

PERMIT NO: WAG-994000

Issuance Date: March 1, 2006

Effective Date: April 1, 2006

Expiration Date: April 1, 2011

AQUATIC PLANT AND ALGAE MANAGEMENT GENERAL PERMIT

**National Pollutant Discharge Elimination System (NPDES) and
State Waste Discharge General Permit**

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

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

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



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SUMMARY OF PERMIT REPORT SUBMITTALS

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

Permit Section	Submittal	Frequency	First Submittal Date
S1.D.	Plant survey and mitigation measures	As necessary	
S2.	Notification of Application	As necessary	November 30, 2006
S7.A	Annual Monitoring Report	Annually	
S7.	Noncompliance Notification	As necessary	
G1.	Notice of Change in Authorization	As necessary	
G4.	Notification of Change in covered activities	As necessary	
G5.	Engineering Report for Construction or Modification Activities	As necessary	
G7.	Transfer of coverage	As necessary	
G8.	Notice of Permit Transfer	As necessary	
G21.	Notice of Planned Changes	As necessary	
G22.	Reporting Anticipated Non-Compliance	As necessary	

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

This permit revokes and replaces the Aquatic Nuisance Plant and Algae Control general permit (WAG-994000) for any aquatic nuisance plant or algae management activities as specified in S1.A of this permit. The revocation and replacement is effective beginning on the effective date of this permit. This permit also covers the management of any **in-lake*** aquatic noxious or quarantine-list weeds previously covered by the Washington State Department of Agriculture (WSDA). The treatment of emergent noxious or quarantine-list vegetation along lake shorelines can occur under this permit or the Aquatic Noxious Weed Control NPDES General Permit. This permit does not replace the Aquatic Noxious Weed Control NPDES General Permit (WAG-993000) currently issued to WSDA.

A. Activities Covered Under This Permit

This general permit covers aquatic plant and algae management activities that discharge chemicals and other aquatic plant and algae control products into **surface waters of the state of Washington**. Products regulated under this permit include **herbicides, algaecides, adjuvants, marker dyes, barley straw, shading products, biological water clarifiers, and nutrient inactivation products**. In-lake and roadside/ditch bank **emergent vegetation** management activities are also included where chemicals may enter the water.

Aquatic plant and algae management activities are organized into three categories: **Eradication, Control**, and Nutrient Inactivation. The permit has different requirements for each category.

1. Eradication

Eradication projects in lakes target either established infestations or early infestations. The goal of eradication is the complete and permanent removal of the targeted species from the entire water body. Eradication shall be conducted in a manner that minimizes impacts to non-target species to the greatest extent possible. Impact on non-target plants is acceptable to the extent needed to control the target plants.

- a. An eradication project is **allowed** only for:
 - i. **Noxious weeds** as identified in Chapter 16-750 of the Washington Administrative Code (WAC) (web site address: http://www.nwcb.wa.gov/weed_list/weed_listhome.html);
 - ii. Plants listed on the Quarantine List as identified in Chapter 16-752 WAC (web site address: http://www.nwcb.wa.gov/weed_list/weed_listhome.html);

* Words in bold typeface are defined in Appendix A – Definitions and Acronyms.

- iii. Newly discovered **non-native** and **potentially invasive plants** not listed on the above lists, as determined by the Washington State Noxious Weed Control Board, WSDA Plant Protection Program, or the Washington State Department of Ecology (Ecology).
 - b. In-lake eradication projects target either **established infestations** or **early infestations** of submersed, floating, or floating-leaved species. Established infestations are defined as a water body infestation of more than 20 percent of the littoral zone. Early infestations are defined as infestations of 20 percent or less of the littoral zone.
2. Control

This permit regulates two general categories of control projects: aquatic plant control and algae control.

a. Aquatic plant control projects

Aquatic plant control means the partial removal of aquatic plants within a water body or along a shoreline to allow for the protection of **beneficial uses** of the water body. Impact on non-target plants is acceptable to the minimum extent needed to control the target plants.

- i. For lakes other than Lake Washington, Lake Sammamish, Lake Union (including Portage Bay), submersed or floating aquatic plant control is limited to:
 - 1. 100 percent of plants in **high use areas** except in **identified wetlands** (see S4);
 - 2. 100 percent of Class A noxious weeds and 100 percent of Class B designate noxious weeds in the areas where they are designated for control as identified in Chapter 16-750 WAC (<http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=16-750>)
 - 3. 100 percent of any noxious or quarantine-list weed (see S1.A.2.a.i.7 & 8) if the weed control is conducted using a **selective herbicide**.
 - 4. On individual lots, Permittees shall not **intentionally apply** pesticides to more than 10 feet on either side of a dock. For treatment that is not around a dock, the Permittee shall limit pesticide application to an area no more than 20 feet wide. The treatment area shall remain the same for the entire length of permit coverage.
 - 5. In all areas other than individual lots, the percentage of littoral zone treatment allowed is based on total littoral surface acres of the lake. The treatment area shall remain the same for the entire length of permit coverage. The percentage of littoral zone left untreated must be representative of the

littoral zone plant community, and start at the shoreline and extend outward to the edge of the littoral zone. The area must be equal in size all the way from the edge of the shoreline to the outer edge of the littoral zone.

