

Issuance Date: XXXX XX, 20XX
Effective Date: XXXX XX, 20XX
Expiration Date: XXXX XX, 20XX

DRAFT AQUATIC PLANT AND ALGAE MANAGEMENT GENERAL PERMIT

A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE GENERAL PERMIT

State of Washington
Department of Ecology
Olympia, Washington

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

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

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Water Quality Program Manager
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORT SUBMITTALS

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

Table 1. Required Permit Submittals

Permit Section	Submittal	Frequency	Due Date(s)
S2	Application for New Coverage	As necessary	At least 38 days prior to the start of discharge
S2.D	Request for Modification	As necessary	As necessary
S4.D	Request for Modified Timing Window	As necessary, up to once per calendar year	Discharge may occur no sooner than 38 days after Ecology's approval of a modified timing window
S2.E	Request for Transfer of Coverage	As necessary	As necessary
S3.F & S9	Plant Survey and Mitigation Measures	As necessary	As necessary
S5.A	Ecology Pre-and Post-Treatment Notice	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	As necessary	No later than one business day following notification
S6.A	Dissolved Oxygen Data from 303(d)-Listed Water Bodies for Dissolved Oxygen When Using Contact Herbicides	As necessary	Within 30 days for the post-treatment monitoring date
S7.A	Annual Monitoring Report	Annually	December 31
S7.D	Noncompliance Notification	As necessary	As necessary
G22	Re-Application for Permit Coverage	Once per permit cycle	At least 180 days prior to the permit expiration date

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

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

The Aquatic Plant and Algae Management General 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, algacides, adjuvants, marker dyes, shading products, biological water clarifiers**, and **phosphorus sequestration 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: Noxious Weed **Management**, Native Nuisance Plant Control, **Algae Control**, and phosphorus sequestration. The permit has different requirements for each category.

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 not covered under (a) if the Permittee conducts weed control using a **selective herbicide**. If a selective herbicide is not available for the noxious weed being controlled, 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.

2. Aquatic Nuisance Plant Control

The Permittee may intentionally apply chemicals to:

- 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.
- b. 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.

- c. All untreated littoral areas must include native vegetation from the shore to the edge of the littoral zone where the plants stop growing in deeper water.
3. The cumulative percentage of the littoral zone where herbicides¹ may be intentionally applied must not exceed the amount allowed below:
 - a. In waterbodies up to 15 acres in size, the Permittee may intentionally apply herbicides to no more than 75 percent of the littoral zone.
 - b. 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.
 - c. 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.
 - d. In waterbodies over 500 acres in size, the Permittee may intentionally apply herbicides to no more than 30 percent of the littoral zone.
4. **Individual lot** aquatic nuisance plant control
 - a. 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 can extend up to 50 feet from the shore.
 - b. No more than 40 percent of emergent shoreline plants on individual lots for individual treatments.
5. 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.
6. 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.c.
 - b. The Permittee may intentionally apply algaecides to the entire waterbody or sections of the waterbody, as needed, when *cyanobacteria* or other potentially toxic or environmentally harmful algae species are in the waterbody.
7. Phosphorus Sequestration

The Permittee may intentionally apply the phosphorus sequestration products and buffering agents listed in Special Condition S4.D, Table 4: *Approved Phosphorus*

¹ Different littoral zone limitations apply to the herbicide fluridone. See Treatment Limitations in Table 3.

Sequestration Products to the entire waterbody or sections of the waterbody in accordance with permit sections S4.D, Table 4 and S6.B. Limited use of other phosphorus sequestration 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. Federal lands where a federal agency provided funding, made the decision to apply chemicals, or is the entity applying chemicals.
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 chemicals 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?slid=6633>):

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.

Note: Facilities operating without coverage under this General Permit (for example, those exempt according to the conditions in S1, must 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. Applicators must obtain separate permit coverage for each waterbody that they plan to treat. Each coverage requires a **sponsor**. 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 or multiple permit coverages, applicators must obtain separate permit coverages for each location within the waterbody (e.g., Lake Washington).
2. Dischargers are not required to be licensed pesticide applicator to apply phosphorus sequestration chemicals, because phosphorus sequestration products are not registered pesticides, EPA and WSDA do not regulate their use. For these projects, the discharger may apply for permit coverage. **Applicants** must have a sponsor for each phosphorus sequestration coverage.
3. Any state or local government entity may apply for coverage.
 - a. Government entities may obtain a single coverage that includes multiple waterbodies under its jurisdiction. Government entities are considered sponsors.
 - b. Government entities must keep Ecology updated with a current list of its applicators, including license numbers and license expiration dates.

