Issuance Date: February 18, 2026
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AQUATIC PLANT AND ALGAE MANAGEMENT GENERAL PERMIT

National Pollutant Discharge Elimination System and
State Waste Discharge General Permit

State of Washington
Department of Ecology
Olympia, WA 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington

and

The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

Until this Permit expires, is modified, or revoked, Permittees that have properly obtained coverage under this Permit are authorized to discharge to waters of the State in accordance with the special and general conditions which follow.

Jon Kenning
Water Quality Program Manager
Washington State Department of Ecology

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ADA ACCESSIBILITY

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request ADA Accommodation, contact Water Quality Reception at 360-407-6600. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's accessibility webpage[1] for more information.

For document translation services, call Water Quality Reception at 360-407-6600. Para publicaciones en español, por favor llame a la Recepción de Calidad del Agua al 360-407-6600.

[1] https://ecology.wa.gov/About-us/Accessibility-equity/Accessibility/

SUMMARY OF PERMIT SUBMITTALS

Refer to the Special and General Conditions of this permit for submittal requirements.

Table 1: Required Permit Submittals

Permit Section	Document Type	Frequency	Due Date(s)
S2	Application for New Coverage[1, 2, 6]	As necessary	At least 38 days prior to the start of discharge
S2.B.1.c	Fluridone Vegtation Management Plan[1, 5]	As necessary	At least 30 days before treatment
S2.D	Request for Modification[2, 3, 5]	As necessary	As necessary
S2.E	Request for Transfer of Coverage[2, 3, 5]	As necessary	As necessary
S2.F	Request for Termination of Coverage[2, 3, 5]	As necessary	As necessary
S3.F & S9	Plant Survey and Mitigation Measures[1]	As necessary	At least 30 days before treatment
S4.C	Experimental Phosphorus Control Product Use Plan[3]	As necessary	As necessary
S4.D.4	Request for Modified Timing Window[3]	As necessary, up to once per calendar year	At least 38 days before treatment
S5.A	Ecology Pre-and Post-Treatment Notice[4]	Each week or as necessary during the treatment season	By 8:00 a.m. Monday of the first week of treatment, each treatment season
S5.C	Business and Residential Notice[4] and the list of addresses	As necessary	No later than one business day following B&R notice delivery

Permit Section	Document Type	Frequency	Due Date(s)
S6.A	Dissolved Oxygen Data from 303(d)–Listed Water Bodies for Dissolved Oxygen When Using Contact Herbicides[1]	As necessary	Within 30 days for the post- treatment monitoring date
S6.B	Monitoring Data for phosphorus control[3]	As necessary	Within 60 days for the post- treatment monitoring date
S7.A	Annual Monitoring Report[1, 5]	Annually	December 31
S7.D	Noncompliance Notification[3]	As necessary	Call immediately, email written report within 5 business days
G21	Re-Application for Permit Coverage[1, 2, 6]	Once per permit cycle	At least 180 days prior to the permit expiration date

Signature and submittal footnotes:

1. Submit to Ecology online through the Water Quality Permitting Portal (WQWebPortal)[2].
2. Mail signed hard copy to Ecology.
3. Email to aquaticpesticideperm@ecy.wa.gov.
4. Email to apamprepostttreat@ecy.wa.gov.
5. Electronic or wet ink signatures are accepted.
6. Wet ink signature on a printed copy is required. Mail original to Ecology.

Note: The text of this permit contains some words or phrases in bold. These words or phrases are the first usage in the permit and are defined in Appendix A.

[2] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/water-quality-permits-guidance/wqwebportal-guidance

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

The Aquatic Plant and Algae Management General Permit (APAM permit) regulates the use of **pesticides** and other products applied to manage **aquatic nuisance plants, noxious weeds, quarantine-listed weeds, algae**, and phosphorus in fresh **surface waters of the State of Washington**.

A. Activities Covered Under This Permit

This general permit covers aquatic plant and algae management activities that result in a discharge of **herbicides, algaecides, adjuvants, marker dyes** or **tracer dyes, shading products, biological water clarifiers**, and **phosphorus control products** (referred to hereafter as chemicals) into fresh waterbodies of the state of Washington. The permit also covers shoreline and roadside/ditch bank **emergent vegetation** management activities where chemicals may enter the water.

Aquatic plant and algae management activities are organized into four categories: Aquatic Noxious Weed **Management**, Native Aquatic Nuisance Plant Control, **Algae Control**, and Phosphorus Control.

The permit has different requirements for each category. Aquatic Noxious Weed Management applies to aquatic plant species listed as noxious weeds or quarantine listed plants. Aquatic Nuisance Plant Control applies to all other aquatic plant species, including native and naturalized species.

1. Aquatic Noxious Weed Management

   Littoral zone limitations do not apply to control of noxious weeds or weeds on the quarantine list, but some **treatment** limitations may apply – see (b) below. The **Permittee** may **intentionally apply** herbicides to:

   a. 100 percent of noxious weeds if they are Class A weeds, Class B weeds in areas where they are designated for control, as identified in chapter 16-750 WAC, and Class C weeds where they are selected for control by a county Noxious Weed Control Board (RCW 17.10.080).

   b. 100 percent of any **submersed** noxious or quarantine-list weeds (Chapter 16-752-610 WAC) not covered under (a) above if the Permittee conducts weed control using a **selective herbicide**. If a selective herbicide is not available for the controlled noxious weed, then 100 percent of submersed noxious or quarantine-list weeds may be treated with a non-selective herbicide.

   c. 100 percent of any **emergent** or **floating-leaved** noxious weeds and quarantine listed weeds, regardless of weed region or county designation.

2. Aquatic Nuisance Plant Control

The Permittee may intentionally apply chemicals to control native aquatic plants within the following limits:

a. A percentage of a waterbody's littoral zone based on the littoral acres of the waterbody and the size of the waterbody. Direct herbicide application is limited to a percentage of the littoral zone for control treatments to preserve native plant habitat.

    i. The geographic area where the Permittee intentionally applies chemicals must remain the same for the entire length of the permit coverage up to the maximum percentage of the littoral zone allowed for by waterbody size.

    ii. All untreated littoral areas must include native vegetation from the shore to the edge of the littoral zone (i.e., where the plants stop growing in deeper water).

b. The cumulative percentage of the littoral zone where herbicides are intentionally applied to control native aquatic plants must not exceed the amount allowed below[3]:

    i. In waterbodies up to 15 acres in size, the Permittee may intentionally apply herbicides to no more than 75 percent of the littoral zone.

    ii. In waterbodies over 15 acres and up to 50 acres in size, the Permittee may intentionally apply herbicides to no more than 60 percent of the littoral zone.

    iii. In waterbodies over 50 acres and up to 500 acres in size, the Permittee may intentionally apply herbicides to no more than 50 percent of the littoral zone.

    iv. In waterbodies over 500 acres in size, the Permittee may intentionally apply herbicides to no more than 30 percent of the littoral zone.

c. **Individual lot** aquatic nuisance plant control

    i. For individual treatments targeting **submersed** and **floating-leaved** plants, Permittee may intentionally apply herbicides to no more than 25 feet on either side of a dock or no more than an area 50 feet wide per lot for individual treatments targeting submersed plants and floating-leaved plants. Treatment of the vegetated area may extend up to 25 feet beyond the end of the dock. On individual lots with no docks, treatment of the vegetated area **submersed** and **floating-leaved** plants can extend up to 50 feet from the shore.

    ii. For individual treatments targeting **emergent** plants, Permittee may intentionally apply herbicides to no more than 40 percent of emergent shoreline plants on individual lots for individual treatments.

[3] Different littoral zone limitations apply to the herbicide fluridone. See Treatment Limitations in Table 2.

3. Roadside, ditch bank, and flood control structure plant control

    a. For activities conducted by state and local agencies, the Permittee may intentionally apply herbicides to 100 percent of the plants within the right-of-way and on levees and dikes.

    b. The Permittee may intentionally apply herbicides to no more than 40 percent of native vegetation of roadsides and ditches on privately owned individual lots, but may intentionally apply herbicide to 100 percent of any noxious or quarantine-listed weeds.

4. Algae Control

    a. The Permittee may intentionally apply algaecides to filamentous green algae provided the treated areas do not exceed the maximum amount of littoral zone allowed for treatment in Special Condition S1.A.2 and for green algae treatments on individual lots are limited to the areas described in S1.A.2.c.

    b. When **cyanobacteria** or other potentially toxic or environmentally harmful algae species are present in the waterbody the Permittee may intentionally apply algaecides to 100 percent of the waterbody or sections of the waterbody, as needed.

5. Phosphorus Control

    The Permittee may intentionally apply the phosphorus control products and buffering agents listed in Table 3: Application of Products for Phosphorus Control to the entire waterbody or sections of the waterbody in accordance with permit sections S4.D and S6.B. Limited use of other phosphorus control products is allowed under permit section S4.C.2.

B. Geographic Area Covered

This permit covers the activities listed in S1.A within the State of Washington. This permit does not apply to:

1. Activities conducted by any department, agency, or instrumentality of the Federal Government of the United States, or another entity, such as a private contractor, performing aquatic plant and algae control activities on behalf of the Federal Government. (For more information, see section 5.1 of the Fact Sheet for this permit.)

2. Indian Country and trust or restricted lands except portions of the Puyallup Reservation, as noted below.

3. Puyallup Exception: Following the *Puyallup Tribe of Indians Land Claims Settlement Act of 1989*, 25 U.S.C. §1773; this permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

C. Activities Excluded from Coverage Under This Permit

Ecology will not require coverage under this permit for the use of pesticides and other products on the following sites; with the exception of locations identified as critical habitat for Oregon spotted frogs as defined by the U.S. Fish and Wildlife Services (https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=D02A#crithab):

1. Constructed **detention or retention ponds** designed specifically for wastewater or stormwater treatment that do not discharge to other waterbodies during and for two weeks after treatment, or where Ecology regulates the discharge under another permit that allows chemical treatment.
2. Any **constructed waterbody** five acres or less in surface area with no discharge to other surface waters of the State during and for two weeks after treatment.
3. Any constructed waterbody ten acres or less in surface area under single ownership with no **public access** and no discharge to other surface waters of the State during and for two weeks after treatment.
4. **Farm ponds** with no discharge to other surface waters of the State during and for two weeks after treatment.
5. Treatment conducted on **seasonally dry land surfaces** (including seasonally dry **wetlands**) so long as the treatment occurs when the area is dry and the active ingredient is not biologically available when the water returns.
6. Research activities when applying chemicals or products to waterbodies under a **State Experimental Use Permit** (See S4.C).
7. Any **constructed waterbody** built for a single recreational purpose (e.g. waterski lakes) which have no other beneficial use **and** no public access.
8. Forest practices conducted in full compliance with the applicable provisions of RCW 76.09.010 through 76.09.280, forest practices rules, and any approvals or directives of the Department of Natural Resources thereunder.

Note: Facilities operating without coverage under this General Permit (for example, those exempt according to the conditions in S1.C), must still meet the discharge standards in WAC 173 221A, including numeric discharge limits and solid waste management, and must not violate the state water quality and ground water standards (Chapters 173-200 and 201A).

S2. APPLICATION FOR COVERAGE

Ecology may modify this permit to require electronic submittal of the Permit Application, Annual Report, Monitoring Report, Transfer of Coverage, or Notice of Termination when an electronic reporting system becomes available.

A. Who May Obtain Permit Coverage

1. **Licensed pesticide applicators (applicators)** (WAC 16-228-1545) may apply for coverage. Applicators must be licensed in Washington State with an aquatic endorsement (WAC16-228-1545 3(t)).

    a. Except as noted below, applicators must obtain separate permit coverage for each waterbody they plan to treat. Each coverage requires a **sponsor** who has jurisdiction over the waterbody, or section(s) of the waterbody treated. Applicators may obtain a single permit coverage for multiple waterbodies where a single, non-governmental sponsor has authority to treat more than one waterbody. The waterbodies need not be hydraulically connected, but must be part of the same distinct community (e.g., ABC Homeowners Association).

    b. In waterbodies with multiple sponsors, Ecology may require that permittees obtain separate permit coverages for each location within the waterbody (e.g., Lake Washington).

2. For discharge of phosphorus control chemicals, either the entity applying the product or a local government may apply for permit coverage. Unless they are a local government entity, **applicants** must have a sponsor for each phosphorus control coverage. Applicants are not required to have a pesticide applicator license to apply phosphorus control chemicals, because these products are not registered as pesticides and EPA and WSDA do not regulate their use.

3. Any state or local government entity may apply for coverage.

    a. A government entity may get permit coverage themselves, or act as a sponsor for a licensed pesticide applicator or entity applying phosphorus control.

    b. A government entity may include multiple waterbodies within its jurisdiction under a single permit coverage.

    c. Government entities acting as a permittee must provide Ecology with an updated list of its current licensed applicators conducting treatments under their permit coverage, including their license numbers and license expiration dates.

B. How to Apply for Permit Coverage

The entity seeking coverage under this Permit, or the Permittee renewing permit coverage, must do the following:

1. Submit to Ecology a complete application for coverage. A complete application for coverage includes:

a. A complete and signed Notice of Intent (NOI). Use the link on the Aquatic Plant and Algae Management Permit[4] webpage.

   i. A Responsible Person, in accordance with General Condition G1 (Signatory Requirements), must sign the signature page of the application.

   ii. Unless the application is being completed by a government entity, the sponsor(s) must also sign the document.

b. A map of the permit coverage area showing where pesticides or other products may be applied.

c. If the applicant intends to use products containing fluridone in an area exceeding the limits listed below, they must also submit a signed and dated Fluridone Vegetation Management Plan (Appendix C) to Ecology when applying for permit coverage, or if updating permit coverage provide the plan at least 30 days before treatment.

   i. 50 percent of the littoral zone in lakes up to 50 acres, or

   ii. 40 percent of the littoral zone in lakes from 50 - 500 acres.