- a. In lakes that are up to 15 acres in size, the Permittee shall limit treatment to 75 percent of the littoral zone.
 - b. In lakes that are between 16 and 50 acres in size, the Permittee shall limit treatment to 60 percent of the littoral zone.
 - c. In lakes that are between 51 and 500 acres in size, the Permittee shall limit treatment to 50 percent of the littoral zone.
 - d. In lakes over 500 acres in size, the Permittee shall limit treatment to 30 percent of the littoral zone.
6. **Native and non-native plants** (intentionally bolded for definition);
7. Noxious submersed or floating weeds (not targeted for lake wide eradication) as identified in Chapter 16-750 WAC
(<http://www.leg.wa.gov/WAC/index.cfm?fuseaction=chapterdigest&chapter=16-750>)
8. Submersed or floating plants on the quarantine list (not targeted for lake wide eradication) as identified in Chapter 16-752 WAC
(http://www.nwcb.wa.gov/weed_laws/16-752.pdf)
- ii. Floating-leaved and emergent noxious weed and quarantine listed weed control (includes Lake Washington, Lake Sammamish, and Lake Union/Portage Bay)

The Permittee may control 100 percent of the littoral area on a lot by lot basis for floating-leaved and emergent noxious weeds and floating-leaved and emergent quarantine weeds as identified in Chapters 16-750 and 16-752 WAC.
 - iii. Floating-leaved and emergent native plant control (includes Lake Washington, Lake Sammamish, and Lake Union/Portage Bay)

The Permittee may control floating-leaved and emergent native plants in 100 percent of:

 1. **Defined navigation channels and/or swim channels;**
 2. All high use areas (boat launches, swimming beaches, etc.)

The Permittee shall limit treatment to no more than 40 percent of the floating-leaved and emergent plants on individual lots.
 - iv. Roadside and ditch bank plant control

1. For roadside and ditch bank maintenance activities conducted by state and local agencies, the Permittee may treat 100 percent of the plants within the right of way to prevent operational and structural impacts to transportation facilities or ditch banks.
 2. The Permittee may treat no more than of 40 percent of roadsides and ditches on privately owned individual lots.
- v. Lake Washington/Lake Sammamish/Lake Union (including Portage Bay)
1. The Permittee may treat 100 percent of high use areas
 2. On individual lots, Permittees shall not intentionally apply pesticides to more than 10 feet on either side of a dock. For treatment that is not around a dock, the Permittee shall limit pesticide application to an area no more than 20 feet wide. The treatment area shall remain the same for the entire length of permit coverage.
 3. The Permittee may treat 100 percent of any noxious or quarantine-list weed (see S1.A.2.a.i.7 & 8) if the weed control is conducted using a **selective herbicide**.
 4. The Permittee may treat 100 percent of any Class A noxious weed.

b. Algae control projects

Algae control means the treatment of **filamentous algae**, **cyanobacteria**, or algal species that have the potential to affect human or environmental health.

- i. Filamentous algae - The Permittee may treat filamentous algae on a lake-wide basis so long as the area treated does not exceed the maximum amount of littoral zone allowed for treatment in S1.A.2.a.i.
- ii. Cyanobacteria (blue green algae) – The Permittee may treat cyanobacteria for the protection of human health and beneficial uses. Whole-lake treatments are allowed when potentially toxic algae species are identified in the water column.
- iii. **Phytoplankton** - The Permittee shall not treat other phytoplankton under this permit, except for algal species that have the potential to adversely affect human or environmental health.

c. Nutrient inactivation treatments

The Permittee may use alum (aluminum sulfate or sodium aluminate) and calcium hydroxide for the inactivation of phosphorus, either as partial water body or whole water body treatment.

B. Activities Excluded From Coverage Under This Permit

The following water bodies and activities are excluded from coverage under this permit:

1. Man-made detention or retention ponds designed specifically for wastewater or stormwater treatment that do not have an outlet to surface waters of the state, or ponds that will not discharge to other water bodies during and for two weeks following treatment.
2. Constructed detention ponds for wastewater or stormwater treatment or control covered by a separate individual or general NPDES or state permit.
3. **Upland farm ponds** with no discharge to other surface waters of the state during, and for two weeks following treatment.
4. Any **constructed water body** five acres or less in surface area with no discharge to other surface waters of the state during or for two weeks following treatment.
5. Aquatic plant management activities conducted on seasonally dry land surfaces (including seasonally dry wetlands) as long as the active ingredient is not biologically available when the water returns.
6. Any research activities when pesticides or adjuvants are being applied to lakes under a state experimental use permit (sites are less than one acre in size).