B. How to Apply for Coverage

Applicants that propose to begin aquatic plant or algae management activities that will result in a discharge to waters of the State on or after the effective date of this permit must:

1. Complete the **Notice of Intent** (NOI) for the proposed activity online. The applicant must access Ecology's online data management system *SecureAccess Washington* (<http://secureaccess.wa.gov>), fill out the NOI online, print it, and sign it. Applicants must ensure that their sponsor(s) also sign the document.
 - a. The Permittee must submit a signed and dated Fluridone Vegetation Management Plan (Appendix C) to Ecology when applying for or updating a permit coverage that includes fluridone treatment 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.

- b. The Permittee must submit a map of the permit coverage area showing where pesticides may be applied (for example, a map of the entity's jurisdiction).
2. If the product label has potable water use restrictions and the treatment occurs in waterbodies with ***municipal or community drinking water intakes***, the applicant must obtain and submit written consent to the treatment from the municipality or community.
3. Mail the complete NOI to:

Department of Ecology
Water Quality Program
Attn: Aquatic Pesticide Permit Manager
P.O. Box 47600
Olympia, WA 98504-7600
4. 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.
5. 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.
6. Mail or deliver the public notice to the Washington State Department of Natural Resources (DNR) at dnrreais@dnr.wa.gov.
7. 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 Nancy.Rapin@muckleshoot.nsn.us. In the event that the email contacts become 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.

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 can be 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 revise and re-submit permit application materials in accordance with Special Condition S2.B.

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 found here:
<https://fortress.wa.gov/ecy/publications/SummaryPages/ECY070348.html>.

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 found here:
<https://fortress.wa.gov/ecy/publications/SummaryPages/ECY100300.html>.

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 cancelled, the Permittee may no longer discharge to waters of the State unless it applies for, and gains coverage under this permit again.

S3. DISCHARGE LIMITS

A. Compliance with Standards

1. The application of pesticides must not cause or contribute to a violation of the Water Quality Standards for Surface Waters of the State of Washington (chapter 173-201A WAC),

Ground Water Quality Standards (chapter 173-200 WAC), Sediment Management Standards (chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CRF 131.36). Ecology prohibits discharges that do not comply with these standards.

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

B. Temporary Exceedance of Water Quality Standards

Short and long-term exceedance of water quality standards are allowed under this permit provided the Permittees comply with the provisions of WAC 173-201A-410.

C. Application Requirements

The Permittee must comply with the FIFRA label when using pesticides. Permit requirements do not reduce the requirements on the FIFRA 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.
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 sequestration products are not labeled as pesticides by FIFRA and dischargers are not required to be licensed pesticide applicators.

D. Impaired Water Bodies

1. The Permittee must not cause further impairment of any **303(d)-listed** waterbody for any listed parameter.
2. The Permittee must prevent further impairment of waterbodies listed on the 303(d) list for dissolved oxygen as a result of treatment. They may do so by choosing appropriate chemicals such as a **systemic herbicide** instead of a **contact herbicide** and must implement one or more of the following mitigation measures:
 - a. Do not treat in the summer or when water temperatures are warm enough to contribute to low dissolved oxygen concentrations after treatment.
 - b. Limit the area treated each time that treatment occurs.
 - c. Remove decaying plants following treatment.
 - d. Aerate the water following treatments.

3. The Permittee must prevent further impairment of waterbodies listed on the 303(d) list for phosphorus as a result of treatment. They may do so by choosing appropriate chemicals to minimize 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 **floating plant**, such as duckweed or for algae blooms ensure that a healthy population of native emergent, submersed, or floating-leaved plants remain in the waterbody after treatment.
 - b. Time treatment so that plant nutrients are not released during summer months.
 - c. Limit the area treated at any one time.
 - d. Remove decaying plants following treatment.

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 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 injury to **private property** or any invasion of personal rights.
2. The Permittee may apply the adjuvants listed in Appendix E and the active ingredients listed in Table 2 that are labeled for aquatic use, phosphorus sequestration products, shading products, and approved buffering agents listed in Table 4, water clarification products (including bacterial products) listed in Table 5.
3. Algae treatments are subject to additional requirements to prevent dissolved oxygen depletion. See Special Condition S4.D.6 for more information.