2. If the product label has potable water use restrictions and a functioning **public water system** intake is located within the applicable setback distances from the treatment area(s), the applicant must obtain written consent for the treatment from the public water system purveyor and submit a copy to Ecology prior to treatment. Setback distances on the product label should be evaluated and reviewed by the applicator and **purveyor** to determine potential impact based on application areas and intake location.

3. Submit the Notice of Intent (NOI) permit application, map, and if necessary the fluridone plan and public water system consent, to Ecology using the Water Quality Permitting Portal (WQWebPortal)[5].

   To access the WQWebPortal, either register for Secure Access Washington (SAW)[6], or if you already have a SAW account log-in using your credentials and password.

4. Print, sign, and mail the Certification and Signature page(s) of the NOI application to:

   Department of Ecology Water Quality Program
   Attn: Aquatic Pesticide Permit Manager
   P.O. Box 47696
   Olympia, WA 98504-7696

[4] https://ecology.wa.gov/regulations-permits/permits-certifications/aquatic-pesticide-permits/aquatic-plant-algae-management
[5] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/water-quality-permits-guidance/wqwebportal-guidance
[6] https://secureaccess.wa.gov/public/saw/pub/displayRegister.do

5. After the applicant has submitted the completed NOI to Ecology, they must fill out the Public Notice Template provided in the NOI. Publish the public notice twice, one week apart, in a local newspaper of general circulation (or a regional newspaper if a local newspaper is not available) that an application for permit coverage has been made. At the time the second notice is published, a 30-day comment period begins. (WAC 173-226-130)

6. Mail or deliver the public notice to all potentially affected waterfront residents (those within one-quarter mile in each direction along the shoreline or across the water from proposed treatment areas) within one week of publishing the first newspaper notice.

7. Mail or deliver the public notice to the Washington State Department of Natural Resources (DNR) at dnrreais@dnr.wa.gov.

8. Mail or deliver the public notice for permit coverages in Water Resource Inventory Areas 7 (Snohomish), 8 (Cedar/Sammamish), and 9 (Duwamish/Green) (https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed- look-up) to talise.rey@muckleshoot.nsn.us. If the email contact becomes out-of-date, Ecology will provide updated contact information.

   At the end of the required 30-day public comment period, Ecology will consider comments about the applicability of this permit to the proposed aquatic plant or algae management activity before issuing a decision on permit coverage.

C. Permit Coverage Timeline

1. If the applicant does not receive notification from Ecology, permit coverage automatically commences on whichever of the following dates occurs last:

   a. The 31st day following receipt by Ecology of a completed application for coverage.

   b. The 31st day following the end of a 30-day public comment period.

   c. The effective date of the general permit.

2. Ecology may need additional time to review the application:

   a. If the application is incomplete.

   b. If it requires additional site-specific information.

   c. If the public requests a public hearing.

   d. If members of the public file comments.

   e. When more information is necessary to determine whether coverage under the general permit is appropriate.

3. When Ecology needs additional time:

    a. Ecology will notify the applicant in writing before the 31st day following the end of the 30-day public comment period and identify the issues that the applicant must resolve before a decision is reached.

    b. Ecology will submit the final decision to the applicant in writing. If Ecology approves the application for coverage, coverage begins the 31st day following approval, or the date the approval letter is issued, whichever is later.

D. How to Modify Permit Coverage

Entities that propose changes to the aquatic plant and algae control activities authorized by their original permit coverage, such as expanding the area covered, must complete and submit a Permit Modification Form[7] which is available on the APAM permit web page. Treatment timing window modifications may trigger permit coverage modifications. See the Permit Modification Form for required public notice language, and Special Condition S4.D.4 for more information on the treatment timing window modification process.

E. How to Transfer Permit Coverage

A Permittee may transfer coverage to a new Permittee, in accordance with General Condition G7 of this permit, using the Transfer of Coverage Form[8].

Both the original Permittee and the new Permittee must sign the form and provide the date that the new Permittee will take responsibility for permit coverage. Once both parties have signed the form, the new Permittee becomes responsible for permit compliance and permit fees on the date indicated on the form. The original Permittee remains responsible for, and subject to, all permit conditions and permit fees until the transfer is effective.

F. How to Terminate Permit Coverage

When a Permittee no longer has or plans to discharge they may request termination of permit coverage by submitting a completed Notice of Termination (NOT) form[9].

The Permittee will continue to incur an annual permit fee unless it submits a NOT form even if no application of pesticides takes place. Once permit coverage is terminated, the Permittee may no longer discharge to **waters of the state** unless it applies for, and gains coverage under this permit again.

[7] https://apps.ecology.wa.gov/publications/SummaryPages/ecy070788.html
[8] https://apps.ecology.wa.gov/publications/SummaryPages/ECY070348.html
[9] https://apps.ecology.wa.gov/publications/SummaryPages/ECY100300.html

S3. DISCHARGE LIMITS

Discharges not in compliance with the requirements below are prohibited.

A. Compliance with Standards

1. When applying pesticides referred to in Special Condition S4.B (Authorized Discharges), the Permittee must use all known, available, and reasonable methods of prevention, control, and treatment (AKART). Compliance with the following constitutes AKART:

    a. This permit.

    b. The Washington Pesticide Control Act and rules adopted thereunder (RCW 15.58).

    c. The Washington Pesticide Application Act and rules adopted thereunder (RCW 17.21).

    d. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). (7 U.S.C. §136 et seq.)

    e. The pesticide, adjuvant, marker or tracer dye, and other product labels (referred to collectively as Product Labels in this permit) currently registered and approved for use in Washington State.

    f. WDFW Treatment Timing Windows.

2. Nothing in this Permit excuses the Permittee from compliance with any applicable federal, state, or local statute, ordinance, or regulation. Examples of statutes and regulations that are possibly relevant include the following:

    a. State Environmental Policy Act (SEPA), and WAC 173-226-200.

    b. The Endangered Species Act of 1973, as amended (16 U.S.C. §1531 et seq.)

    c. If drones are used in the application of pesticides, the requirements of 14 CFR Part 137 apply. This section governs the use of aircraft, including drones, to dispense or spray substances used for pest control.

B. Temporary Exceedance of Water Quality Standards

Pesticide applications and other treatments conducted under this permit are allowed to cause temporary nonattainment of water quality standards, provided the Permittee complies with the provisions of WAC 173-201A-410. Permittees must condition, time, and restrict activities in a manner that will minimize degradation of numeric and narrative water quality standards, existing uses, and designated uses.

Activities covered under this permit are allocated a temporary zone of impact, but the impact must be transient (hours or days, not weeks or months) and must allow for full restoration of water quality and protection of existing and designated uses upon project

completion. The conditions of this permit constitute the requirements of a short-term water quality modification (WAC 173-201A-410).

C. Application Requirements

The Permittee must comply with the Product Label when using pesticides. Permit requirements do not reduce the requirements on the Product Label. The Permittee must ensure that:

1. A licensed pesticide applicator, with the appropriate Washington State Department of Agriculture (WSDA) license and certification, has **direct supervision responsibilities** for the use of pesticides during application. See WAC 16-228-1548 for additional training and recordkeeping requirements related to supervision of a noncertified (unlicensed) applicator.
2. All applicators (either under the direct supervision of the licensed applicator for pesticides or under the supervision of the discharger for non-pesticides) have current training in the use of the equipment necessary to apply chemicals correctly and that they use approved application techniques.
3. Appropriately trained personnel calibrate the application equipment for the chemical used.
4. Phosphorus control products are not labeled as pesticides by FIFRA and dischargers are not required to have pesticide applicator licenses.

D. Impaired Water Bodies

1. The Permittee must not cause further impairment of any 303(d)-listed waterbody[10] for any listed parameter.
2. The Permittee must prevent further impairment of waterbodies listed on the 303(d) list (i.e., Water Quality Assessment - Category 5) for dissolved oxygen as a result of treatment, which may include implementing one or more of the following mitigation measures:
    a. Using appropriate chemicals such as a **systemic herbicide** instead of a **contact herbicide**.
    b. Not treating in the summer or when water temperatures are warm enough to contribute to low dissolved oxygen concentrations after treatment.
    c. Limiting the area treated each time that treatment occurs.
    d. Removing decaying plants following treatment.
    e. Aerating the water following treatments.

[10] https://ecology.wa.gov/water-shorelines/water-quality/water-improvement/assessment-303d-list

3. The Permittee must prevent further impairment due to the treatment of waterbodies listed on the 303(d) list (i.e., Water Quality Assessment - Category 5) for phosphorus. They may do so by choosing appropriate chemicals to minimize the release of phosphorus from non-target plants or algae and must implement at least one or more of the following mitigation measures.

    a. When treating for a free-**floating plant**, such as duckweed or algae blooms, ensuring that a healthy population of native emergent, submersed, or floating-leaved plants remains in the waterbody after treatment.

    b. Timing the treatment so that plant nutrients are not released during summer months.

    c. Limiting the area treated at any one time.

    d. Removing decaying plants following treatment.

    e. Treatment with phosphorus control products following control of plants or algae.

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.

F. Additional Requirements for Discharges to Water Bodies Where Sensitive, Threatened, or Endangered Plants Are Present

Before issuing permit coverage, Ecology will determine whether **sensitive, threatened, or endangered (rare) plants** are present in the proposed treatment area. If present, for **aquatic plant control** projects, the Permittee must submit a detailed plant survey and implement mitigation measures according to Special Condition S9.

S4. THE APPLICATION OF PRODUCTS

A. Prohibited Discharges

Treatment that causes oxygen depletion in the waterbody to the point of stress or lethality to aquatic biota from plant or algae die-off, the mortality of aquatic vertebrates, or unintended impacts to water quality or biota are prohibited. See Special Conditions S4.D.6 and S6.A for additional information on preventing depleted oxygen levels during algae treatments.

B. Authorized Discharges

1. Beginning on the effective date of this permit and until Ecology modifies, reissues, or revokes this permit; this permit authorizes the Permittee to discharge the chemicals listed in the permit into freshwaters of the State.

This permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any trespass, injury to **private property** or any invasion of personal rights.

2. The Permittee may only apply approved adjuvants, herbicide and algaecide products containing the active ingredients listed in Table 2 that are labeled for aquatic use, phosphorus control products listed in Table 3, shading products and water clarification products (including bacterial products) listed in Table 4.

3. Only apply an adjuvant to aquatic environments if the product is approved for aquatic use in Washington by WSDA. A list of approved adjuvants is provided on the APAM permit web page. Contact WSDA Registration Services at pestreg@agr.wa.gov or (360) 902-2030 to ensure any adjuvants intended for use are registered in Washington and approved for aquatic use sites.

4. Algae treatments are subject to additional requirements to prevent dissolved oxygen depletion. See Special Condition S4.D.6 for more information.

5. The Permittee must comply with the specific restrictions/limitations listed in Tables 2, 3, and 4.

C. Experimental Use

1. Pesticides

    a. The Permittees may discharge chemicals not listed in this permit on a limited basis in the context of research and development through the issuance of Federal (40 CFR 172) and State **Experimental Use Permits (EUP)**.

    b. Applicators and decision makers must obtain coverage under this permit for any in- water projects conducted under a Federal EUP (projects over one acre or more in size), unless the project is conducted at a site excluded from coverage under this permit (Special Condition S1.C).

    c. Ecology does not require coverage under this permit for research and development projects under Federal and State EUP of one acre or less in size where the applicator and decision maker operates under a State EUP (Special Condition S1.C.6).

2. Phosphorus Control Products

    a. The Permittees may discharge phosphorus control products (PCP) not listed in this permit on a limited basis in the context of a research and development effort provided the Permittees develop an Experimental Phosphorus Control Product Use Plan (EPCPP) that is available for public comment and approved by Ecology. Components of PCP may not be registered pesticides or adjuvants if use as part of a PCP does not comply with product label requirements.

b. No algaecide treatment 14 days prior to use of experimental PCP unless treatment is necessary for experimental PCP to work and reasons are detailed in the EPCPP.

c. Experimental Phosphorus Control Product Use Plan

i. Existing EPCPP Updates

Experimental use plans submitted under previous versions of this general permit must update their plans and submit them to Ecology within 60 days of the effective date of this permit to include the new requirements in this permit. Plans not updated and submitted to Ecology within 60 days are no longer valid and the experimental use must stop until the Permittees submit a new plan to Ecology for approval.

ii. Plan Development

Permittee **must** use the experimental use plan template provided in this permit. See Appendix D for the experimental use plan template.

iii. Plan Submittal

The applicants must submit the draft EPCPP to Ecology for review prior to the second public notice publication date. Applicants must submit the draft EPCPP by email to aquaticpesticideperm@ecy.wa.gov or mail to:

Department of Ecology
Water Quality Program
Attn: Aquatic Pesticide Permit Manager
P.O. Box 47696
Olympia, WA 98504-7696

iv. Plan Public Notice and Comment

The applicants for an EPCPP must publish public notice once each week for two consecutive weeks, at least one week apart, in a single newspaper that has general circulation in the county in which the proposed project is to take place. Ecology will not issue an approval for an EPCPP until at least 31 days after the date of the second public notice.

v. Publish Public Notice

The applicants for a EPCPP must use this public notice template to publish public notice. Complete the template with the required information.

vi. Plan Approval

Ecology will review the EPCPP and any public comments we receive when considering whether to approve the EPCPP.

If public comments require that the applicants make changes to the draft EPCPP, Ecology will notify the applicants of the required changes. Ecology will not make an approval decision until the changes are made and an updated EPCPP submitted to Ecology. Ecology will use changes to the updated plan to respond to public comments on the draft EPCPP.

If changes from the public comment version of the draft EPCPP are significant, Ecology may require additional public notice and comment on the draft EPCPP.

Ecology will respond to any public comments we receive prior to making the decision and capture those comments and our responses in a response to comments document. Ecology will provide all commenters who include their contact information with the final decision on the EPCPP, and the response to comments document.

Public Notice Template – For Experimental Use Products

Complete this template using project-specific information and submit to a local newspaper with general circulation within the county where the project is located.

- **Bold** language is required and must be included in its entirety as written in the template.
- *Italics* language indicates where the applicant/Permittee must provide information.