C. Geographic Area Covered

This general permit applies to the application of herbicides, algacides, adjuvants, marker dyes, barley straw, shading products, biological water clarifiers, and nutrient inactivation products for the control of native and non-native aquatic plants and algae, and the eradication of non-native floating, submersed, and lake shoreline emergent noxious aquatic plants throughout the state of Washington.

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

1. Ecology will determine whether **sensitive, threatened, or endangered** plants are present in the proposed treatment area by consulting the Department of Natural Resources (DNR) Washington State Natural Heritage Data System or by consulting with a **professional aquatic botanist** (that is independent of the planned herbicide treatment).
2. State agency applicants with access to Washington State Natural Heritage data or that employ a professional aquatic biologist may elect to provide Ecology with a map and/or written determination (based on a plant survey) that indicates whether sensitive, threatened, or endangered plants are present in the treatment area.
3. For early and established noxious or quarantine listed weed infestation eradication projects:

- a. If Ecology determines that a sensitive, threatened or endangered plant exists in a water body, Ecology shall consult with the Washington Natural Heritage Program on methods to minimize harm to rare plants.
 - b. Ecology may condition the permit coverage based on DNR's advice to minimize harm to the sensitive, threatened, or endangered plant from any herbicide treatment to remove noxious weeds.
4. For aquatic plant and algae control projects:
- a. If Ecology determines that sensitive, threatened or endangered plants are present in the proposed treatment area, the Permittee shall submit a detailed plant survey.
 - b. The Permittee shall contract with a professional aquatic botanist or wetland specialist (that is independent of the proposed herbicide treatment) to conduct the plant survey.
 - c. If the survey shows that sensitive, threatened or endangered plants are present in the proposed treatment area, the Permittee shall choose one or more mitigation measure as detailed in Section S12.

S2. PERMIT APPLICATION REQUIREMENTS

A. Who Applies for Coverage (Who is the Permittee)

1. The licensed pesticide applicator (WAC 16-228-1545) shall apply for coverage under this general permit. The applicator must be licensed in Washington State and have an aquatic endorsement (WAC 16-228-1545 3(t)).
2. A sponsor (i.e., government agency, homeowners association, etc.) may obtain joint permit coverage with their applicator. Licensed applicators are not required for certain types of projects (such as nutrient inactivation). In these instances, the person who most closely meets the definition of an applicator may apply for and obtain coverage.
3. A government agency that may be changing pesticide applicators during the life of this permit can choose to obtain sole coverage under the general permit. A list of licensed pesticide applicators, including their license numbers and expiration dates, must be submitted to Ecology prior to each treatment season.
4. Government entities that employ licensed pesticide applicators with aquatic endorsements on staff may apply for coverage. A list of licensed pesticide applicators, including their license numbers and expiration dates, must be submitted to Ecology prior to each treatment season.
5. **Camps** with swim beaches shall obtain joint coverage with their applicator under this permit if they sponsor a treatment to be performed during or within two weeks before the start of camp (see Notification Requirements in S6.C).

6. A sponsor may apply for coverage prior to hiring a licensed applicator, however Ecology will not issue coverage until the applicator has signed the application for coverage.

B. How to Apply for Coverage

1. The prospective Permittee shall apply for coverage at least 60 days prior to the planned management of aquatic plants or algae, or nutrient inactivation.
2. Application materials shall include:
 - a. An Ecology application form that is accurately completed (*Notice of Intent* [NOI]), and a State Environmental Policy Act (SEPA) checklist for the project. The SEPA checklist should be submitted to Ecology, the lead agency for in-lake aquatic plant and algae management projects, and Ecology will issue a SEPA determination prior to issuing permit coverage. Information about SEPA and the checklist can be found at: <http://www.ecy.wa.gov/programs/sea/sepa/e-review.html>
 - b. When the applicator is the sole Permittee, the sponsor shall sign and date the application for coverage, affirming that they have contracted with the applicator for the treatment of the water body.
 - c. Prior to beginning of the thirty day comment period, a copy of the public notice shall be submitted to Ecology, and shall include the date of the second publication.
 - d. Any additional relevant information requested by Ecology.

C. Public Notice Requirements

Applicants shall publish a public notice of the NPDES discharge permit application for coverage once per week for two consecutive weeks, at least seven days apart, in a local newspaper of general circulation. The public comment period of 30 days shall commence upon the date of the second publication. The applicant shall use the publication notice template provided in Appendix B. No modifications of this template are allowed.

D. Permit Coverage Timeline

1. The timeline for approval/denial of an application for coverage will not begin until a complete and accurate application has been received.
2. The NOI and SEPA checklist shall be submitted on or before the first public notice (See Condition S2.C above.). The thirty day public comment period required by WAC 173-226-130(5) begins on the publication date of the second public notice. Unless notified otherwise by Ecology, coverage under the general permit will automatically commence on the sixtieth day following receipt by Ecology of a completed NOI.