4. The Permittee must comply with the specific restrictions/limitations listed in Tables 2-4.

C.Experimental Use

Pesticides

1. 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).
 - a. 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).
 - b. 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 (Special Condition S1.C.6) where the applicator and decision maker operates under a State EUP.

Phosphorous Sequestration Products

2. The Permittees may discharge phosphorus sequestration products (PSP) 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 Sequestration Product Use Plan (EPSPP) that is available for public comment and approved by Ecology. Components of PSP may not be registered pesticides or adjuvants if use as part of a PSP does not comply with product label requirements.
3. No algaecide treatment 14 days prior to use of experimental PSP unless treatment is necessary for experimental PSP to work and reasons are detailed in the EPSPP.
4. Experimental Phosphorus Sequestration Product Use Plan
 - a. Existing EPSPP 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, incorporating the requirements of Special Condition S4.D.4.b to Ecology for approval.
 - b. Plan Development

Permittees **must** use the experimental use plan template provided in this permit. See Appendix D for the experimental use plan template.
 - c. Plan Submittal

The applicants must submit the draft EPSPP to Ecology for review prior to the second public notice publication date. Applicants must submit the draft EPSPP to:

Department of Ecology
Water Quality Program
Attn: Aquatic Pesticide Permit Manager

P.O. Box 47600
Olympia, WA 98504-7600

d. Plan Public Notice and Comment

The applicants for an EPSPP 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 EPSPP until at least 31 days after the date of the second public notice.

e. Publish Public Notice

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

f. Plan Approval

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

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

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

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. The response to comments document as well as Ecology's final decision on whether to approve the EPSPP will be provided to all commenters who include contact information with their comments.

Public Notice Template

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 sequestration, 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 to 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 sequestration.*

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 47600, Olympia, WA 98504-7600

D. General Application Restrictions

1. Treatments are prohibited with pesticides that have water use restrictions on the FIFRA label that restrict public water use 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.
2. Permittees must minimize treatments that restrict public water use during weekends.
3. Treatment Timing Windows

Permittees **must** consult the WDFW timing windows prior to conducting any treatments. The Permittees must comply with WDFW timing windows 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=34533b2dd4f84932b5fd1a46e494bde6>.

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 table, they must provide Ecology with a consultation letter or email from WDFW indicating the guidance and 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 do not apply to:

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

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. Requests may be approved, conditionally approved, or denied on an annual basis.

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. New permit applicants may request a modified treatment timing window at the time of permit application. 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.4, 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 during the lifetime of the permit 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 procedures for permit modification specified in Special Condition S2.B. 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.

5. Providing Replacement Water

Permittees are required to provide, as detailed below, an alternative or replacement water source when treatment will affect potable water, irrigation water, or livestock watering, uses.

- a. The Permittees must notify individuals who withdraw potable 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 must be made 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 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. be able to 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 will be provided.

6. Algae Treatment Restrictions

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

- i. Permittees must take at minimum one dissolved oxygen measurement approximately 24 hours prior to the planned algae treatment. Multiple dissolved oxygen measurements may be taken at the same time of day as the planned treatment to determine an average dissolved oxygen level for the waterbody.
 - ii. Permittees must measure dissolved oxygen after the algaecide treatment is complete and the after effects 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 phosphorous sequestration products in the algae treatment.
 - ii. The Permittee may treat up to one third of the lake each week with algaecide.

Table 2: Specific Restrictions on the Application of Herbicides and Algaecides for Control Projects