Applicant name and contact information (e.g., address, phone number, email address) **is seeking coverage under the Washington State Department of Ecology Aquatic Plant and Algae Management General Permit jointly with** (*Decision Maker name(s) and contact information (e.g., address, phone number, email address*).

We are seeking coverage because we decided to use chemical methods to manage aquatic plants, algae, or to perform phosphorus control, and a permit from Ecology is required for this discharge. Our proposed project, where we plan to treat with chemicals as conditionally authorized by the general permit, includes the following geographical area: *Describe proposed coverage area. For example waterbody names if entire waterbodies are covered, lat/long of treatment area corners if a portion of a waterbody are to be included in permit coverage*.

If the applicants are proposing an experimental use product, include the following:
We are also seeking approval for an experimental use product *product or chemical name* **for the purpose of a research and development project targeting** *select one or more: aquatic plant management/algae management/phosphorus control.*

If a government entity has made their own SEPA determination, do not include the following sentence in the public notice:
Ecology has made a SEPA determination of significance with the adoption of an existing environmental document for this proposal.

Any person desiring to present their views to the Department of Ecology regarding this application may do so in writing within 30 days of the last date of publication of this notice. Public notice will be published on *DATE* **and** *DATE***. Comments must be submitted to the Department of Ecology to be considered. Any person interested in the department's action on this application may notify the department of their interest within 30 days of the last date of publication of this notice.**

Comments on our proposal may be emailed to aquaticpesticideperm@ecy.wa.gov or mailed to: Department of Ecology, Water Quality Program, Attn: Aquatic Pesticide Permit Manager, P.O. Box 47696, Olympia, WA 98504-7696

D. General Application Restrictions

1. Treatments with pesticides that have water use restrictions on the Product Label shall be made so as to avoid public water use restrictions during the opening week of fishing season or during tribal fisheries, WDFW Free Fishing Weekend, Memorial Day weekend, Independence Day weekend, and Labor Day weekend. (WAC 173-201A-410(4)(c))

2. Permittees must minimize treatments that restrict public water use during weekends.

3. Permittees must comply with Treatment Timing Windows, or a Treatment Timing Window modification approved by Ecology.

   Permittees must consult the WDFW timing windows prior to conducting any treatments. The Permittees must comply with WDFW timing windows or modifications approved by Ecology to protect sensitive, threatened, or endangered species, and priority habitats and species such as salmon, steelhead, and bulltrout. WDFW timing window are located at: https://wdfw.maps.arcgis.com/apps/MapSeries/index.html?appid=34533b2dd4f84932b5f d1a46e494bde6. The process to request a modification is described in S4.D.4.

   Timing windows may apply to either fish or non-fish species. Table 2 shows which active ingredients trigger timing windows for fish species (chemicals labeled with footnote 2) in addition to other priority species identified by WDFW. Pesticide active ingredients listed in Table 2 without footnote 2, must comply with all non-fish species timing windows.

   Permittees must refer to the WDFW timing window map for more information about waterbody-specific timing windows before conducting any treatments.

   Some treatment timing windows require consultation with WDFW prior to beginning any treatment. 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, the Permittee must provide Ecology with a consultation letter or email from WDFW indicating the additional guidance and revised treatment limits approved by WDFW. If WDFW does not provide additional guidance or treatment limits, the Permittees must still follow the treatment timing window.

   Timing windows to not apply to the use of pesticides and other products on the following sites; with the exception of locations identified as critical habitat for species of concern as identified by WDFW on their timing window map. For example, breeding waterfowl, Oregon spotted frog, or Olympic mudminnow.

   a. Treatments conducted for emergent and shoreline plants.

   b. Treatments conducted for plant control on roadsides, ditch banks, and in flood control structures.

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 provided by WDFW.

4. Modified Timing Window Requests

Permittees may request a waterbody-specific modified treatment timing window for no longer than one calendar year or treatment season. Ecology will consult with WDFW regarding the waterbody-specific modified treatment timing window request.

Modification requests must be emailed to Ecology at aquaticpesticideperm@ecy.wa.gov. Ecology may approve, conditionally approve, or deny modification requests.

When requesting a modified treatment timing window, Permittees must provide a justification for why they need a modification from the established treatment timing window and provide any information they have that supports the Permittee's request with their application.

There are two ways to request a modified treatment timing window:

a. A request to modify the existing treatment timing window may be included when applying for permit coverage. If WDFW recommends the approval of a modified timing window, applicants should follow the procedures in S2.B regarding public notice and comment periods. In addition to the requirements listed in S2.B.5, Permittees must include the proposed modified timing window in the public notice. If Ecology and WDFW do not find cause from public comments to revoke approval for the modified treatment timing window, the Permittee may proceed under the modified timing window after the public comment period is complete and formal Ecology approval has been received.

b. Current Permittees may request a modified treatment timing window at any time by emailing Ecology at aquaticpesticideperm@ecy.wa.gov. After WDFW recommends approval for a modified timing window, Permittees must begin the public notice and comment period by completing the public notice template provided in the Permit Modification Form[11]. Publish the public notice twice, one week apart, in a local newspaper of general circulation (or a regional newspaper if a local newspaper is not available). At the time the second notice is published, a 30-day comment period begins. (WAC 173-226-130(5). If Ecology and WDFW do not find cause from public comments to revoke approval for the modified treatment timing window, the Permittee may proceed under the modified timing window after the public comment period is complete.

[11] https://apps.ecology.wa.gov/publications/SummaryPages/ecy070788.html

c. Treatment timing window modifications may trigger permit coverage modifications. Ecology will notify the permittee if a modification of permit coverage is required.

5. Providing Replacement Water

   Permittees are required to provide, as detailed below, an alternative or replacement water source when treatment will affect non-public intakes, including those used for domestic water, irrigation water, or livestock watering uses.

   a. The Permittees must notify individuals who withdraw non-public domestic drinking water, or that have a valid water right or claim for irrigation water or livestock watering prior to treatment with any chemical that restricts the use of the water for these purposes.

   b. Notification is required to all those with a valid water claim or right in the treatment area, as well as in any applicable setback distances on the product label from the edge of the treatment area whose water use may be affected by the pending treatment.

      i. Initial notification must occur prior to any chemical treatment occurring during the year, and must occur each year treatment takes place.

      ii. The Residential and Business Notice (Special Condition S5.C) may serve as the initial notice to those withdrawing potable water, or withdrawing water under a legal water right or claim for irrigation or livestock watering.

   c. If requested by an affected water user, the Permittees must provide at least two weeks advance notice of pending treatments with potable water, irrigation water, or livestock watering restrictions.

   d. If requested by an affected water user(s), the Permittees, at their own expense, must provide a replacement/alternative water supply until the water at the point of withdrawal tests at or below the concentration specified for the active ingredient(s) on the product label for the restricted water use. The replacement/alternative water supply must allow the requestor to use water as they are accustomed to (e.g. run their kitchen faucet and obtain potable water), however the requestor may agree to lesser water provision (e.g. bottled water for a vacation house) if they choose.

      i. Permittees are responsible for reaching an agreement with the requestor (affected water user) to determine how the replacement/alternative water supply is provided.

6. Algae Treatment Restrictions

   a. If a Permittee must conduct a full-waterbody pesticide (or algaecide) treatment for algae:

i. Collect dissolved oxygen measurements at the same time of day as the planned treatment, at locations within the planned treatment area(s) and representative of the water column: in a mixed water column collect 1 sample at mid depth, or if the water column is thermally stratified collect 1 sample in the middle of the epilimnion layer and 1 in the middle of the hypolimnion layer. Permittees must take at minimum one dissolved oxygen measurement approximately 24 hours prior to the planned algae treatment. Multiple measurements may be taken to determine an average dissolved oxygen level for the waterbody.

ii. Permittees must measure dissolved oxygen after the algaecide treatment is complete and the aftereffects of the treatment are occurring. The post-treatment dissolved oxygen level must not be lower than 0.2 mg/L below the mandatory single pre-treatment measurement or the average of multiple pre-treatment measurements.

b. If water quality or algae conditions are such that a Permittee believes a full-waterbody treatment may cause a lethal drop in dissolved oxygen, or the Permittee is unable to conduct pre-treatment dissolved oxygen monitoring, the Permittee may use the following alternative treatment methods:

i. The Permittee may use only phosphorus control products in the algae treatment.

ii. The Permittee may treat up to one-third of the lake each week with algaecide.

7. Phosphorus Control Restrictions

a. Phosphorus control treatments are limited to the application dose needed based on the mass of phosphorus to be controlled. See S6.B.1 for a description of pre-treatment dose assessments.

b. Phosphorus control treatments must be timed to minimize interference from aquatic plant biomass with inactivation of sediment phosphorus. This may require early spring or fall treatments.

Table 2: Restrictions on the Application of Herbicides and Algaecides

Active Ingredient[1]	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
2, 4 – D (amine)[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority 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.	Consult product label for water use restrictions
2, 4 – D (ester)[2]	See other specific restrictions – Yes for salmon, steelhead, bull trout – check timing window map for other priority species	Swimming restriction during treatment, and for 24-hours post- treatment (in the treated area)	None	Do not use in salmon-bearing waters.
Aminopyralid	No for fish - check timing window map for other priority species.	48-hour re-entry restriction post-treatment (in the treated area)	• Do not apply directly to water, or in habitats where native vegetation restoration is desired (e.g., mitigation sites, riparian areas, and natural corridors). • Minimize overspray along the shoreline when applying to terrestrial plants at the water's edge	If soil or dead plants in treated areas are being removed, consult the product label to determine appropriate soil and plant disposal methods.

Active Ingredient[1]	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Bispyribac-sodium	No for fish - check timing window map for other priority species.	None	None	None
Carfentrazone-ethyl[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority species	None	None	None
Diquat[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority species	Swimming advisory during treatment, and for 24-hours post- treatment (in the treated area)	• Do not pour Diquat directly from the container into the waterbody. • Do not apply to emergent shoreline vegetation (e.g., cattails, bulrush)	Consult product label for water use restrictions.
Endothall (dipotassium salt)[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority species	Swimming advisory during treatment, and for 24-hours post- treatment (in the treated area)	Do not apply within 400 ft of an outlet stream if there is an outflow.	Consult product label for water use restrictions.

Table 2 cont. Note: These restrictions may be in addition to the product label requirements (when applicable).

Active Ingredient[1]	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Endothall (mono salt)[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority species	Swimming advisory during and for 24-hours after treatment (in the treated area)	• Use for control of filamentous algae, cyanobacteria, or harmful algae only. See S1.A.2(b) • Limit concentrations to 0.2-mg/L of active ingredient	• Treatment must occur from the shoreline outward into the waterbody. • Consult product label for water use restrictions.
Florpyrauxifen-benzyl	No for fish - check timing window map for other priority species.	None	None	None
Flumioxazin[2]	Yes for salmon, steelhead, bull trout – check timing window map for other priority species	None	None	None
Fluridone	No for fish - check timing window map for other priority species.	None	Unless operating under a Fluridone Vegetation Management Plan (Appendix C), Ecology further limits fluridone application to no more than 50 percent of the littoral zone in lakes up to 50 acres and no more than 40 percent of the littoral zone in lakes from 50 – 500 acres.	None

Table 2 cont.

Active Ingredient[1]	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Glyphosate	No for fish - check timing window map for other priority species.	None	None	None
Imazapyr	No for fish - check timing window map for other priority species.	None	None	None
Imazamox	No for fish - check timing window map for other priority species.	None	None	None
Penoxsulam	No for fish - check timing window map for other priority species.	None	None	None
Peroxyacetic / Peracetic Acid plus Hydrogen Peroxide	No for fish - check timing window map for other priority species.	None	Do not treat plants growing on the shore	None
Sodium carbonate peroxyhydrate	No for fish - check timing window map for other priority species.	None	Do not treat plants growing on the shore	None
Topramezone	No for fish - check timing window map for other priority species.	None	None	None

Table 2 cont. Note: These restrictions may be in addition to the product label requirements (when applicable).

Active Ingredient[1]	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Triclopyr choline salt	No for fish - check timing window map for other priority species.	No restrictions on recreational uses, including swimming and fishing. No restrictions on livestock consumption Consult product label for irrigation restrictions.	To minimize the risk to fish due to oxygen depletion, do not treat more than one-third to one-half of a waterbody area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Do not apply to salt water bays or estuaries. Do not apply directly to un-impounded rivers or streams.	Consult product label for setbacks from functioning potable water intakes.
Triclopyr TEA	No for fish - check timing window map for other priority species.	Swimming advisory during treatment, and for 12-hours post- treatment (in the treated area)	Aerial applications are not allowed	Consult product label for water use restrictions.

Table 2 cont. Note: These restrictions may be in addition to the product label requirements (when applicable).

1 = The full chemical name for each active ingredient is included in Appendix A – Definitions.
2 = Timing window restrictions for priority fish species apply in addition to timing windows identified for other priority non-fish species, see WDFW timing window map for more information
https://wdfw.maps.arcgis.com/apps/MapSeries/index.html?appid=34533b2dd4f84932b5fd1a46e494bde6

Table 3: Restrictions on the Application of Products for Phosphorus Control

Phosphorus Control Products	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Alum (Aluminum sulfate and Sodium Aluminate)	• No for fish - check timing window map for other priority species.	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. • Conduct pH monitoring as described in S6.B.3.d. The pH of lake water during treatment must remain between 6.0 and 8.5 based on lake average. A pH above 8.5 is associated with higher dissolved aluminum. • Only aluminum compounds suitable for surface water treatment may be used. • Buffering materials must be available for use.	• Conduct a pre-treatment dose assessment as described in S6.B.1. • A daily test must be completed prior to application. See S6.B.3.a for more information. • 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.
Calcium Products (Calcium Hydroxide/Oxide and Calcium Carbonate)	No for fish - check timing window map for other priority species.	None	Conduct pH monitoring as described in S6.B.6.c. The pH must remain between 6.0 and 9.0.	• Conduct a pre-treatment dose assessment as described in S6.B.1. This test needs to be conducted at least over a 24-hour period to ensure that the pH response is at equilibrium with water chemistry. • Follow the monitoring requirements in S6.B.