3. Ecology will review all public comments prior to making a determination on whether to grant permit coverage. This determination will only consider whether the applicant meets the requirements for coverage.
4. Ecology will submit the final decision to the applicant in writing. If the application for coverage/modification of coverage is approved, coverage will begin on the date of the approval letter.
5. Ecology may require additional time to review the application if:
 - a. There is a request for a public hearing, or
 - b. Public comments are filed that indicate the coverage under the permit may not be appropriate, or
 - c. More information is necessary to determine whether coverage under this general permit is appropriate, or
 - d. Mitigation is required to protect sensitive, threatened, or endangered plant species.
6. When additional time is required to review the application, Ecology will notify the applicant in writing and identify the issues that must be resolved before a decision can be reached.

Permit coverage is subject to a 30-day appeal period. This appeal period begins on the day coverage is issued.

E. Denial and/or Revocation of Coverage

1. Ecology may deny permit coverage under the following conditions:
 - a. Misrepresentation of facts or failure to disclose all relevant facts concerning the permit.
 - b. Inadequate protection of sensitive, threatened, or endangered species.
 - c. Nonpayment of permit fees pursuant to RCW 90.48.465 and Chapter 173-224 WAC.
 - d. Nonpayment of final penalties for permit violations under either the previous Nuisance Weed or Noxious Weed General NPDES permits, or this new general NPDES permit.
 - e. Proposed treatment of a 303(d)-listed water body if such treatment would result in further permanent impairment of the water body and temporary impairment cannot be mitigated.

- f. Proposed treatment of a water body that flows into a 303(d)-listed water body if such treatment would result in further permanent impairment of the water body and temporary impairment cannot be mitigated.
2. Ecology may require any discharger with coverage under this permit or applying for coverage under this permit to apply for and obtain coverage under an individual permit or another more specific general permit.
3. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.
4. If the applicant has an individual permit but applies for coverage under the general permit, the individual permit will remain in effect until terminated in writing by Ecology.

F. Length of Coverage

The length of coverage is the period of this general permit, unless otherwise notified by Ecology. A Permittee may request termination of permit coverage by submitting a “Notice of Termination” form. If coverage is not terminated, the Permittee will continue to incur an annual permit fee.

S3. COMPLIANCE WITH STANDARDS

A. Standards

This permit does not authorize a violation of Washington State surface water quality standards (Chapter 173-201A Washington Administrative Code (WAC)), ground water quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), or human health-based criteria in the National Toxics Rule (Federal Register, Vol. 57, NO. 246, Dec. 22, 1992, pages 60848-60923).

B. Impaired Water Bodies

The Permittee shall not cause further permanent impairment of any 303(d)-listed water body for any parameter. Phosphorus and dissolved oxygen are specific parameters of concern. The Permittee shall consider and apply at least one of the following mitigation measures to prevent further impairment (outside of the confines of the short-term modification of water quality standards allowed under this permit):

1. Timing of treatment (early vs. late in the season)
2. Chemical choice (contact vs. systemic herbicides)
3. Limiting the area treated at any one time

4. Mechanical removal of plants following chemical treatment
5. Aeration

S4. WETLANDS-CONTROL PROJECTS

For swim beach and boat launch control projects in **identified and/or emergent wetlands**, treatments shall be minimized to protect the wetlands, but allowed to the extent necessary for safe recreation and navigation. For eradication projects, the Permittee shall protect native wetland vegetation as much as possible and shall use marker dyes when appropriate.

S5. RESTRICTIONS ON THE APPLICATION OF PRODUCTS

A. Short-Term Modification of Water Quality Standards

1. WAC 173-201A-410 allows short-term modification of the criteria and classifications established by this regulation so long as certain conditions are met. Such activities must be conditioned, timed and restricted in a manner that will minimize water quality degradation to existing and characteristic uses.
2. The application of products allowed by this permit to control and eradicate aquatic plants and algae is only permitted so long as all the terms and conditions of this permit are satisfied, and the transitory water quality impact is limited to the vicinity of the product application and to the minimum time necessary to accomplish the desired aquatic pest control and/or eradication objectives.
3. The application of products authorized by this permit shall not cause long-term harm to the environment.
4. The short-term water quality modification must be limited to hours, days, or weeks for a specific pesticide application authorized under this permit. In the event that multiple treatments occur over the life of the permit, the total time of the short-term modification for all treatments cannot exceed one year.

B. Authorized Discharges

1. Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge aquatic herbicides, algaecides, and associated adjuvants, dyes, marker dyes, barley straw, nutrient inactivation, shading products, and biological water clarification products as listed in the permit application into surface waters of the State.
2. All discharges shall comply with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) label requirements, all applicable federal and/or state laws and rules, and any additional requirements as specified in this permit.