Active Ingredient ¹	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
2, 4 - D (amine)²	Yes for salmon, steelhead, bull trout – check timing table 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 FIFRA product label for water use restrictions
2, 4 - D (ester)²	See other specific restrictions – Yes for salmon, steelhead, bull trout – check timing table 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 table for other priority species.	48-hour re-entry restriction post-treatment (in the treated area)	Do not apply: <ul style="list-style-type: none"> ➤ To emergent or shoreline vegetation along undeveloped areas of surface waterbodies. ➤ In habitats where native vegetation restoration is desired (e.g., mitigation sites, riparian areas, and natural corridors). 	If soil or dead plants in treated areas are being removed, consult the product label to determine appropriate soil and plant disposal methods.
Bispyribac-sodium	No for fish - check timing table for other priority species.	None	None	None
Carfentrazone-ethyl²	Yes for salmon, steelhead, bull trout –check timing table for other priority species	None	None	None
Diquat²	Yes for salmon, steelhead, bull trout –check timing table for other priority species	Swimming advisory during treatment, and for 24-hours post-treatment (in the treated area)	<ul style="list-style-type: none"> ➤ Do not pour Diquat directly from the container into the waterbody. ➤ Do not apply to emergent shoreline vegetation (e.g., cattails, bulrush) 	Consult FIFRA product label for water use restrictions.

Active Ingredient ¹	Subject to Timing	Restrictions/Advisories	Treatment Limitations	Other Specific Restrictions
<i>Endothall (dipotassium salt)</i> ²	Yes for salmon, steelhead, bull trout – check timing table 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 FIFRA product label for water use restrictions.
<i>Endothall (mono salt)</i> ²	Yes for salmon, steelhead, bull trout –check timing table for other priority species	Swimming advisory during and for 24-hours after treatment (in the entire waterbody)	<ul style="list-style-type: none"> ➤ 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 	<ul style="list-style-type: none"> ➤ Treatment must occur from the shoreline outward into the waterbody. ➤ Consult FIFRA product label for water use restrictions.
<i>Florpyrauxifen-benzyl</i>	No for fish - check timing table for other priority species.	None	None	None
<i>Flumioxazin</i> ²	Yes for salmon, steelhead, bull trout –check timing table for other priority species	None	None	None
<i>Fluridone</i>	No for fish - check timing table 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
<i>Glyphosate</i>	No for fish - check timing table for other priority species.	None	None	None
<i>Imazapyr</i>	No for fish - check timing table for other priority species.	None	None	None
<i>Imazamox</i>	No for fish - check timing table for other priority species.	None	None	None

Active Ingredient ¹	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
<i>Penoxsulam</i>	No for fish - check timing table for other priority species.	None	None	None
<i>Peroxyacetic / Peracetic Acid plus Hydrogen Peroxide</i>	No for fish - check timing table for other priority species.	None	Do not treat plants growing on the shore	None
<i>Sodium carbonate peroxyhydrate</i>	No for fish - check timing table for other priority species.	None	Do not treat plants growing on the shore	None
<i>Topramezone</i>	No for fish - check timing table for other priority species.	None	None	None
<i>Triclopyr TEA</i>	No for fish - check timing table for other priority species.	Swimming advisory during treatment, and for 12-hours post-treatment (in the treated area)	Aerial applications are not allowed	Consult FIFRA product label for water use restrictions.

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

Table 3: Specific Restrictions on Application of Products for Sequestration of Phosphorus

Phosphorus Sequestration Products	Subject to Timing	Restrictions/Advisories	Treatment Limitations	Other Specific Restrictions
Alum (Aluminum sulfate and Sodium Aluminate)	<ul style="list-style-type: none"> ➤ No for fish - check timing table for other priority species. ➤ Timing should address aquatic plant biomass that may interfere with inactivation of sediment phosphorus (requiring early spring or fall treatment). 	None	<ul style="list-style-type: none"> ➤ Application must cease when wind speed is greater than 15 miles per hour ➤ Powdered alum must be mixed with water to form a slurry before applying to the water surface. ➤ The pH of lake water during treatment must remain between 6.0 and 8.5 based on lake average. ➤ Only aluminum compounds suitable for water treatment may be used. ➤ Buffering materials must be available for use. 	<ul style="list-style-type: none"> ➤ A jar test must be completed prior to whole lake treatments only if a buffer other than sodium aluminate is used or a ratio of liquid alum to liquid sodium aluminate differs from 2:1 by volume. ➤ An on-site storage facility is required for any treatment requiring 9,000 gallons of alum or more, or the project proponent must have a plan to store any unused alum or buffering products. ➤ Follow the monitoring requirements in S6.B.
Calcium Products (Calcium Hydroxide/Oxide and Calcium Carbonate)	No for fish - check timing table for other priority species.	None	The pH must remain between 6.0 and 9.0.	<ul style="list-style-type: none"> ➤ A jar test must be completed prior to treatment to identify proper dosing levels. This jar 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.
Lanthanum-Modified Bentonite Clay	No for fish - check timing table for other priority species.	None	None	In waterbodies with low alkalinity (< 20 mg/L), a jar test must be completed prior to treatment to identify proper dosing levels.