Phosphorus Control Products	Subject to Treatment Timing Windows?	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Iron Coated Lanthanum	No for fish - check timing window map for other priority species.	None	Treatments using products containing lanthanum must be carefully controlled according to label specifications to generate environmental concentrations that are effective in phosphorus inactivation, but not high enough to allow or cause ecotoxicity.	• Conduct a pre-treatment dose assessment as described in S6.B.1. • Follow the monitoring requirements in S6.B.
Lanthanum- Modified Bentonite Clay	No for fish - check timing window map for other priority species.	None	Treatments using products containing lanthanum must be carefully controlled according to label specifications to generate environmental concentrations that are effective in phosphorus inactivation, but not high enough to allow or cause ecotoxicity.	• Conduct a pre-treatment dose assessment as described in S6.B.1. • Follow the monitoring requirements in S6.B.
Powdered or Granulated Iron	No for fish - check timing table for other priority species.	None	• Iron products may be less effective where dissolved oxygen concentrations in the water column are anoxic (<1 mg/L). This includes when low oxygen conditions are created by applications of herbicides and algaecides.	• Conduct a pre-treatment dose assessment as described in S6.B.1. • Follow the monitoring requirements in S6.B.

Table 3 cont. Note: These restrictions may be in addition to the product label requirements (when applicable).

Table 4: Restrictions on the Application of Shading Products and Biological Water Clarifiers

Product	Restrictions
Shading products	Do not apply directly to flowing water, rivers, streams or any lake that discharges to other surface waters of the State.
Biological Water Clarifiers	Use only in waterbodies with no discharge to other surface waters of the State during and for two weeks after treatment.

Note: These restrictions may be in addition to the product label requirements (when applicable).

S5. NOTIFICATION, INSPECTION, AND POSTING REQUIREMENTS

A. Ecology Notification Requirements

1. Pre- and post-treatment notification

   The Permittee must email pre-and post-treatment information to Ecology, at apamprepostttreat@ecy.wa.gov, each week that treatment occurs using the form in Appendix B. Ecology must receive the form no later than 8:00 am on each Monday for the week in which treatment will occur. For unforeseen events, the Permittee may **occasionally** provide Ecology with less notice so long as pre-treatment notification occurs at least two days prior to the treatment. The permittee must use legible handwriting if the notifications are handwritten.

2. Adverse incidents or spills

   Contact 911 or poison control when necessary. The Permittee must then immediately call the appropriate Ecology regional contact and Ecology headquarters or 1-800-645-7911 when they are made aware of any of the following conditions occurring during or after a treatment:

   a. Any person(s) exhibiting or indicating any toxic and/or allergic response as a result of the treatment.

   b. Any fish or fauna exhibiting stress or dying inside or outside of the treatment area.

   c. Any spill of chemicals covered under this permit that occurs into the water, or onto land with a potential for entry into waters of the State.

B. Ecology Inspection Coordination Requirements

1. At Ecology's request, each Permittee must coordinate and schedule inspections with Ecology staff.
2. For scheduled inspections, the Permittee must not apply chemicals until Ecology staff is present, unless Ecology staff does not arrive within 30 minutes of the scheduled start time.

C. Residential and Business Notification

1. Using the template on the permit webpage, the Permittee must provide Residential and Business Notice (notice) to all waterfront residences and businesses within one-quarter mile in each direction along the waterbody shoreline or across the water from proposed treatment areas.
2. In the treatment notification, the area of treatment must be defined either by a polygon area clearly labeled on a map of the treatment site, or by the latitude and longitude points of the corners of that polygon area, reported in decimal degrees.
3. The Permittee may provide the notice by mail, newsletter, or handbills delivered directly to the residences or businesses.
4. This permit does not authorize trespass or damage to property as a result of providing business and residential notices.
5. Businesses and residents must receive the notice at least 10 days in advance, and at most 42 days in advance, before the first treatment of each year. If the notice explains the **application schedule** for the entire treatment season and there is no deviation from that schedule (with an exception for cyanobacteria treatment), Ecology requires no further notice for the rest of the treatment season.

   On waterbodies with a history of cyanobacterial blooms, the Permittee may explain in the notice that algae treatment may occasionally occur outside of the scheduled time periods without prior notice depending on bloom conditions. For all other treatments, the Permittee must specifically identify the application schedule and notify businesses and residents with the application schedule. The Permittee must provide additional notification to any resident or business that specifically requests further notification of treatment dates.
6. Business and residential notices for permit coverages in Water Resource Inventory Areas 7 (Snohomish), 8 (Cedar/Sammamish), and 9 (Duwamish/Green) (https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-availability/Watershed- look-up) must be sent to talise.rey@muckleshoot.nsn.us.

   If the email contact becomes out-of-date Ecology will provide updated contact information.

7. The Permittee must email to Ecology, at apamreposttreat@ecy.wa.gov, a copy of the notice, the date of distribution, and a list of addresses that the notice was delivered to, no later than one business day following public distribution (also see General Condition G1). The Permittee must email a copy of the notice, including the date of distribution, to the Department of Natural Resources (DNR) at dnrreais@dnr.wa.gov no later than one business day following public distribution. The Permittee need not notify DNR for treatments occurring on privately-owned lakes with no public access.

8. Ecology does not require business and residential notice for applications made to limited access highways, fenced wetland mitigation sites, or other facilities where no **reasonable public access** exists and there are no potable water intakes. When applications are made to waters with no reasonable public access and no potable water intakes, Permittees must provide Ecology with a copy of the treatment notice as required in Special Condition S5.C.6.

D. Shoreline Recreational Facilities Notification Requirements

1. Permittees must notify the facility manager when a pesticide application will occur in or within 400 feet of a facility's swimming area or recreational area.

2. Notification must occur at least 10, but no more than 42 days prior treatment.

3. Facility notification must include the name of the product being applied, the time period during which treatment will occur, any drinking, swimming or recreational advisories or restrictions, and Permittee contact information.

4. Notification to the shoreline recreational facility manager is not required when notification to the shoreline recreational facility manager was provided through the business and residential notice (S5.C).

E. Shoreline Posting Requirements

1. General Requirements for posting on shorelines. The Permittee must:

   a. Use templates provided on the APAM permit[12] webpage.

   b. Post signs no more than 48 hours prior to treatment.

   c. Post signs so that they are secure from the normal effects of weather and water currents.

   d. Make best efforts to ensure that the signs remain in place and are legible until the end of the period of water use restrictions.

   e. Remove all old signs at the end of the period of water use restriction.

[12] https://ecology.wa.gov/regulations-permits/permits-certifications/aquatic-pesticide-permits/aquatic-plant-algae-management

If applying more than one chemical in an area, the Permittee may list all chemicals on the sign, but must use the template and restrictions for the chemical with the most stringent water use restrictions.

If the majority of the affected community speaks a language other than English, the Permittee may use online translation websites to make signs for these communities.

For continuous injection treatments for phosphorus control projects, the Permittee does not need to post the lake.

Ecology does not require shoreline posting in areas where public access is limited to boat only access and there are no private residents, except in boat launch areas as described in S5.E.3.

2. Posting **Privately or Publicly-Owned** Shoreline Areas (excluding **public access areas**) with 8 ½ by 11-inch signs.

    a. The Permittee must post signs at each waterfront private residence or business property that is within 400 feet of a treated area.

    b. The Permittee must post the signs to face both the water and the shore and site them where they are most visible to residents (within approximately ten feet of the shoreline). The Permittee must post one sign for approximately every 100 feet of shoreline. In order to post signs on gates and doorways of private residences or businesses, it must not be possible to post notices along the shoreline. All reasonable efforts must be made to post notices along the shoreline visible to both the water and the shore. If a Permittee provides shoreline notification signs on a gate or doorway they must note this in their pre- and post-treatment reports to Ecology (Special Condition S5.A.1).

    c. If the shoreline is only accessible by entering through a gate, the Permittee may post a sign at each gate that allows access to, or is within 400 feet of, a treated area. The Permittee does not need to post additional signs.

3. Posting Shoreline **Public Access Areas** with Two Foot by Three Foot Signs

    a. The Permittee must post signs at all public access areas on the waterbody that are within 400 feet of a treated area and at all **public boat launches** on the waterbody within one quarter mile of a treated area.

    b. The Permittee must site the signs so that they are clearly visible to people using the public access area, spacing the signs approximately every 100 feet of shoreline and within approximately 25 feet of the shoreline. Signs must face both the water and the shore. At public boat launches, signs need only face the shore.

    c. If a public shoreline is only accessible by entering through a gate, the Permittee may post a sign at each gate that allows access to, or is within 400 feet of a treated area. The Permittee does not need to post additional signs.

d. Signs must be a minimum size of two feet by three feet and constructed of durable weather-resistant material. The Permittee must attach an 8 ½ by 11-inch weather resistant map detailing the treatment areas for each chemical used. The map must identify the location(s) of the treatment site(s), identify addresses or parcels that represent the start and end points of the treatment area or provide GPS coordinates that represents the corners of the treatment area polygon or identify a whole waterbody treatment and mark the reader's location. If the Permittee applies more than one chemical, it must mark each treated area and appropriate chemical on the map.

   Signs must:

   i. Include the word "CAUTION" in bold black type at least two inches high.

   ii. Use a font at least ½ inches high for all other words.

4. Posting **Public Pathways** Along a Treated Waterbody

   a. The Permittee must post two foot by three foot (2' x 3') signs at all **public entrances** to public pathways that allow reasonable direct access to the waterbody and that are within 400 feet of a treated area.

   b. The Permittee must post 8 ½ by 11-inch signs at approximately 100 foot intervals along the pathway along any treated areas and within 400 feet of any treated areas.

5. Posting for Roadside/Ditch Bank Aquatic Applications

   a. The Permittee does not need to post signs for roadside applications or applications to areas with no reasonable public access.

   b. For those sites with public access areas, the Permittee must:

      i. Post signs no more than 48 hours before an application.

      ii. Place signs at any boat launch within 1/4 mile of any treated area. Signs must be within 25 feet of the shoreline, facing both the water and shore.

   c. The Permittee is responsible for the removal of all signs at the end of each treatment season, but may use biodegradable sign material so that removal is not necessary.

6. This permit does not authorize trespass or damage to property from posting of shoreline signs or notices.

F. Other Notification Requirements

1. Fish Hatcheries

   The permittee must notify any fish hatchery that withdraws water from the area where treatment will occur at least 10 days prior to treatment if the product contains active ingredients listed in Table 2 as subject to treatment timing windows for fish.

2. Public Water Systems

   In addition to the notification and consent requirements for public water systems in S2.B.2, the permittee must notify any public water systems that withdraw water from treatment areas where treatment will occur using aluminum sulfate, sodium aluminate, calcium hydroxide/oxide and calcium carbonate. This notification must occur at least 10 days prior to treatment. These products could impact the treatment processes used by the public water system by changing the pH at the drinking water intake or include chemicals that may be used in drinking water treatment.

S6. MONITORING REQUIREMENTS

State law gives Ecology the authority to require monitoring of treated waterbodies to determine the effects of discharges on surface waters of the State, WAC 173-220-210. Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136 (or as applicable in 40 CFR subchapters N [Parts 400–471] or O [Parts 501-503]) unless otherwise specified in this permit. Ecology may only specify alternative methods for parameters without limits and for those parameters without an EPA-approved test method in 40 CFR Part 136.

All samples must be analyzed by a laboratory registered or accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC. If no laboratory is accredited to perform the analysis, the Permittee may use an unaccredited laboratory provided they follow standard industry practices for analysis, chain of custody, and quality assurance. When collected during field monitoring, measurements of the following parameters need not be accredited or registered:

1. Flow
2. Temperature
3. Settleable solids
4. Conductivity, except that conductivity must be accredited if the laboratory must otherwise be registered or accredited.
5. pH, except that pH must be accredited if the laboratory must otherwise be registered or accredited.

6. Turbidity, except that turbidity must be accredited if the laboratory must otherwise be registered or accredited.

Parameters which are used solely for internal process control.

Documentation of monitoring activities and results must include (if applicable):

1. The date, exact place, and time of sample collection.
2. The date analyses were performed.
3. Who performed the analyses.
4. The analytical techniques/methods used (if any).
5. The results of such analyses.
6. Contract laboratory reports (with QA/QC).
7. Chain-of-custody documentation.

A. Application of Herbicides and Algaecides

1. Impaired Waterbodies

   The Permittee must monitor dissolved oxygen levels pre- and post-treatment when contact herbicides are used in waterbodies on the 303(d)-list for dissolved oxygen[13].

   a. Immediately before treating, the Permittee must monitor surface and bottom dissolved oxygen concentrations at sampling locations in the center and at the edge of each proposed treatment area. After the initial treatment the Permittee must select at least one representative treatment area to monitor each time the waterbody is treated.

   b. The Permittee must monitor post-treatment surface and bottom dissolved oxygen concentrations no earlier than seven days and no later than 14 days after the treatment, at the **same time of day** that the pre-treatment monitoring occurred and at the same sites and depths.

   c. The Permittee must submit this data to Ecology no later than 30 days after the post-treatment monitoring date, using the Water Quality Permitting Portal (WQWebPortal)[14].

   d. See S4.D.6 for algaecide treatment guidance for non-impaired waterbodies.

[13] https://ecology.wa.gov/water-shorelines/water-quality/water-improvement/assessment-303d-list
[14] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/water-quality-permits-guidance/wqwebportal-guidance

B. Application of Phosphorus Control Products

1. Pre-treatment dose assessment

   A pre-treatment assessment is required to determine the application dose needed based on the mass of phosphorus to be controlled. This assessment occurs in advance of the treatment to determine the amount of product needed to adequately reduce phosphorus in the water column and/or sediment. There are numerous methods to accomplish this. The information described in S6.B.7.b for the target dose and actual dose must be submitted to Ecology along with the monitoring data for each treatment.