C. Prohibited Discharges

1. The following discharges and treatments are prohibited by this permit.

Any treatment that causes:

- a. Oxygen depletion, to the point of stress or lethality to aquatic biota from plant die-off.
 - b. Unintended impacts to water quality or biota.
 - c. The mortality of aquatic vertebrates.
2. The application of the products more frequently than, or at concentrations higher than levels authorized by this permit, shall constitute a violation of the terms and conditions of this permit.

D. Products Allowed for Use Under This Permit

1. This permit allows application of the following listed pesticides that are labeled for use on aquatic sites and any other registered pesticides after they are approved through Ecology's approval process (see Section S11) if the application is made in compliance with all the terms and conditions of this permit:
 - a. 2,4-D: 2,4-Dichlorophenoxyacetic acid, dimethylamine salt
 - b. 2,4-D: 2,4-Dichlorophenoxyacetic acid, butoxyethyl ester
 - c. Diquat: Dibromide salt of 6,7-dihydrodipyrido (1,2-a:2',1''-c) pyrazinediium
 - d. Endothall (e.g., Aquathol K™): Dipotassium salt of 7-oxabicyclo[2.2.1]heptane-2,3dicarboxylic acid
 - e. Endothall (e.g., Hydrothol 191™): mono(N,N-dimethylalkylamine) salt of 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
 - f. Fluridone: 1-methyl-3-phenyl-5-[3-(trifluoromethyl)phenyl]-4(1H)-pyridinone
 - g. Glyphosate: N-(phosphonomethyl)glycine, isopropylamine salt
 - h. Sodium carbonate peroxyhydrate
 - i. Imazapyr: 2-(4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl)-3-pyridinecarboxylic acid
 - j. Triclopyr TEA: Triethylamine salt of 3,5,6-trichloro-2-pyridyloxyacetic acid

2. The adjuvants listed in Table 1 and any other registered adjuvants that are labeled for use on aquatic sites approved by WSDA and Ecology are approved for use in compliance with the terms and conditions of this permit.

Table 1: Listed Adjuvants

Adjuvant (trade name)	Product use
Agri-Dex™	Crop Oil Concentrate
Bond™	Spreader, sticker
Class Act Next Generation™	Water Conditioning Agent
Competitor™	Modified Vegetable Oil Surfactant
Cygnet Plus™	Surfactant
Dyne-Amic™	Modified Vegetable Oil, Organosilicone Surfactant
Exciter™	Surfactant, Water Conditioning Agent
Intensify™	Water Conditioning Agent
Interlock™	Penetrating Agent, Drift Control Agent
Kinetic™	Organosilicone Surfactant Blend
LI-700™	Acidifier, Drift Control Agent, Surfactant
Liberate™	Drift Control Agent, Surfactant
Magnify™	Water Conditioning Agent
Sinker™	Sinking agent
Tactic™	Spreader, sticker

3. Nutrient inactivation products, including aluminum sulfate, sodium aluminate, and calcium hydroxide/carbon dioxide and other products approved by Ecology for this type of activity are allowed for use in compliance with all of the terms and conditions of this permit.
4. Marker dyes for plant control and eradication activities are allowed for use in compliance with all of the terms and conditions of this permit.

5. Shading products for aquatic plants and algae control activities are allowed for use in compliance with all of the terms and conditions of this permit.
6. Water clarification products, including barley straw and bacterial products, are allowed for use in compliance with all of the terms and conditions of this permit.

E. Experimental Use Permits

Other herbicides, algaecides, and adjuvants may be applied on a limited basis in the context of a research and development effort under the jurisdictions of the Environmental Protection Agency (EPA) and WSDA through the issuance of a Federal Experimental Use Permit. Coverage under this general permit is required for in-lake projects conducted under a Federal Experimental Use Permit.

F. Specific Restrictions on the Application of Products

1. Permittees shall minimize pesticide applications that require public water use restrictions during weekends. Permittees shall avoid pesticide applications that require public water use restrictions during the opening week of fishing season, Memorial Day weekend, Independence Day weekend, and Labor Day weekend.
2. The Permittee shall comply with the specific application restrictions for each product as identified in Tables 2 through 5 below.