Phosphorus Sequestration Products	Subject to Timing	Restrictions/ Advisories	Treatment Limitations	Other Specific Restrictions
Powdered Iron	No for fish - check timing table for other priority species.	None	<ul style="list-style-type: none"> ➤ Powdered iron must be applied to the water surface as a slurry. ➤ Do not apply where anoxic conditions (zero percent dissolved oxygen) may occur, including anoxic conditions created by applications of herbicide and algaecide. 	A jar test must be completed prior to treatment to identify proper dosing levels.
Shading products	No for fish - check timing table for other priority species	None	<ul style="list-style-type: none"> ➤ Do not apply directly to rivers or streams or any lake that discharges to other surface waters of the State. ➤ Do not apply to flowing water 	None

Note: The products listed above are not registered as pesticides through FIFRA. A licensed applicator is not needed for the application of any of these products to waters of the United States.

Table 4: Restrictions on Applications of Biological Water Clarifiers

Product	Restrictions
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 are in addition to the federal FIFRA 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 apampreposttreat@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 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.

2. Adverse incidents or spills

The Permittee must 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. The location and starting time for the scheduled inspection must be on record in writing at Ecology.
2. For scheduled inspections, the Permittee must not apply chemicals until Ecology staff is present, unless they do 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.
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, 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. 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 Nancy.Rapin@muckleshoot.nsn.us. In the event that the email contacts become out-of-date Ecology will provide updated contact information.
7. The Permittee must email to Ecology, at apampreposttreat@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 10-42 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 Shorelines

The Permittee must:

- a. Use templates provided on the permit 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.

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 sequestration 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 (Permit 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 signs at **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.

S6. MONITORING REQUIREMENTS

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. 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.
7. 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 sampling.
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.

A. Application of Herbicides and Algaecides

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.

1. Immediately before treating, the Permittee must monitor surface and bottom dissolved oxygen concentrations at a sampling location in the center and at the edge of the proposed treatment area(s). The Permittee must select at least one representative treatment area to monitor each time the waterbody is treated.
2. 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.
3. The Permittee must submit these data to the Ecology permit manager no later than 30 days after the post-treatment monitoring date.
4. See S4.C.6 for algaecide treatment guidance for non-impaired waterbodies.

B. Application of Phosphorus Sequestration Products

1. Aluminum sulfate or sodium aluminate (alum).
 - a. The monitoring requirement for whole or partial lake treatments is:
 - i. One surface water pH measurement in the morning prior to any alum addition and one surface water pH measurement one hour after alum addition has stopped for that day.
 - ii. The Permittee must monitor pH for the duration of the treatment and for 24 hours following treatment completion. The monitoring location must be representative of waterbody-wide conditions. If the pH decreases to less than 6.2, the Permittee must stop the treatment, analyze for alkalinity, and take immediate steps to increase the pH.
 - b. 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.

2. Calcium hydroxide/oxide or calcium carbonate treatment
 - a. The Permittee must measure pH once on the day before treatment, once in the morning prior to treatment and once in the afternoon after treatment has stopped for the day, for the duration of the 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.
 - b. 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.

S7. REPORTING AND RECORDKEEPING REQUIREMENTS

Ecology is making changes to its online permit application and annual reporting system and, when complete, may modify this permit to account for the changes.

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 data management system (SecureAccess Washington at <https://secureaccess.wa.gov>). A signed and dated copy of the report must be mailed to:

Department of Ecology
Water Quality Program
Attn: Aquatic Pesticide Permit Manager
P.O. Box 47600
Olympia, WA 98504-7600

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. The Permittee must submit any dissolved oxygen monitoring data to the Aquatic Pesticide Permit Manager and the appropriate regional contact, no later than 30 days after the post-treatment monitoring date.