2. The permittee must monitor the waterbody according to the following procedures when performing any phosphorus control treatments.

   a. Sampling locations must be representative of the planned treatment area(s). Whole waterbody treatments only require one location for water column profiles and sampling. Unless otherwise specified in this section, partial waterbody treatments must have at least one water column profile and sampling location within the treated area(s) and one outside the treated area(s).

   b. Water samples must be taken from the same locations before, during and after treatment. This does not apply to pH measurements required during treatments with alum or calcium products as described below.

   c. The latitude and longitude coordinates of water sampling locations must be recorded in decimal degrees, with at least 4 decimal places. (0.0001)

   d. Monitoring to determine pre-treatment conditions must include a minimum of 3 monitoring results collected within 3 months prior to the first treatment of the year.

   e. Monitoring events must be conducted following the schedules for each treatment type as described in the applicable section below.

   f. Post-treatment monitoring events from 1 to 12 months after treatment may be conducted within a week of the period listed.

   g. Permittees may request that Ecology approve modified monitoring requirements based on previous results. For example, if previous monitoring data shows that the applicable active ingredient(s)(e.g., aluminum, lanthanum, iron or calcium) and conventional water quality parameters have returned to pre-treatment levels as demonstrated by at least two consecutive post-treatment monitoring events, or that several prior treatments in a waterbody have never exceeded applicable criteria.

3. Aluminum sulfate and/or sodium aluminate (alum).

   Conduct the monitoring described below following the schedule shown in Table 5. Note there are also requirements to notify public water systems of nearby alum treatments in S5.F.2.

   a. Daily Testing

      A test must be completed on-site each day of treatment prior to the start of applications to confirm that the amount of Alum and buffer (if being used) does not result in lake water pH values outside permit specifications. In addition, the on-site test serves to assess the chemicals delivered to the site meet project specifications. It does not confirm that the alum dose calculated prior to treatment will be effective. Daily testing should be conducted based on the following protocols:

      i. Collect lake water from within the planned treatment area(s) at 0 to 0.5 meter depth. The amount of water needed will vary depending on the testing. Typically a separate 5-gallon bucket, or similar container, is used for each ratio of alum to buffer being tested. Conduct these tests out of direct sunlight to minimize the impact of algae photosynthesis on pH results.

      ii. Measure the pH in each container (e.g. bucket, tote, garbage can).

      iii. Apply the prescribed dose(s) of aluminum sulfate and sodium aluminate (if using) calculated for the amount of water in each container. Mix well. Leave one container untreated to serve as a control.

      iv. Measure the pH in all containers at set time intervals after dosing. For example, at 5 minutes, 15 minutes, 30 minutes, and 60 minutes.

      v. Evaluate the pH change of the water sample and compare to the permit requirements.

      vi. If necessary, adjust the buffer and conduct the test again. Repeat until the results confirm that the prescribed dose and alum to buffer ratio (if using a buffer) does not result in pH changes outside of permit requirements.

      vii. Record notes and results of the tests in daily logs, and report the changes in pH observed.

   b. Parameters measured as a vertical profile of the water column (in situ)

      To determine pre-treatment and post-treatment conditions and changes to conventional water chemistry.

      i. pH, Temperature, (°C), Conductivity, (µS/cm), Dissolved Oxygen, (DO; mg/L), % DO saturation taken with calibrated water quality probes or a multi-probe sonde.

ii. As a water column vertical profile, measured at each meter to within 0.5 m above the bottom sediment. For lakes over 10 meters in depth, measurements can be conducted at 2 meter intervals.

iii. Collected at locations described in S6.B.2.a pre-treatment, during treatment, the day after treatment, and following Table 5.

c. Parameters collected as samples for laboratory analysis

To determine pre-treatment and post-treatment concentrations assess aluminum toxicity thresholds, and sulfate.

i. Hardness (as CaCO3), Total alkalinity (mg/L), Dissolved Organic Carbon (mg/L), Total Aluminum, (µg/L), Sulfate (mg/L).

ii. As representative of the water column: (1) collect 1 sample at mid depth in a mixed water column., or (2) collect 1 sample in the middle of the epilimnion layer and 1 in the middle of the hypolimnion layer if the water column is thermally stratified.

iii. Collected pre-treatment, the day after treatment, and following Table 5.

d. pH Monitoring During Treatment

Used for adaptive management of the treatment, and to retroactively assess aluminum toxicity thresholds for alum. If the pH decreases to less than 6.2, as a precaution the Permittee must stop the treatment to help prevent pH from dropping below the state water quality standard of 6.0.

i. The monitoring requirements for whole or partial lake treatments are:

- Measure a location outside the treatment area, and locations within the treatment area(s).
- Measure in the water column at 0.5 - 1 meter depth.
- Take pH measurements before treatment each day, and during treatment every 30-60 minutes after each pass of the application vessel.

e. For continuous injection treatments, the Permittee must measure pH at a minimum once every two weeks during the first month of continuous injection and thereafter once a month for the duration of the injection process. The Permittee must ensure that pH measurements represent waterbody-wide conditions, unless the injection system is in an isolated area in relation to the main waterbody (e.g., in a bay with a narrow channel to the main waterbody). For isolated areas of waterbodies, the Permittee must measure pH at the end of the bay and in the main waterbody.

Table 5: Monitoring Schedule Summary for Alum

Frequency	pH (in situ)	(Vertical profile) pH, Temperature, Conductivity, Dissolved Oxygen, % Saturation	Hardness (as CaCO3)	Total alkalinity (mg/L)	Dissolved organic carbon (mg/L)	Total aluminum (µg/L)	Sulfate (mg/L)
Pre-treatment	—	✓	✓	✓	✓	✓	✓
During	✓	✓	—	—	—	—	—
Day after treatment	—	✓	✓	✓	✓	✓	✓
2 weeks	—	✓	✓	✓	✓	✓	✓
1 month	—	✓	✓	✓	✓	✓	✓
2 months	—	✓	✓	✓	✓	✓	✓
6 months	—	✓	✓	✓	✓	✓	✓
9 months	—	✓	✓	✓	✓	✓	✓
12 months*	—	✓	✓	✓	✓	✓	✓

Pre-treatment must include a minimum of 3 samples within 3 months of treatment.
*Some post-treatment sampling events may be suspended as described in S6.B.2.g.

4. Lanthanum based treatments

   Monitor at representative locations as described in S6.B.2.a to determine pre-treatment and post-treatment conditions and changes to conventional water chemistry. Conduct pre-treatment, the day after treatment, and up to 12 months post treatment following the schedule in Table 6.

   a. Parameters measured in the water column (in situ)

      i. pH, Temperature(°C), Conductivity (µS/cm), Dissolved Oxygen (DO; mg/L), % DO saturation.

      ii. As a water column vertical profile, measured at each meter to within 0.5 m above the bottom sediment. For lakes over 10 meters in depth, measurements can be conducted at 2 meter intervals.

   b. Parameters collected as samples for laboratory analysis

      i. Hardness (as CaCO3), Total alkalinity (mg/L), Total lanthanum (mg/L), and filterable lanthanum (mg/L). Dissolved Organic Carbon (mg/L) is only required for pre-treatment assessment.

      ii. Sample in a mixed water column (unstratified) at mid depth. If the waterbody is stratified, collect 1 sample in the middle of the epilimnion layer and 1 in the middle of the hypolimnion layer.

Table 6: Monitoring Schedule Summary for Lanthanum Products

Frequency	pH, Temperature, Conductivity, Dissolved Oxygen, % Saturation	Hardness (as CaCO3)	Total alkalinity (mg/L)	Dissolved organic carbon (mg/L)	Total Lanthanum (µg/L)	Filterable Lanthanum (µg/L)
Pre-treatment	✓	✓	✓	✓	✓	✓
Day after treatment	✓	✓	✓	—	✓	✓
1 month	✓	✓	✓	—	✓	✓
2 months	✓	✓	✓	—	✓	✓
3 months	✓	✓	✓	—	✓	✓
6 months	✓	✓	✓	—	✓	✓
9 months	✓	✓	✓	—	✓	✓
12 months*	✓	✓	✓	—	✓	✓

Pre-treatment must include a minimum of 3 samples within 3 months of treatment.
* Some post-treatment sampling events may be suspended as described in S6.B.2.g.

5. Iron based treatments

   Monitor at representative locations as described in S6.B.2.a to determine pre-treatment and post-treatment conditions and changes to conventional water chemistry. Conduct pre-treatment, the day after treatment, and up to 3 months post treatment following the schedule in Table 7.

   a. Parameters measured in the water column (in situ)

      i. pH, Temperature(°C), Dissolved Oxygen (DO; mg/L), % DO saturation.

      ii. As a water column vertical profile, measured at each meter to within 0.5 m above the bottom sediment. For lakes over 10 meters in depth, measurements can be conducted at 2 meter intervals.

   b. Parameters measured in samples collected for laboratory analysis

      i. Sample for nitrate and total iron, following protocols for sample preservation.

      ii. Sample in a mixed water column (unstratified) at mid depth. If the waterbody is stratified, collect 1 sample in the middle of the epilimnion layer and 1 in the middle of the hypolimnion layer.

Table 7: Monitoring Schedule Summary for Iron Products

Frequency	pH, Temperature, Dissolved Oxygen, % Saturation	Nitrate (mg/L)	Total Iron (µg/L)
Pre-treatment	✓	✓	✓
Day after treatment	✓	✓	✓
1 month	✓	✓	✓
2 months	✓	✓	✓
3 months	✓	✓	✓

Pre-treatment must include a minimum of 3 samples within 3 months of treatment.
* Some post-treatment sampling events may be suspended as described in S6.B.2.g.

6. Calcium hydroxide/oxide or calcium carbonate treatment

   Monitor at representative locations as described in S6.B.2.a to determine pre-treatment and post-treatment conditions and changes to conventional water chemistry. Conduct pre-treatment, the day after treatment, and up to 12 months post treatment following the schedule in Table 8. Note there are also requirements to notify public water systems of nearby treatments with calcium products in S5.F.2.

   a. The pre-treatment dose assessment to identify proper dosing levels of calcium products must be conducted over at least a 24-hour period to ensure that the pH response is at equilibrium with water chemistry.

   b. Measure Temperature(°C), Conductivity (µS/cm), Dissolved Oxygen (DO; mg/L), and % DO saturation once the day before treatment, the day after treatment, and following the schedule in Table 8.

   c. The Permittee must measure pH in the treatment area once on the day before treatment, once in the morning prior to treatment, and at least hourly during treatment and for 24 hours following treatment. If the pH is above 9.0 due to the effects of the treatment (rather than through photosynthesis), the Permittee must stop treatment.

   d. As a water column vertical profile, measured in a mixed water column (unstratified) at mid depth. If the waterbody is stratified, collect 1 sample in the middle of the epilimnion layer and 1 in the middle of the hypolimnion layer.

   e. For continuous injection systems, the Permittee must measure pH at a minimum once every two weeks during the first month of continuous injection and thereafter once a month for the duration of the injection process. The Permittee must ensure that pH measurements represent waterbody-wide conditions, unless the injection system is in an isolated area in relation to the main waterbody (e.g., in a bay with a narrow channel to the main waterbody). For isolated areas of waterbodies, the Permittee must measure pH at the end of the bay and in the main waterbody.

Table 8: Monitoring Schedule Summary for Calcium Products

Frequency	pH (in situ)	(Vertical profile) pH, Temperature, Conductivity, Dissolved Oxygen, % Saturation	Hardness (as CaCO3)	Total alkalinity (mg/L)
Pre-treatment	—	✓	✓	✓
During	✓	—	—	—
Day after treatment	—	✓	✓	✓
1 month	—	✓	✓	✓
2 months	—	✓	✓	✓
3 months	—	✓	✓	✓
6 months	—	✓	✓	✓
9 months	—	✓	✓	✓
12 months*	—	✓	✓	✓

Pre-treatment must include a minimum of 3 samples within 3 months of treatment.
* Some post-treatment sampling events may be suspended as described in S6.B.2.g.

7. Reporting Phosphorus Control Monitoring Data

    a. The permittee will send all monitoring data described in S6.B to the Department of Ecology at aquaticpesticideperm@ecy.wa.gov within 60 days of each sampling event.

    b. In addition to the monitoring data report the following information on the target dose and actual dose for each phosphorus control product used along with the monitoring data for each treatment:

        i. Calculated target dose from pre-treatment or sediment calculations of active ingredient. (i.e. necessary to achieve intended phosphorus reduction).

        ii. Report the total area (acres or hectares) treated, the total amount (weight) of active ingredients used, and the actual volumetric or areal dose applied.

    c. Permittees must report all observed distressed or dead fish, birds, or other wildlife as described in section S5.A.2, Adverse Incidents or Spills. Water quality exceedances must be reported as described in section S7.D.

S7. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee must submit pesticide/product application information in accordance with the following conditions.

A. Annual Treatment/Monitoring Reports

1. By December 31 of each year, the Permittee must submit its Annual Treatment and Monitoring Report electronically through Ecology's online Water Quality Permitting Portal (WQWebPortal)[15].
2. The Permittee must submit an annual treatment/monitoring report regardless of whether a treatment or monitoring occurred. The report must include: waterbody name, chemicals used, amount of active ingredient applied in pounds, acreage treated, monitoring results, and the plant species targeted.
3. Separate annual report documents must be submitted for each permit coverage.
4. The Permittee must submit any dissolved oxygen monitoring data required under this permit using Ecology's online Water Quality Permitting Portal (WQWebPortal) no later than 30 days after the post-treatment monitoring date, unless otherwise specified in this permit.

B. Records Retention

1. The Permittee must retain records of all permitting and monitoring information for a minimum of five (5) years, or as required by applicable law. Such information must include copies of all reports required by this permit, plant surveys, and records of all data used to complete the application for this permit.
2. The Permittee must keep records longer in the event of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.
3. The Permittee must make the records, reports, surveys, plans, public notices (including a list of locations or addresses to which they were delivered), and other information required by this permit available to Ecology upon request.