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

Herbicide or Algaecide	Subject to Fish Timing Windows^{1*}	Restrictions/ Advisories^{2*}	Treatment Limitations	Other Specific Restrictions
2, 4 – D (amine)	Yes	Swimming advisory during treatment, and 24-hour post-treatment (in the treatment area)	When conducting a control project, do not apply within 400 feet of an outlet stream if there is an outflow	N/A
2, 4 – D (ester)	N/A See Other Specific Restrictions	Swimming restriction during treatment, and 24-hour post-treatment (in the treatment area)	N/A	Ester formulation is not allowed in areas supporting threatened or endangered salmon runs. This is a year-round restriction. See link below: http://www.epa.gov/oppfead1/endauger/wtc/maps.htm
Diquat	Yes	Swimming advisory during treatment, and 24-hour post-treatment (in the treatment area)	Do not treat shoreline vegetation or algae. Do not pour Diquat directly from container.	N/A
Endothall (Aquathol™)	Yes	Swimming advisory during treatment, and 24-hour post-treatment (in the treatment area)	Do not apply within 400 ft of an outlet stream if there is an outflow.	N/A
Endothall (Hydrothol 191™)	Yes	Recreational restriction during and 24-hour after treatment (in the entire water body)	Use for control of filamentous algae and cyanobacteria only, as specified in S1.A.2(b) of the permit. Limit concentrations to 0.2-mg/L of active ingredient	Treatment shall occur from the shoreline outward into the waterbody.
Fluridone	No	No	May not be applied directly to the entire littoral zone of a water body more than once per permit cycle (unless applied under a specific plan for eradication).	N/A
Glyphosate	No	No	N/A	N/A
Sodium carbonate peroxyhydrate	No	Swimming advisory during treatment, and 2-hour post-treatment (in the treatment area)	Use for control of filamentous algae and cyanobacteria only, as specified in S1.A.2(b) of the permit. Shoreline and wetland treatments are prohibited.	N/A

Table 2: Specific Restrictions on the Application of Herbicides and Algaecides for Control and Eradication Projects (*Continued from previous page*)

Herbicide or Algaecide	Subject to Fish Timing Windows^{1*}	Restrictions/Advisories^{2*}	Treatment Limitations	Other Specific Restrictions
Imazapyr	No	No	N/A	N/A
Triclopyr TEA	No	Swimming advisory during treatment, and 12-hour post-treatment (in the treatment area)	Aerial applications are not allowed. Ground water monitoring is required prior to any third application on a previously treated site within a three-year period (for submersed or floating-leaved plants only) (see Appendix C).	N/A

Note: These restrictions are in addition to the current federal FIFRA label requirements.

^{*1} The fish timing window was developed by Washington Department of Fish and Wildlife (WDFW) to protect salmon, steelhead, and bull trout populations in the water body. http://www.ecy.wa.gov/programs/wq/pesticides/final_pesticide_permits/noxious/noxious_index.html. The table may be periodically updated upon WDFW request when new information becomes available.

^{*2} Restrictions/Advisories: Recreational restrictions apply to swimming, boating, water skiing, etc. Swimming restrictions apply to primary contact activities, such as swimming, wading, and water skiing.

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

Nutrient Reduction Products	Subject to Fish Timing Windows^{1*}	Restrictions/Advisories^{2*}	Treatment Limitations	Other Specific Restrictions
Aluminum sulfate	No	No	<u>Partial and Whole Lake Treatments</u> <ul style="list-style-type: none"> • Application shall cease when wind speed is greater than 15 miles per hour • Powdered alum shall be mixed with water to form a slurry • The pH of lake water during treatment shall remain between 6 and 8.5 • Only aluminum compounds suitable for water treatment may be used. • Buffering materials shall be available for use 	A jar test shall 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. The purpose of the jar test is to provide data to maintain the pH of the water body between 6 and 8.5, not for aluminum dosing requirements. Follow monitoring requirements stated in S7.B.1.
Calcium hydroxide/ Carbon dioxide	No	No	The pH shall remain between 6 and 9.	A jar test shall be completed prior to treatment to identify proper dosing levels. pH must be measured immediately, one hour, 4 hours, and 24 hours after treatment. Follow monitoring requirements stated in S7.B.2.

Note: The products listed below are not registered as pesticides through FIFRA or regulated under any other federal laws or regulations. A licensed applicator is not needed for the application of any of these products to waters of the United States.

*1. The fish timing window was developed by Washington Department of Fish and Wildlife (WDFW) to protect salmon, steelhead and bull trout populations in the water body. http://www.ecy.wa.gov/programs/wq/pesticides/final_pesticide_permits/noxious/noxious_index.html. The table may be periodically updated by WDFW when new information becomes available.