B. Records Retention

1. The Permittee must retain records of all permitting and monitoring information for a minimum of five (5) years. 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:

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 (CRO) -----	509-575-2490
Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima counties	
Eastern (ERO) -----	509-329-3400
Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman counties	
Northwest (NWRO) -----	425-649-7000
Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom counties	
Southwest (SWRO) -----	360-407-6300
Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum counties	
Aquatic Pesticide Permit Manager -----	(360) 407-6600

- The Permittee must provide a written report to Ecology within five (5) days of the time that the Permittee becomes aware of any permit non-compliance unless Ecology requests and earlier submission. The report must contain a description of the noncompliance and its cause, the exact date(s), time(s), place(s), and duration(s) of the noncompliance, whether the noncompliance has been corrected and, if not, when the noncompliance will be corrected, and 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.

- The Permittee must submit noncompliance notifications to:

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.

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 be present in a proposed treatment area, the Permittee must conduct a detailed plant survey (unless Ecology waives this requirement).

1. The survey must be performed by a **botanist**. The person conducting the survey must not have a financial or personal interest in the treatment.
2. The botanist must survey when plants are present and can be positively identified, but no earlier than three months before treatment. Ecology may waive the three month requirement if the plant cannot be positively identified during that time frame.

3. The survey must cover 100% of the waterbody habitat that is identified as suitable for the rare plant of concern.
4. The Permittee must survey each year before treatment for rare submersed, floating, or floating-leaved plants and once every five years for rare emergent shoreline plants.
5. The Permittee must submit the survey data to Ecology no later than thirty days before treatment. Permittees must submit a map of the location of the rare plant(s) if the survey identifies rare plants. 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.

B. Mitigation

1. When a rare plant is not found, as a result of the plant survey, in the treatment area; the Permittee must use the lowest effective concentration of herbicide for the target plant and use a selective herbicide (if applicable) or an herbicide demonstrated to have little effect on the rare plant.
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. Monitoring the vitality of rare plant populations after treatment may be required by Ecology. The Permittee must not allow treatment to affect the viability of the rare plant population.
3. Mitigation measures for:
 - a. Submersed, floating, or floating-leaved plants: If the rare plant is submersed, floating, or floating-leaved and the herbicide application is intended to control submersed species, the Permittee must maintain a no-treatment buffer around the rare plants. The Permittee must maintain a 100-foot buffer when using contact herbicides and must 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, it must consult with Ecology for other options (e.g., physically relocating the plants).

In addition to the buffer, the Permittee must choose one or more mitigation measures below:

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

- iii. Use barriers or containment structures (e.g. silt curtains) to protect the rare plant.
 - iv. For floating rare plants, temporarily relocate the plants to an untreated area.
 - v. 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 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, 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 TEMPLATE**
- **APPENDIX C - FLURIDONE VEGETATION MANAGEMENT PLAN**
- **APPENDIX D – EXPERIMENTAL PHOSPHOROUS SEQUESTRATION PRODUCT PLAN (EPSPP)**
- **APPENDIX E – LISTED ADJUVANTS**

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to Ecology must be signed and certified.

- A. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - 1. 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
 - 2. 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.
- B. In the case of a partnership, by a general partner.
- C. In the case of sole proprietorship, by the proprietor.
- D. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- E. 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 a named individual or any individual occupying a named position.
- F. Changes to authorization. If an authorization under paragraph E 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.

- G. 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 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 permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the Permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating permit coverage during its term, or for denying a permit renewal application:
1. Violation of any permit term or condition.
 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 3. A material change in quantity or type of waste disposal.
 4. A determination that the permitted activity endangers human health or the environment or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR part 122.64(3)].

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR part 122.64(4)].
 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 7. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- B. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
1. A material change in the condition of the waters of the State.
 2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 6. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 7. Incorporation of an approved local pre-treatment program into a municipality's permit.
- C. The following are causes for modification or alternatively revocation and reissuance:
1. Cause exists for termination for reasons listed in A1 through A7, of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 2. Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

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 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, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with WAC 173-240. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. 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.

G7. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology. This permit is automatically transferred to a new owner or operator if:

- A. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology;
- B. A copy of the permit is provided to the new owner and;
- C. Ecology does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to section A. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by Ecology.

G8. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the

situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. 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.

G10. 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, revoking and reissuing, or terminating 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.

G11. OTHER REQUIREMENTS OF 40 CFR

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

G12. ADDITIONAL MONITORING

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

G13. 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.

G14. 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.

G15. 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.

G16. PROPERTY RIGHTS

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

G17. 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 termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. 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.

G19. 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.

G20. 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.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee shall 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, shall be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G22. 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 reapply for coverage are covered under the continued permit.