C. Recording of Results

For each measurement or sample taken, the Permittee must follow the recording provisions outlined in WAC 173-226-090 (2).

D. Noncompliance Notification

Compliance with the requirements of this Special Condition does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failing to comply.

In the event the Permittee is unable to or does not comply with any part of this permit, which may threaten human health or the environment, the Permittee must, upon becoming aware of the circumstances:

[15] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/water-quality-permits-guidance/wqwebportal-guidance

1. Immediately take action to minimize potential pollution or otherwise stop the noncompliance and correct the problem.
2. Immediately notify the appropriate Ecology regional office and the aquatic pesticides permit manager of the failure to comply via the regional spills telephone hotline and the aquatic pesticides permit manager's phone number below.

Central Regional Office (CRO) **509-575-2490**

Counties: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima

Eastern Regional Office (ERO) **509-329-3400**

Counties: Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman

Northwest Regional Office (NWRO) **206-594-0000**

Counties: Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom

Southwest Regional Office (SWRO) **360-407-6300**

Counties: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum

Aquatic Pesticide Permit Manager **(360) 407-6600**

3. The Permittee must provide a written report to Ecology's Aquatic Pesticide Permit Manager within five (5) business days of the time that the Permittee becomes aware of any permit non-compliance unless Ecology requests an earlier submission. The report must contain:
    a. A description of the noncompliance and its cause,
    b. The exact date(s), time(s), place(s), and duration(s) of the noncompliance,
    c. Whether the noncompliance has been corrected and, if not,
    d. When the noncompliance will be corrected, and
    e. The steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

    Upon request of the Permittee, Ecology may waive or extend the requirement for a written report on a case-by-case basis, if the immediate notification (S7.D.2) is received by Ecology within 24 hours.

4. The Permittee must submit noncompliance notifications to: Washington State Department of Ecology

   Washington State Department of Ecology
   Water Quality Program
   Attn: Aquatic Pesticide Permit Manager
   PO Box 47696
   Olympia, WA 98504-7696

S8. SPILL PREVENTION AND CONTROL

A. Spill Prevention

The Permittee must:

1. Handle, store, and use all oil, fuel, chemicals, or products authorized under this permit in a manner that prevents spills.
2. Ensure that it maintains all mobile equipment to prevent leaks or spills of petroleum products.
3. Have absorbent materials available for cleanup or the spill containment materials recommended in the Material Safety Data Sheet for that product, including appropriate cleanup materials for a spill of the products being applied.

B. Spill Notification Requirements

The Permittee must immediately report spills to Ecology by calling 1-800-645-7911. See https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill for more environmental reporting information. (see also S7.D Noncompliance Notification)

C. Spill Cleanup Requirements

1. In the event of a spill, the Permittee must begin immediate containment and cleanup using appropriate materials. Cleanup takes precedent over normal work.
2. Cleanup includes proper disposal of any spilled materials and used cleanup materials.

S9. MITIGATION FOR PROTECTION OF SENSITIVE, THREATENED, OR ENDANGERED PLANTS

A. Survey Requirements

If Ecology notifies the Permittee that a rare plant species (rare plant) is reported to occur in a proposed treatment area at the time of permit coverage, the Permittee must conduct a detailed plant survey prior to herbicide treatments (unless Ecology waives this requirement). One source of this information is the DNR Natural Heritage Program map of known rare plants[16] locations.

1. A **botanist** must perform the survey. The person conducting the survey must not have a financial or personal interest in the treatment.
2. Conduct the survey using appropriate methods, such as those described in the Ecology publication Aquatic Plant Sampling Protocols[17] available on the APAM permit web page, or as otherwise approved by Ecology's Aquatic Plant Specialist. Permittees may also consult with the Natural Heritage Program's botanist to determine if specialized sampling protocols are needed for the rare plant(s).
3. The botanist must survey when plants are present and can be positively identified, but no earlier than three months before treatment unless approved by Ecology.
4. The survey must cover 100% of the waterbody that is identified as suitable habitat for the rare plant of concern. Permittees may request to limit the survey area in larger waterbodies.
5. Conduct the survey each year before treatment for rare submersed, free-floating, or floating-leaved plants and once every five years for rare emergent shoreline plants. Permittees may request less frequent surveys of rare perennial plants if previous data has already been collected.
6. The Permittee must submit the survey data to Ecology at least thirty days before treatment using the Water Quality Permitting Portal (WQWebPortal)[18]. If the survey identifies rare plants, permittees must submit a map showing the location of the rare plant(s). Ecology may modify or suspend the annual survey requirement if it determines that the treatment(s) have had no adverse effect on the rare plant population. The Permittee may begin treatment earlier than thirty days after data submission if they receive Ecology approval before the 30 days has elapsed **and** if the earlier treatment time does not conflict with WDFW treatment timing windows. The Permittee may not begin treatment prior to receiving Ecology approval.

[16] https://experience.arcgis.com/experience/174566100f2a47bebe56db3f0f78b5d9/page/Rare-Plant-and-Ecosystem-Locations/?data_id=dataSource_1-1860f1593ba-layer-47%3A2497&views=P%26E-View---Legend
[17] https://apps.ecology.wa.gov/publications/SummaryPages/0103017.html
[18] https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/water-quality-permits-guidance/wqwebportal-guidance

B. Mitigation

1. If the reported rare plant ***is not*** found in the treatment area during the plant survey, the Permittee must:

    a. Use a selective herbicide (if applicable) or an herbicide demonstrated to have little effect on the rare plant, or

    b. If a selective herbicide is not available, use the lowest effective concentration of herbicide for the target plant if the Permittee can demonstrate that the rare plant is tolerant to the herbicide at that concentration.

2. When a rare plant is found in the treatment area, the Permittee must apply prescribed buffers (where required) and select one or more mitigation choices listed below to minimize treatment impacts to the rare plant. Ecology may require monitoring the vitality of rare plant populations after treatment. The Permittee must not allow treatment to affect the viability of the rare plant population.

3. Mitigation measures for:

    a. Submersed, free-floating, or floating-leaved plants: If the rare plant is submersed, free-floating, or floating-leaved and the herbicide application is intended to control submersed species, the Permittee must choose one or more of the mitigation measures below:

        i. Maintain a 100-foot no-treatment buffer around the rare plants when using contact herbicides and consult with Ecology when using systemic herbicides to determine appropriate buffer distances. If the Permittee has difficulty maintaining a buffer from the majority of the rare plant population, they must consult with Ecology for other options.

        ii. Use a selective herbicide (if applicable) or an herbicide demonstrated to have little effect on the rare plant.

        iii. Use the lowest effective concentration of herbicide for the target plant if the Permittee can demonstrate that the rare plant is tolerant to the herbicide at that concentration.

        iv. Use barriers or containment structures (e.g. silt curtains) to protect the rare plant.

        v. For free-floating rare plants, temporarily relocate the plants to an untreated area.

        vi. Time the treatment during the growing season to prevent impacts to the rare plant.

    b. Emergent plants: If the rare plant is emergent or floating-leaved and the targeted plants are being treated above the water (i.e., target plants are emergent), the

Permittee must maintain a no treatment buffer of at least 10 feet from the rare plant and choose one or more of the following mitigation measures:

i. Use a selective herbicide (if applicable) or an herbicide demonstrated to have little effect on the rare plant.

ii. Select an application technique designed to cause less non-target damage (e.g., low-drift nozzle heads, wiper applications, sponge bars, injection, temporarily covering the rare species, etc.).

iii. Time the treatment during the growing season to prevent impacts to the rare plant.

S10. APPENDICES

The attached appendices are incorporated by reference into this permit.

APPENDIX A - DEFINITIONS

APPENDIX B - ECOLOGY NOTIFICATION TEMPLATES

APPENDIX C - FLURIDONE VEGETATION MANAGEMENT PLAN

APPENDIX D – EXPERIMENTAL PHOSPHORUS CONTROL PRODUCT PLAN (EPCPP)

GENERAL CONDITIONS

The following general conditions are based on state and federal laws and regulations. They are included in all types of NPDES permits. Some general conditions may not apply to all types of permit activities.

G1. SIGNATORY REQUIREMENTS

A. All permit applications, including NOIs, Notice of Termination, and Transfer of Coverage forms, submitted to Ecology must be signed and certified.

1. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

   - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or
   - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. In the case of a partnership, by a general partner.

3. In the case of sole proprietorship, by the proprietor.

4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by the person described above and is submitted to Ecology at the time of authorization, and

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant

manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

C. Changes to authorization. If an authorization under paragraph B above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative. Any person signing a document under this section must make the following certification:

"*I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

G2. RIGHT OF ENTRY AND INSPECTION

Representatives of Ecology must have the right to enter at all reasonable times in or upon any property, public or private, for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the State.

Reasonable times include normal business hours; hours during which production, treatment, or discharge occurs; or times when Ecology suspects a violation requiring immediate inspection.

Representatives of Ecology must be allowed to have access to, and copy at reasonable cost, any records required to be kept under the terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample any discharge, waste treatment processes, or internal waste streams.

G3. PERMIT ACTIONS

This general permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

1. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit;

2. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit;

3. A water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved;

4. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this permit are unacceptable; or

5. Changes made to state law and regulations reference this permit.

G4. REPORTING PLANNED CHANGES, CAUSE FOR MODIFICATION

The Permittee must, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

B. A significant change in the nature or an increase in the quantity of pollutants discharged.

C. A significant change in the Permittee's sludge use or disposal practices.

Following such notice, and the submittal of a new application or supplement to the existing application, coverage under this general permit may be modified, or revoked. Until such modification is effective, any new or increased discharge not specifically authorized by this permit constitutes a violation.

G5. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit must be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G6. REVOCATION OF COVERAGE

Pursuant with Chapter 43.21B RCW and Chapter 173-226-240 WAC, Ecology may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

1. Violation of any term or condition of this permit;

2. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts;

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

4. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090;
5. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations;
6. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC;
7. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

Ecology may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit.

G7. TRANSFER OF THIS PERMIT

Coverage under this permit is automatically transferred to a new owner or operator if all of the following conditions are met:

A. The Permittee (existing discharger) and new discharger submit to Ecology a complete, written, signed agreement (Transfer of Coverage Form) containing a specific date for transfer of permit responsibility, coverage, and liability.

B. The type of aquatic plant and algae management activities remain substantially unchanged.

C. Ecology does not notify the Permittee of the need to submit a new application for coverage under the general permit or for an individual permit pursuant to Chapters 173-216, 173-220, and 173-226 WAC.

D. Ecology does not notify the existing discharger and new discharger of its intent to revoke coverage under the general permit. The transfer is effective on the date specified in the written agreement unless Ecology gives notice of revocation.

G8. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G9. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, or terminating coverage under this permit or to determine compliance with this permit. The Permittee

must also submit to Ecology upon request, copies of records required to be kept by this permit.

G10. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G11. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G12. PAYMENT OF FEES

The Permittee must submit payment of fees associated with this permit as assessed by Ecology. Ecology may revoke this permit if the permit fees established under WAC 173-224 are not paid.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof will be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs is a separate and additional violation. Any person who violates the terms and conditions of a waste discharge permit incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G14. UPSET

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met. A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of

the upset; 3) the Permittee submitted notice of the upset as required in condition S5.A; and 4) the Permittee complied with any remedial measures required under S9.D of this permit. In any enforcement proceedings the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit coverage termination or modification; or denial of a permit renewal application.

G17. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit will, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment will be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G19. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

G20. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application, or supplement to the existing application, at least 45 days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in

noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G21. DUTY TO REAPPLY

The Permittee must reapply for coverage under this general permit at least one hundred and eighty (180) days prior to the specified expiration date of this general permit. An expired general permit and coverage under the permit continues in force and effect until Ecology issues a new general permit or until Ecology cancels it. Only those Permittees that timely reapply for coverage are covered under the continued permit.

G22. APPEALS

1. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW and Chapter 173- 226 WAC.
2. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or non-applicability to that individual discharger.
3. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G23. SEVERABILITY

The terms of this permit are severable. If any specific term or its application to a particular situation is found invalid, this does not affect the validity or enforceability of the rest of the permit or its application to different situations. (Chapter 34.05 RCW)

APPENDIX A – DEFINITIONS

All definitions listed below are for use in the context of this permit only.

303(d): A waterbody that is listed in Washington's current EPA-approved list of Category 5 Waters, as denoted in Ecology's Water Quality Atlas. Section 303(d) of the federal Clean Water Act requires states to develop a list of polluted waterbodies every two years. For each of those waterbodies, the law requires states to develop Total Maximum Daily Loads (TMDLs). A TMDL is the amount of pollutant loading that can occur in a given waterbody (river, marine water, wetland, stream, or lake) and still meet water quality standards.

2,4-D Ester: 2,4-Dichlorophenoxyacetic acid, butoxyethyl ester.

2,4-D Amine: 2,4-Dichlorophenoxyacetic acid, dimethylamine salt.

Adjuvant: An additive, such as a surfactant, that enhances the effectiveness of the primary chemical (active ingredient).

Algae: Primitive, chiefly aquatic, one-celled, or multicellular plant-like organisms that lack true stems, roots, and leaves but usually contain chlorophyll.

Algaecide: A chemical compound that kills or reduces the growth of algae or cyanobacteria.

Algae control: Applying algaecide products to kill or suppress the growth of cyanobacteria, filamentous algae, or any algal species that have the potential to affect human or environmental health.

All known, available, and reasonable methods of pollution control, prevention, and treatment (AKART): A technology-based approach to limiting pollutants from discharges. Described in chapters 90.48 and 90.54 RCW and chapters 173-201A, 173-204, 173-216 and 173-220 WAC.

Aluminum sulfate: $Al_2(SO_4)_3 \cdot nH_2O$

Aminopyralid: 4-amino, 3,6-dichloropyridine-2-carobxylic acid.

Applicant: The licensed pesticide applicator or state or local government entity choosing to get coverage under this permit. For phosphorus control projects the applicant does not need to be a licensed applicator but may be a government entity or the person that discharges the product.