Table 4: Restrictions on Applications of Barley Straw

Amount needed for algae control	Placement in ponds and lakes	Time of year for placement	Requirements	Things to know
<ul style="list-style-type: none"> • Calculate the surface area of the water body (in square feet or acres) • Use lower application rates for clear water and higher application rates for turbid water • Apply 0.3 - 0.8 oz. for each 10 square feet, or 54-225 lbs. per acre, or 1-5 bales per acre (1 bale ≈ 45 lbs.) 	<ul style="list-style-type: none"> • Place bags of straw where control is desired, such as around docks and swim areas. • Place bags near inlets to ponds and small lakes to aid in aeration or mixing. • Stake or anchor the bag in place. • Float or submerge bags. • A Hydraulic Project Approval (HPA) may be required. Contact the regional Department of Fish & Wildlife office prior to placing straw. 	<ul style="list-style-type: none"> • Straw should be placed in early spring, prior to the growth of algae. 	<ul style="list-style-type: none"> • Use organic straw if possible. Barley crops that are treated with herbicides should not be placed in water. • Do not use whole bales or tightly packed straw. • Loosely pack straw in nylon or mesh bags. • Remove bags after four to six months. • Straw must not be left in the water over the winter. 	<ul style="list-style-type: none"> • Straw will produce a dark color in the water as it decomposes. This color will disappear. • Barley straw takes 4-6 weeks to produce results. • More barley straw is not better. Do not exceed recommended amounts. Too much straw may degrade water quality.

Note: Studies have shown that when barley straw is placed in water, fungi and microorganisms break down the straw to form compounds that inhibit the growth of algae. Barley straw is not registered as a pesticide under FIFRA or regulated under any other federal laws or regulations. A licensed applicator is not needed for the application of any of this product to waters of the United States.

Table 5: Restrictions on Applications of Shading Products, Biological Water Clarifiers, etc.

Product	Restrictions
Shading products	Do not apply directly to streams or any other body of water that discharges to surface waters of the state.
Biological Water Clarifiers	Only for use in water bodies with no discharge to surface waters of the state during and for two weeks after treatment.

Note: These restrictions are in addition to the federal FIFRA label requirements (if applicable).

Table 6: Specific Treatment Restrictions for Aquatic Weed Eradication Projects

Plant	Treatment Restrictions
Curly-leaf pondweed (<i>Potamogeton crispus</i>)	For eradication projects, the treatment shall occur either early in the turion cycle (usually February 1 - April 15) or late in the year (September 1 - October 30). If using fluridone, concentrations shall not exceed 10 parts per billion.
Eurasian watermilfoil (<i>Myriophyllum spicatum</i>)	<u>Early infestation:</u> The preferred herbicides are 2, 4-D and triclopyr. Fluridone, Diquat, and endothall may be used if the applicant has demonstrated to Ecology's satisfaction that neither 2, 4-D or triclopyr has been effective in eliminating milfoil, or under special circumstances. <u>Established infestation:</u> Only fluridone, 2, 4-D, and triclopyr are approved for use, unless extenuating circumstances exist. In these situations, a different product must be approved by Ecology in writing in advance of treatment. If this permit is modified to include products that are effective and selective for milfoil eradication, the new products may be used only after permit modification.
Brazilian elodea (<i>Egeria densa</i>)	For eradication projects, only diquat or fluridone can be used unless a new product is shown to be effective on Brazilian elodea.

Note: Herbicide products are available that specifically target different aquatic plants. The purpose of this table is to limit the impact to non-target plants in a water body during eradication project.

S6. NOTIFICATION AND POSTING REQUIREMENTS

A. Ecology Notification Requirements

1. Pre- and post-treatment notification – For every week that treatment is planned, the Permittee(s) shall email information to Ecology on the form supplied in Appendix D. This form shall list the water bodies scheduled for treatment the following week. This form shall also detail the treatments that have taken place during the current week. The Permittee shall send the email to the appropriate Ecology regional office and Ecology headquarters no later than 5:00 pm on Friday of each week during the treatment season.

Central Regional Office, Yakima	(509) 575-2490	email: rlat461@ecy.wa.gov
Eastern Regional Office, Spokane	(509) 329-3400	email: kmer461@ecy.wa.gov
Northwest Regional Office, Bellevue	(425) 649-7000	email: tsho461@ecy.wa.gov
Southwest Regional Office, Lacey	(360) 407-6300	email: mhil461@ecy.wa.gov
Water Quality Headquarters, Lacey	(360) 407-6400	email: kelm461@ecy.wa.gov

2. Inspection Coordination Requirements
 - a. At Ecology’s request, each Permittee shall coordinate and schedule inspections with the appropriate Ecology regional staff.
 - b. The agreed upon location and starting time for the inspection shall be on record in writing at Ecology.
 - c. For inspections scheduled by the Ecology regional staff in Condition S6.A.2.a., the Permittee shall not treat unless Ecology staff are present or do not appear within 30 minutes of the scheduled and agreed upon start time, at the scheduled and agreed upon location.
3. The Permittee shall immediately notify the appropriate Ecology regional office if a spill of product(s) covered under this permit occurs into waters of the state, or onto land with a potential for entry into waters of the state. The Permittee shall notify the appropriate Ecology regional office when they are made aware of any of the following conditions occurring during or after a treatment:
 - a. Any person(s) exhibits or indicates any toxic and/or allergic response as a result of the treatment.
 - b. Any fish or fauna exhibit stress conditions or die within or downstream of the treatment area.

