and WDFW.

We rely on you for understanding which species are vulnerable to the toxicological impacts of these herbicides and algaecides on groups of species (e.g., fish, amphibians). Our expertise is knowing *where* and *when* vulnerable groups of species are present in waterbodies around the state. This includes both fish species and non-fish animal species. We also have expertise about potential harm to priority species that can be caused by the *act of applying* the herbicide/algaecide (rather than the toxicological effects). For this permit, we narrow our comments to Priority Species as identified through our Priority Habitats and Species program. We are working to deliver our information about *where* and *when* species using easy-to-use online maps that are updated to reflect the best available information.

We appreciate your efforts to work with us to develop processes and workflows to implement the permit's requirements – and we understand that such detail is not part of the permit itself.

The comments we provide below are suggestions that we think clarify the proposed permit's existing requirements, rather than changing those requirements. We use underlining and ~~strikeouts~~ to identify our proposed changes to existing (proposed) language. Page numbers are from the draft permit, non-strikeout version.

Again, thank you for the opportunity to provide comments and we look forward to continuing to work with you to implement this important permit.

Page 4: USFWS has a new link for a map of Oregon Spotted Frog critical habitat:

<https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=D02A#crithab>

Page 13: Please consider proposed clarifications for treatment timing windows:

Permittees **must** consult the WDFW timing windows (including consultation requirements) prior to conducting any treatments, except for treatments specified in items a., b. and c. below. The Permittees must comply with WDFW timing windows and actions specified in WDFW consultations to protect priority species such as salmon, steelhead, and bulltrout. WDFW timing windows and places where consultation is required are located at: <https://wdfw.maps.arcgis.com/apps/MapSeries/index.html?appid=34533b2dd4f84932b5fd1a46e494bde6>.

Timing windows may apply to either fish or non-fish priority species. Table 2 shows which active ingredients trigger timing windows or consultation requirements for fish priority species (chemicals labeled with footnote 2²) in addition to the non-fish priority species identified by WDFW. Pesticide active ingredients listed in Table 2 without footnote 2³, must comply with all non-fish priority species timing windows and consultation requirements. Permittees must refer to the WDFW timing window map for more information about waterbody-specific timing windows and consultation requirements before conducting any treatment (except as specified below).

Some treatment timing windows restrict when treatments may occur, while others allow treatment at any time after consultation with WDFW to identify treatment-specific requirements. Permittees must follow WDFW guidance and treatment limits on waterbodies where the treatment timing window requires consultation.

Where Permittees are directed to consult with WDFW in the timing window map, they must provide Ecology with a consultation letter or email from WDFW indicating the guidance specified by WDFW. If WDFW does not provide treatment-specific guidance, the Permittees must still follow the treatment timing window identified on the map.

Timing windows do not apply to:

- a. Treatments conducted for emergent and shoreline plants.
- b. Treatments conducted for roadside, ditch bank and flood control structure plant control (Special Condition S3.G.9).
- c. Nonnative fish such as bass, walleye, sunfish, perch, carp, or catfish. At their discretion, Permittees may choose to comply with the nonnative fish timing windows noted in the WDFW timing window map.

Page 16-18: Table 2 may be more easily understood if you rename the second column: Subject to Timing Windows or WDFW Consultation for Fish Priority Species? and then simply say “Yes” or “No” in each row. Add another column: Subject to Timing Windows or WDFW Consultation

² If footnote 2 is eliminate, revise this sentence.

³ If footnote 2 is eliminate, revise this sentence.

for Non-Fish Priority Species? and enter “Yes” in each cell. This would eliminate the need for a footnote 2.

If, instead, you keep the table as is, please

- Replace the term “timing table” with “timing window map” in the second column.
- Modify Footnote 2: Timing window restrictions and consultation requirements for priority fish species apply in addition to timing window restrictions and consultation requirements identified for other priority non-fish species, see WDFW timing window map for more information

Page 50:

5. Are any of the fish species using the waterbody and associated tributaries considered a priority species under WDFW Priority Habitats and Species program? (<https://wdfw.wa.gov/publications/00165>)? If present, at what time of year are they in the waterbody?

6. List any priority species (excluding fish) using the waterbody, including bird and amphibian species (common names). See WDFW Priority Habitats and Species Program: <https://wdfw.wa.gov/species-habitats/at-risk/phs>.

Page 51: 7. Are there any priority habitats such as important nesting areas or rookeries associated with the waterbody? If so, attach a map of these areas.

WDFW Priority Habitats and Species: <https://wdfw.wa.gov/species-habitats/at-risk/phs>. See also WDFW species timing windows: <https://wdfw.maps.arcgis.com/apps/MapSeries/index.html?appid=34533b2dd4f84932b5fd1a46e494bde6>.

6. If a priority species or priority habitat is present (identified in section I. WATERBODY INFORMATION of this plan), describe in detail how will its presence be taken into account during planning and treatment to prevent take.

2. If non-target impacts to priority species or priority habitats are detected, describe how your will respond and the specific actions you will take.

Kyle Steelhammer

Submit Date: December 30, 2020

Note: This comment was emailed after the comment period closed.

First, we feel if the resources (money paid by the citizen/customer) and time (contractor sending out notices and communicating with WDFW officials) are put in then why doesn't the timing change stay in effect for the full 5 years the permit is active? There could easily be a

clause that says some permits need to be looked at annually. We already have to deal with this at Spanaway Lake. We discussed this with Nate Lubliner and he mentioned this was all proposed because of legal reasons. The citizens and surrounding residents need to know of the change. We can use the modification process as an example. To modify a permit and make the treatment area bigger then we need to follow the procedures and notify the public but when the treatment area is reduced no such notification is needed. Why can't the timing windows be the same? If we adjust the timing windows to be outside normal bounds, usually July 15th to October 31st, then the notification process is required but it would stay in effect for the 5 years with a potential annual review. If WDFW determines that the window needs to go back to "normal", we wouldn't need to notify then public because it would be reducing the treatment time not extending or expanding anything.

Second, if contractors are required to wait the timeframe for public notification then that could affect treatments that may be delayed by weather, other scheduling, etc. In the past, during the scenarios we have had very good luck discussing our options with WDFW officials and coming to an agreement that works with all parties involved. This new proposal seems to make timing window changes almost impossible when unforeseen issues come into play.

Third, over the past three years we have had very good luck permanently changing timing windows because we do our research and discuss our options with WDFW officials. Some of the timing windows were badly outdated with certain species that haven't resided in areas for over 30 years. We have changed multiple timing windows to benefit our customers. Please let me know how these changes that we have brought forward will be imposed in the new map system. We feel we have already done the leg work to get these changed, we really hope we don't have to do it again to keep them changed.

I appreciate the opportunity to voice my concerns.