Application schedule: The proposed treatment date(s) for a specific waterbody or specific area within a waterbody during one treatment season.

Applicator: The person that discharges the chemical to a waterbody. Applicators are required to be licensed to apply registered pesticides. Some chemicals such as alum are not registered or used as pesticides and therefore the applicator does not, by state law, have to be licensed.

Aquatic nuisance plants: Any non-noxious aquatic plants that are at a density and location so as to substantially interfere with or eliminate some beneficial uses of the waterbody.

Typically these beneficial uses include activities such as boating, swimming, fishing, or waterskiing.

Aquatic plant control: The partial removal of aquatic plants within a waterbody or along a shoreline to allow for the protection of beneficial uses of the waterbody.

Biological water clarifiers: Products sold for the purpose of water clarification, removal of organic materials from sediment, and reduction of nutrients (as claimed by manufacturers).

Bispyribac-sodium: Sodium, 2,6-bis [(4,6-dimethoxy-pyrimidin-2-yl)oxy] benzoate.

Blooms: A high density or rapid increase in abundance of algae (cyanobacteria).

Botanist: A scientist that specializes in the study and identification of plants, or an individual with education and experience in the identification of plant species.

Carfentrazone-ethyl: Ethyl a,2-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4- triazol-1-yl]-4-fluorobenzenepropanoate.

Constructed waterbody: A man-made waterbody created in an area that was not part of a previously existing watercourse, such as a pond, stream, wetland, etc.

Contact herbicide: An herbicide that typically affects only the part of the plant that the herbicide is applied to. Contact herbicides often act as chemical mowers, leaving roots available for re-growth. Contact herbicides are fast-acting, but tend to result in temporary removal of the targeted plants.

Control: The partial removal of native plants, non-native non-noxious plants, algae, and noxious or quarantine-list weeds (that are not being eradicated lake-wide) from a waterbody. The purpose of control activities is to protect some of the beneficial uses of a waterbody such as swimming, boating, water skiing, fishing access, etc. The goal is to maintain some native aquatic vegetation for habitat while allowing some removal for beneficial use protection.

Cyanobacteria: A group of usually unicellular photosynthetic organisms without a well-defined nucleus; sometimes called "blue-green algae" although they are not actually algae. Some genera of cyanobacteria produce potent liver or nerve toxins.

Defined navigation channels: Clearly delineated areas that are intended to provide safe access to different sections of the waterbody by boat.

Detention or retention ponds: Man-made waterbodies specifically constructed to manage stormwater. Detention ponds are generally dry until a significant storm event. Retention (wet) ponds are designed to have a permanent pool of water and gradually release stormwater through an outlet.

Diquat: Dibromide salt of 6,7-dihydrodipyrido (1,2-a:2',1"-c) pyrazinediium.

Directly: The purposeful application of chemicals into surface waters of the State to manage the growth of submersed plants such as Eurasian watermilfoil where the intent is to add herbicides to the water to kill the plant. Herbicide application for plants such as fragrant water lily that grow in shallow water, requires coverage under the Aquatic Plant

and Algae Management General Permit rather than the Noxious Aquatic Weed Management General Permit, because significant amounts of herbicide may directly enter the water through its treatment.

Direct supervision responsibilities: Licensed certified applicators may directly supervise unlicensed applicators. Direct supervision by aquatic certified applicators means direct on-the-job supervision and requires that the certified applicator be physically present at the application site and that the person making the application be in voice and visual contact with the certified applicator at all times during the application (RCW 17.21.020[13]).

Emergent vegetation: Aquatic plants that generally have their roots in the water, but the rest of the plant is above water (e.g., cattails, bulrush).

Endothall Dipotassium Salt: Dipotassium salt of 7-oxabicyclo[2.2.1]heptane-2,3dicarboxylic acid.

Endothall Mono Salt: mono(N,N-dimethylalkyalmine) salt of 7- oxabicyclo[2.2.1]heptane-2,3- dicarboxylic acid.

Epilimnion: the upper layer of water in a thermally stratified[19] lake[20]. The epilimnion extends down from the surface to the Thermocline, which forms the boundary between the warmer upper layers of the epilimnion and the colder waters of the lower depths, or Hypolimnion. The epilimnion is less dense than the lower waters, is wind-circulated and typically has higher dissolved oxygen and a consistent temperature.

Eradication: The permanent removal of all individuals of a plant species from a waterbody or along a shoreline.

Experimental Use Permits (EUP): Federal Experimental Use Permits are issued by the U.S. Environmental Protection Agency (EPA). Washington State Experimental Use Permits (WSEUP) are issued by the Washington State Department of Agriculture (WSDA). These allow the use of pesticides that are not registered or experiments involving uses not allowed by the pesticide label. A state individual EUP is required for pesticide applications to an aquatic site regardless of size. A federal EUP is required if the treated surface area is larger than 1 acre. Please contact WSDA for more information: https://agr.wa.gov/departments/pesticides-and-fertilizers/pesticides/pesticide-registration/product-registration/special-registrations/experimental-use-permit

Farm pond: Private farm ponds created from upland sites that did not incorporate natural waterbodies (WAC 173-201A-260(3)(f)).

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA): The federal law that establishes the basic U.S. system of pesticide regulation to protect applicators, consumers, and the environment through establishment of regulations that require uniform pesticide product labeling, use restrictions, and review and labeling of new pesticides (7 U.S. Code Section 136 et seq. as amended).

[19] https://en.wikipedia.org/wiki/Lake_stratification
[20] https://en.wikipedia.org/wiki/Lake

Filamentous algae: Typically green algae species that grow in long strings or form cloud-like mats in water. Filamentous algae do not produce toxins.

Floating-leaved plants: Plants that are rooted in the sediment but have leaves floating on the water's surface (e.g., water lilies).

Florpyrauxifen-benzyl: 2-pyridinecarboxylic acid, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)- 5-fluoro-, phenyl methyl ester.

Flumioxazin: 2-[7-fluro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro- 1H-isoindole-1,3(2H)-dione.

Fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone.

Glyphosate: N-(phosphonomethyl)glycine, isopropylamine salt.

Herbicide: Any substance or mixture of substances intended to prevent, destroy, repel, or mitigate any weed or other higher plant (see chapter 17.21.020 RCW).

High use areas: Any areas that get a high level of human use. Examples include community and public boat launches, marinas, public or community swim beaches, and canals.

Hypolimnion: The lowermost, non-circulating layer of colder water in a thermally stratified lake or reservoir that lies below the Thermocline. This bottom layer receives less sunlight, and is usually lower in dissolved oxygen.

Identified and/or emergent wetlands: Identified wetlands are those identified by either local, state, or federal agencies as being important wetlands. Emergent wetlands (marshes) are characterized by plants growing with their roots underwater and leaves extending above the water (emergent plants).

Imazamox: 2-[4,5-dihydro-4-methyl-(1-methylethyl)-5-oxo-1H-imidazol-2yl]-5-(methoxymethyl)-3- pyridinecarboxylic acid.

Imazapyr: 2-(4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-y1)-3-pyridinecarboxylic acid.

Indirectly: The purposeful application of a chemical to a weed where there may be inadvertent and incidental overspray or dripping of chemical from the plant into waters of the State. The applicator does not intentionally add the chemical to the water to treat the plant (as occurs during in-water treatments for submersed plants such as Eurasian watermilfoil). Indirect application to water may occur into adjacent water bodies or wetlands, particularly when treating plants where the roots may be submerged and the foliage is above water. An example is the control of knotweeds along riparian corridors – the applicator applies herbicide to the plant, but there may be some inadvertent overspray into the water or the herbicide can drip from the plant into a stream.

Indian Country: Means as defined in 18 USC 1151: "Except as otherwise provided in sections 1154 and 1156 of this title, the term ''Indian country'', as used in this chapter, means (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including

rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same."

Individual treatments: Treatments done at the request of an individual owner under a permit coverage specific to that property only.

Intentionally apply: The permit allows the applicator to directly discharge an herbicide, algaecide, or other product identified in this permit into areas designated for treatment (e.g., via hoses, granular pellets, etc.). Note that products applied directly to the water may disperse outside of the boundaries of the treated area.

Levees and dikes: Typically earth structures (dams) that keep elevated water levels from flooding interior lowlands.

Licensed pesticide applicator: Any individual who is licensed as a commercial pesticide applicator, commercial pesticide operator, public operator, private-commercial applicator, demonstration and research applicator, or certified private applicator, or any other individual who is certified by the director of WSDA to use or supervise the use of any pesticide which is classified by the EPA as a restricted use pesticide or by the state as restricted to use by certified applicators only. WSDA classifies aquatic herbicides as restricted use pesticides.

Littoral zone: The vegetated area from the waterbody's edge to the maximum water depth where plant growth occurs. The littoral zone varies between waterbodies depending on bathometry, water clarity, water quality, and other environmental conditions.

Lot: A parcel of land having fixed boundaries.

Management: the control or eradication of aquatic plants.

Marker dyes: Colorants that are sprayed onto the targeted weed along with the herbicide. Marker dyes allow better targeting of herbicide sprays since treated and untreated areas are more clearly seen by the applicator.

Municipal or community drinking water intakes: A drinking water intake that supplies water to a city, town, or a community.

Notice of Intent: An application to obtain coverage under an NPDES permit.

Noxious Weed: Means a plant that when established is highly destructive, competitive, or difficult to control by cultural or chemical practices (RCW 17.10.010(1)). The Washington State Noxious Weed Control Board maintains the list of noxious weeds in WAC 16-750-005, 16-750-011, and 16-750-015. Noxious weeds may also include: Plants listed on the quarantine list as identified in chapter 16-752-610 WAC. Non-native and potentially invasive plants not listed on the above lists, as determined by the Washington State Noxious Weed Control Board, the Washington State Department of Agriculture (WSDA), or the Washington State Department of Ecology (Ecology).

Occasionally: No more than a few times (1-3) per treatment season and only for unforeseen events (e.g., disruption with product deliveries or severe adverse weather conditions).

Parameter: Water quality constituent being measured (analyte). A physical, chemical, or biological property whose values determine environmental characteristics or behavior.

Penoxsulam: 2-(2,2-difluoroethoxy)--6-(trifluoromethyl-N-(5,8-dimethoxy[1,2,4] triazolo[1,5-c]pyrimidin- 2-yl)) benzenesulfonamide.

Permittee: The licensed applicator or government entities that have obtained coverage under the permit. For phosphorus control projects, the Permittee may be the discharger that most closely resembles a licensed applicator.

Peroxyacetic Acid/Peracetic Acid (PAA): CH_3CO_3H

Pesticide: WAC 15.58.030 (31) "Pesticide" means, but is not limited to:

a) Any substance or mixture of substances intended to prevent, destroy, control, repel, or mitigate any insect, rodent, snail, slug, fungus, weed, and any other form of plant or animal life or virus, except virus on or in a living person or other animal which is normally considered to be a pest or which the director may declare to be a pest;

b) Any substance or mixture of substances intended to be used as a plant regulator, defoliant or desiccant; and

c) Any spray adjuvant.

pH: A measure of the acidity or alkalinity of water. A low pH value (0 to 7) indicates that an acidic condition is present, while a high pH value (7 to 14) indicates a basic or alkaline condition. A pH of 7 is considered neutral. Since the pH scale is logarithmic, a water sample with a pH of 8 is ten times more basic than one with a pH of 7.

Phosphorus control products: Products used to inactivate nutrients in the sediments such as aluminum sulfate or sodium aluminate (alum) and calcium hydroxide.

Private property: Any property owned by a single person or multiple persons or business that provides no public access to a waterbody.

Priority habitats and species: Habitats and species that WDFW considers priorities for conservation and management in Washington. Priority species require protective measures for their survival due to their population status, sensitivity to habitat alternation, and/or recreational, commercial or tribal importance. Priority habitats are habitat types or elements with unique or significant value to a diverse assemblage of species.

Privately or publicly-owned shoreline: Any shoreline area **without public access**, owned by an individual, business, or a public entity.

Product label: The label for pesticides, adjuvants and other products authorized for use under this permit. All pesticides must be registered by WSDA prior to use in Washington state.

Public access: Identified legal passage to any of the public waters of the State, assuring that members of the public have access to and use of public waters for recreational purposes. Public access areas include public- or community-provided swimming beaches, picnic areas, docks, marinas, and boat launches at state or local parks and private resorts.

Public access areas: These areas include public- or community-provided swimming beaches, picnic areas, docks, marinas, and boat launches at state or local parks and private resorts.

Public boat launch: A public- or community-provided location on a waterbody that is designated for the purpose of launching or placing a boat in the water, usually for recreational purposes. Boat launches also include sites used as put-ins and take-outs for small watercraft such as canoes or kayaks.

Public entrance: A location where people typically access a public pathway.

Public pathway: A trail along a waterbody that allows access to the waterbody by the public.

Public Water System: Any system providing water for human consumption through pipes or other constructed conveyances, excluding a system serving only one single-family residence and a system with four or fewer connections all of which serve residences on the same farm. (Chapter 246-290-020(1) WAC)

Purveyor: An agency, subdivision of the state, municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or person or other entity owning or operating a public water system. Purveyor also means the authorized agents of these entities. (Chapter 246-290-010(204) WAC)

Quarantine-listed weeds: Plants listed on the WSDA Quarantine list as identified in chapter 16.750 WAC.

Reasonable public access: Identified legal passage to any of the public waters of the State, or areas where it is apparent that the public have been accessing the water (well-worn pathways or other indications of recent human usage of the site).

Recreation: Water skiing, boating, swimming, wading, fishing, and other such water-related activities.

Right-of-way: A strip of land that is granted, through an easement or other mechanism, for transportation or other typically public uses. Right of way locations may include roadsides and/or highways, railroads, power lines and irrigation ditches.

Same time of day: The same two-hour time window for pre- and post-treatment monitoring on any given day (applies to pH and dissolved oxygen monitoring).

Selective herbicide: An herbicide that kills or affects specific plant species, sparing other less-susceptible species. Selectivity occurs through different types of toxic action or by the manner in which the material is used (its formulation, dosage, timing, placement, etc.).