APPENDIX A – DEFINITIONS

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

303(d): 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.

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

Applicant: The licensed pesticide applicator or state or local government entity choosing to get coverage under this permit. For phosphorus sequestration 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) pyrazinedium.

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).

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.

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

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

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): A set of EPA regulations that establishes uniform pesticide product labeling, use restrictions, and review and labeling of new pesticides.

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-fluoro-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.

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-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid.

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

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, algacide, 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 bathymetry, 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).

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 sequestration projects, the Permittee may be the discharger that most closely resembles a licensed applicator.

Peroxyacetic Acid/Peracetic Acid (PAA): CH₃CO₃H

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.

Phosphorus sequestration 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.

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.

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.

Sodium carbonate peroxyhydrate: $2\text{Na}_2\text{CO}_3 \cdot 3\text{H}_2\text{O}_2$.

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, 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.

State experimental use permit: A permit issued by WSDA allowing use of pesticides that are not registered, or for experiments involving uses not allowed by the pesticide label. Aquatic applications are limited to one acre or less in size.

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 CRF 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.

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

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.

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 TEMPLATE

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:

Water body name & permit no.	County	Location where treatment will begin	Chemicals/products proposed for use	Targeted plants & algae	Proposed date & treatment start time

Additional Information: _____

Post-Treatment Notification

Week of Treatment:

Water body name & permit no.	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 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/coastalatlus/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=34533b2dd4f84932b5fd1a46e494bde6>.

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 you 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

APPENDIX D – EXPERIMENTAL USE PLAN TEMPLATE

Experimental Phosphorous Sequestration Product Plan (EPSPP)

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

Problem Statement:

Identify the need for the use of an experimental phosphorous sequestration product (PSP).

Description of PSP Performance:

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

Proposed PSP Chemistry:

Chemistry of the PSP, including all chemical components that make up the experimental PSP 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 PSP.

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 PSP.

Calculations:

Calculations showing how the Permittees will determine the actual amount of experimental PSP 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 PSP. Monitoring performed as part of an experimental PSP 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 phosphorous sequestration product plan (EPSPP) that may be affected by treatment with the experimental PSP.

Proposed Schedule

A schedule for proposed treatment, monitoring, and reporting.

Reporting

Reporting for EPSPP 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 EPSPP for parameters that may be affected by the experimental PSP.
- 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 PSP and EPSPP.

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

APPENDIX E – LISTED ADJUVANTS

Adjuvant (Trade Name)/State Registration Number			
800 Plus/37686-18005	Agri-Dex™/5905-50094	Antero-EA/2935-18001	Atmos™/1381-13006
Avor/9349-16011	Bond™/34704-04003	Brandt Magnify/48813-15003	Break-Thru SP 133/56630-15001
Breeze®/1381-13007	Bronc Max™/2935-03005	Bronc® Plus Dry/2935-12005	Bronc Plus Dry-EDT™/2935-03002
Choice Trio/34704-15003	Cide-Kick IIM®/999400/12001	Class Act NG™/1381-01004	Competitor™/2935-04001
Cut-Rate™/2935-06001	Cygnnet Plus™/105114-50001	Denali-EA™/2935-15006	DestinyHC™/1381-09002
Droplex™/1381-12001	Dyne-Amic™/5905-50071	Fast Break®/1381-50006	Forge/46661-15002
Fraction™/45989-06001	Glacier-EA/2935-16001	Hasten-EA™/2935-15003	Interlock™/1381-05004
Kinetic™/5905-11004	Level 7™/1381-05002	LI-700™/34704-04007	Liberate™/34704-04008
MSO Concentrate/34704-04009	MSO Concentrate with Leci-Tech/34704-07001	One-Ap XL™/45989-02001	Phase/34704-05007
Pro AMS Plus™/71058-50001	Rainier-EA™/2935-15001	Renegade-EA/ 2935-15002	Sphere 7/73127-10008
Spray-Rite™/7001-09003	Spreader 90/34704-05002	Superb HC™/1381-06003	Syl-Tac-EA™/2935-15004
Tactic™/34704-05008	Trail Blazer/91327-15009	Trapline Pro/86806-16003	Tronic™/45989-06003
Turbulence®/1381-13008	Winfield Solutions Inergy®/1381-13002	Yardage™/52467-13001	