Sensitive, threatened, or endangered plants:

Sensitive: Any species that is vulnerable or declining and could become endangered or threatened in the state without active management or removal of threats.

Threatened: Any species likely to become endangered in Washington within the foreseeable future if factors contributing to its population decline or habitat degradation or loss continue.

Endangered: Any species in danger of becoming extinct or extirpated from Washington within the foreseeable future if factors contributing to its decline continue. Populations of these species are at critically low levels or their habitats have been degraded or depleted to a significant degree.

Shading products: These compounds are usually non-toxic dyes and are designed to reduce the amount of light penetrating the surface of a waterbody, thereby reducing plant and algae growth.

Shoreline: The area where water and land meet.

Shoreline Recreational Facilities: Means facilities located along a waterbody that provide water contact activities as part of an organized camp (e.g. children's camp through YMCA or other organization) and facilities where water contact activities are expected such as marinas, resorts, parks or other facilities actively managed for water contact recreation.

Significant Contributor of Pollutant(s): a facility or activity determined by Ecology to be a contributor of a significant amount of a pollutant that has a reasonable potential to cause a violation of surface or ground water quality standards or sediment management standards.

Sodium Aluminate: $NaAlO_2$, or $NaAl(OH)_4$ (hydrated)

Sodium carbonate peroxyhydrate: $2\ Na_2CO_3 - 3\ H_2O_2$.

Sponsor: A private or public entity or a private individual with a vested or financial interest in the treatment. Typically, the sponsor contracts with a licensed applicator to apply pesticides for aquatic plant or algae management. A sponsor is an individual or an entity that has authority to administer common areas of the waterbody or locations within the waterbody for the purposes of aquatic plant and algae management. Entities with this authority include Lake Management Districts formed under chapter 36.61 RCW, Special Purpose Districts formed under Title 57 RCW or Title 85 RCW, Homeowners Associations formed under chapter 64.38 RCW, and groups operating under the provisions of chapter 90.24 RCW. There may be other entities with the authority to manage common areas in public or private waterbodies. For treatment on individual lots, the sponsor must have the authority to contract for aquatic plant and algae management within the lot boundaries.

Stratification: The process where lakes form distinct thermal layers due to variations in temperature and density. This phenomenon occurs primarily during warm weather, as warmer water becomes less dense and floats on top of cooler, denser water. Typically stratified lakes show three distinct layers: the epilimnion, comprising the top warm layer; the thermocline; and the colder hypolimnion, extending to the bottom of the lake.

Stratification affects the distribution of oxygen levels, nutrients and aquatic life within the lake. It can change seasonally, with the layers mixing during some times of the year.

Submersed plants: Underwater. Submersed plants generally always remain under water, although many submersed species produce above-water flowers (e.g., pondweeds, milfoil).

Surface waters of the State of Washington: All waters defined as "waters of the United States" in 40 CFR 122.2 within the geographic boundaries of the state of Washington. All waters defined in RCW 90.48.020. This includes lakes, rivers, ponds, streams, inland waters, and all other fresh or brackish surface waters and water courses within the jurisdiction of the state of Washington. Also includes drainages to surface waters.

Swimming advisory: Information required to be posted on all public signs advising people not to swim in the treated area for a number of hours after treatment. An advisory is a recommendation rather than a restriction.

Swimming restriction: Information required to be posted on all public signs stating that no swimming must occur in the treatment area for a number of hours after treatment.

Systemic herbicide: A chemical that moves (translocates) throughout the plant and kills both the roots and the top part of the plant. Systemic herbicides are generally slower-acting than contact herbicides, but tend to result in permanent removal of the targeted plants.

Thermocline: The transition zone in lakes between the overlying Epilimnion and the underlying Hypolimnion, defined as that middle region of a thermally stratified lake or reservoir in which there is a rapid decrease in temperature with water depth. Typically, the temperature decrease reaches 1°C or more for each meter of descent (or equivalent to 0.55°F per foot)

Topramezone: [3-(4,5-dihydro-isoxazol-3-yl)-4-methylsulfonyl-2-methylphenyl] (5- hydroxy-1-methyl-1H-pyrazol- 4-yl) methanone.

Tracer Dyes: Liquid or powdered dyes, usually fluorescent, added to another liquid or water to analyze the flow. Marker and tracer dyes are generally considered nontoxic, and make no pesticidal or pest control claims, therefore such dyes are not registered as pesticides by EPA or by WSDA.

Treatment: The application of an aquatic herbicide, algaecide, or control product to the water or directly to vegetation to control vegetation, algae, or remove or inactivate phosphorus.

Treated area: The area where pesticide is applied and where the concentration of the pesticide is sufficient to cause the intended effect on aquatic plants or algae.

Triclopyr TEA: Triethylamine salt of 3,5,6-trichloro-2-pyridyloxyacetic acid.

Trust or Restricted Lands: Means as defined in 25 USC 2201(4): "(i) *''trust or restricted lands*'' means lands, title to which is held by the United States in trust for an Indian tribe or individual, or which is held by an Indian tribe or individual subject to a restriction by the United States against alienation; and (ii*) ''trust or restricted interest in land''* or ''*trust or restricted interest in a parcel of land''* means an interest in land, the title to which interest is

held in trust by the United States for an Indian tribe or individual, or which is held by an Indian tribe or individual subject to a restriction by the United States against alienation."

Washington Pesticide Control Act: Chapter 15.58 RCW.

Water right: A water right is a legal authorization to use a predefined quantity of public water for a designated use. The purpose must qualify as a beneficial use such as irrigation, domestic water supply, etc. Any use of surface water which began after the state water code was enacted in 1917 requires a water-right permit or certificate.

Waters of the State: includes lakes, rivers, ponds, streams, wetlands, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington (Chapter 90.48 RCW).

Wetland: Any area inundated with water sometime during the growing season, and identified as a wetland by a local, state, or federal agency.

In the absence of other definitions set forth herein, the definitions set forth in 40 CFR Part 403.3 or in chapter 90.48 RCW apply.

APPENDIX B – ECOLOGY NOTIFICATION TEMPLATES

See Special Condition S5.A for instructions on providing notification to Ecology.

Email Form

Email to: apampreposttreat@ecy.wa.gov

From: **Permittee or Applicator:** (name)

Cell Phone No: (contact number for the applicator)

Pre-Treatment Notification

Week of Treatment:

Waterbody Name	Permit Number	County	Location where treatment will begin	Chemicals/products proposed for use	Targeted plants & algae	Proposed date & treatment start time

Additional Information: _____

(Additional information may include whether any required notifications due to drinking water intakes or fish hatcheries were completed)

Post-Treatment Notification

Week of Treatment:

Waterbody name	Permit Number	County	Chemicals or products used	Targeted plants/ algae	Acres treated	Amount of active ingredient applied (lbs.)	Treatment date

Additional Information: _____

Knowingly submitting false information will result in permit termination.

Permittee may add additional rows if needed

APPENDIX C – FLURIDONE VEGETATION MANAGEMENT PLAN

The following elements are minimum requirements for a Fluridone Vegetation Management Plan. The applicant must prepare a Fluridone Vegetation Management Plan and submit it to Ecology for review and approval prior to conducting fluridone treatments of more than:

- 50 percent of the littoral zone in lakes up to 50 acres or
- 40 percent of the littoral zone in lakes from 50 - 500 acres.

Elements from other documents such as Integrated Aquatic Vegetation Management Plans may substitute for equivalent elements of the Fluridone Vegetation Management Plan.

The Permittee must submit a signed and dated plan to Ecology when applying for or updating a permit coverage (Special Condition S2.B.1.a). The plan can be submitted through Ecology's online Water Quality Permitting Portal (WQWebPortal), or mailed as a print copy.

The applicant/Permittee must develop its Fluridone Vegetation Management Plan jointly with the sponsor.

I. WATERBODY INFORMATION

1. Names and locations of any inlets and outlets and impacts of those inlets and outlets on fluridone treatment.

2. List the aquatic plant species (species or common names) in the waterbody (submersed, floating, and floating-leaved plants) and along the shorelines (emergent plants):

   Ecology's aquatic plant database:
   https://fortress.wa.gov/ecy/coastalatlas/tools/LakeDetail.aspx

   Ecology's freshwater plant identification manual:
   https://fortress.wa.gov/ecy/gisresources/lakes/AquaticPlantGuide/index.html

3. List any sensitive, threatened, or endangered aquatic plant species in the waterbody or along the shoreline.

   Attach a recent map of their locations.

   Washington Department of Natural Resources (DNR) rare plant information:
   http://www1.dnr.wa.gov/nhp/refdesk/plants.html or contact Ecology's permit manager for this information.

4. List any sensitive habitats or wetlands associated with the waterbody. Attach a recent map of these areas.

   DNR's information about high quality/rare ecological communities: https://www.dnr.wa.gov/NHPspecies.

5. Are any of the fish species using the waterbody and associated tributaries sensitive, threatened, or endangered? If present, at what time of year are they in the waterbody?

6. List any sensitive, threatened, or endangered aquatic animals (excluding fish) using the waterbody:

   WDFW Priority Habitats and Species https://wdfw.wa.gov/species-habitats/at-risk/phs

7. Are there any sensitive waterfowl and bird species (common names) or 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=34533b2dd4f84932b5fd1a46e494 bde6.

II. PROBLEM DESCRIPTION AND STATEMENT

1. Describe the target noxious weed species, growth types (e.g. emergent, submersed, etc.), locations, and density in the waterbody.

2. Describe any unique characteristics about the noxious weed species that may help determine the most appropriate management methods and timing.

3. Attach a map that includes the approximate location and species of the target noxious weed species in the waterbody:

   Ecology's survey methods for aquatic plant mapping: https://fortress.wa.gov/ecy/publications/SummaryPages/9003001.html

4. Identify and discuss possible factors that are causing or contributing to noxious weed growth (e.g., nutrients, invasive species, etc.).

5. Describe why whole lake Fluridone treatment(s) is the appropriate method for eradicating the target noxious weed species from this waterbody.

6. If a sensitive, threatened, or endangered species or 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?

III. SURVEILLANCE

1. Describe your surveillance plan for evaluating the treatment areas to determine when treatment or re-treatment is appropriate.
2. Describe how you will evaluate (monitor) treatment effectiveness and explain your criteria for determining treatment efficacy.
3. Describe how you will monitor for any adverse impacts caused by treatment.

IV. OUTCOMES AND RESPONSES

1. Describe how you will respond, including specific actions you will take, to any detection of non-target impacts from whole lake treatment with Fluridone.
2. If non-target impacts to sensitive, threatened, or endangered species or habitat are detected, describe how your will respond and the specific actions you will take.
3. Describe the desired outcome of whole lake noxious weed treatment with Fluridone.

V. SIGNATURE REQUIREMENTS

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of those persons directly responsible for gathering information, the information in the Fluridone Vegetation Management Plan is, to the best of my knowledge and belief, true, accurate, and complete and will be updated as necessary. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

_____ _____

Signature of Permittee Date

I certify under penalty of law, that I have reviewed this document and all attachments, and that the sponsor concurs with the information contained in the Fluridone Vegetation Management Plan. The information in the Fluridone Vegetation Management Plan is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

_____ _____

Signature of Sponsor's Representative Date

* Federal regulations require this document to be signed in accordance with Condition G1.

APPENDIX D – EXPERIMENTAL USE PLAN TEMPLATE

Experimental Phosphorus Control Product Plan (EPCPP)

Use this template to develop an experimental use plan for phosphorus control products (PCP) under the Aquatic Plant and Algae Management General Permit. This template is not intended for experimental use plans for non-PCP pesticides.

Problem Statement:

Identify the need for the use of an experimental phosphorus control product (PCP).

Description of PCP Performance:

Describe the benefits the experimental PCP may have over an existing PCP, and in what circumstances these benefits may be present or absent. Describe the circumstances in which the experimental PCP may not perform as desired and the reasons why this could occur.

Proposed PCP Chemistry:

Chemistry of the PCP, including all chemical components that make up the experimental PCP and any required buffering agents.

Water Body Impacts:

Identification of potential effects on the waterbody and water quality parameters (e.g pH), such as the need for buffering.

Aquatic Organism Impacts:

Identification of potential effects on aquatic organisms from the use of the experimental PCP.

Project Objectives and Hypothesized Results:

Describe the objectives of this experimental use treatment and the expected results.

Techniques and Equipment:

A description of the application techniques, equipment, and procedural steps that will be used for application of the experimental PCP.

Calculations:

Calculations showing how the Permittees will determine the actual amount of experimental PCP that will be applied during treatment. These calculations must also include any assumptions that may be used, the reasons why those assumptions were made, and the source of the data used to make the assumptions.

Monitoring Plan:

Details of monitoring that will occur prior to, during, and after, treatment with the experimental PCP. Monitoring performed as part of an experimental PCP application must comply with Special Condition S6 (analysis methods must conform the latest revision of 40 CFR §136, 40 CFR §400-471, or 40 CFR §501-503, unless otherwise specified in this permit). Monitoring parameters must include, at a minimum, soluble (water column) phosphorus and any parameters identified in the experimental phosphorus control product plan (EPCPP) that may be affected by treatment with the experimental PCP.

Proposed Schedule

A schedule for proposed treatment, monitoring, and reporting.

Reporting

Reporting for EPCPP must include:

1. Pounds of product used
2. Acreage treated
3. Pre-treatment phosphorus concentrations
4. Post-treatment phosphorus concentrations
5. Results of any water quality parameter monitoring required as part of the EPCPP for parameters that may be affected by the experimental PCP.
6. Laboratory analysis records, which must include analysis method and units of measure.
7. Any observed, or measured, impacts or stress to aquatic organisms or wildlife.
8. Description of whether the project objectives were achieved.

Bibliography

A bibliography containing citations to the references of currently available scientific journal articles or other sources of information used in developing the experimental PCP and EPCPP.

Signatures

"*I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations*."

X_____
Decision-maker

X_____
Applicator

* Federal regulations require this document to be signed in accordance with Condition G1.