The notification shall include: a description of the incident, products involved, names and contact information of persons affected, impacts to fish and/or fauna, and suggestions for preventing future incidents.

B. Residential and Business Notification

1. The Permittee(s) shall complete copies of the Residential and Business Notice form provided by Ecology in Appendix E. No modifications of this template are allowed.
 - a. When the product's label has restrictions and/or precautions for potable or domestic water use, irrigation use or livestock watering, the Permittee shall notify those who withdraw surface waters for such uses. This notification statement shall identify the pesticide(s) being used, the date(s) of expected treatment, and all water use restrictions and precautions, including information about who the water user can contact to obtain an alternate water supply during treatment. The Permittee shall not treat an area until people who withdraw water have been notified and an alternative water supply is provided, if requested by the affected water user(s).
 - b. The Permittee shall send the forms to all residences and businesses within one-quarter ($\frac{1}{4}$) mile in each direction along the shoreline or across the water of the areas to be treated.
 - c. The Permittee shall provide notice to residences or businesses, by mail or newsletter, or handbills delivered directly to the residences or businesses. If handbills are used, the applicator(s) shall secure the notices to the residences or businesses doorknob in a fashion that will hold them in place but will not damage property. If the residence or business is gated or guarded by watchdogs, the applicator(s) may secure the notice in clear view on the outside of the gateway or may attach the notice to the outside of the residence in a fashion that will hold it in place but will not damage property.
 - d. The Permittee shall notify residents and businesses 10 to 21 days prior to initial treatment.
 - e. The Permittee shall mail, email, or fax a copy of the Residential and Business Notice, including the date of distribution, to the appropriate Ecology regional office contact no later than one business day following distribution.
 - f. The Permittee shall maintain a copy of the notice and a list of locations or addresses to which they were sent or delivered for seven years. The Permittee shall hand deliver or mail a copy of the notice and list of recipients to Ecology within five business days upon request.
2. Residential and Business Notices are not required for applications made to limited access highways, fenced wetland mitigation sites, or other facilities where no reasonable public access exists.

3. If the Residential and Business Notice explains the chemical **application schedule** for the whole season, and there is no deviation from that plan, no further Residential and Business Notice will be required for the rest of the season (unless a resident or business specifically requests further notification).

C. Camp Notification Requirements

1. Camps shall notify parents/guardians of campers in writing if a pesticide application is expected to occur during or within two weeks prior to their camper attending camp.
2. The written notification shall include:
 - a. The name of the product being applied,
 - b. The time period during which the treatment will occur,
 - c. Any swimming or recreational advisories or restrictions as named in this permit or on the product label, and
 - d. Camp contact information for further questions.

D. Posting Requirements

1. The Permittee shall post signs no more than 48 hours prior to the application of any products covered under this permit. (The Permittee shall use templates provided in Appendix F). No modifications of this template are allowed, except where Ecology has requested that the Permittee fill in label restrictions about the pesticide to be used.
2. The Permittee shall ensure that posted signs remain in place until the end of the period of water use restrictions.
3. The Permittee shall remove all old signs before a new treatment begins or before the end of the treatment season, whichever comes first.
4. The Permittee shall post warning signs in English and in the language commonly spoken by the community that uses the area.
5. Posting Privately or Publicly-Owned Shoreline Areas (excluding public access areas)
 - a. The Permittee shall post **privately or publicly-owned shorelines** using the templates provided in Appendix F. No modifications of this template are allowed, except where Ecology has requested that the Permittee fill in label restrictions about the pesticide to be used.

- b. Sign colors for the first treatment of a water body each season shall be white, the second yellow, and the third orange. The sign for the fourth treatment shall be white, the fifth yellow, the sixth orange, etc.
- c. The Permittee shall post signs to face both the water and the shore and shall place signs on each private or public property within ten feet of the shoreline and within 400 feet of the treatment areas. The Permittee shall post one sign for every 100 feet of shoreline. The Permittee shall post signs to be secure from the normal effects of weather and water currents, without causing damage to private or public property.
- d. No posting is necessary in those areas where public access is limited to boat only access.

6. Posting Shoreline Public Access Areas

Public access areas include: swim beaches, docks, and boat launches at resorts; privately-owned community access areas; and anywhere that the public can reasonably gain access to the shoreline.

- a. Signs shall be a minimum of two feet by three feet in size and shall be constructed of a durable weather-resistant material. The sign shall include:
 - i. The word "CAUTION" in bold black type at least two inches high.
 - ii. All other words shall be at least ½ inch high.
- b. Signs shall face both the water and the shore and be placed within 25 feet of the shoreline. The Permittee shall post one sign along every 100 feet of shoreline in the public access areas. The Permittee(s) shall place signs so they are clearly readable by people using the access areas. Permittee(s) shall post signs that are secure from the normal effects of weather and water currents, but cause no damage to private or public property.
- c. The Permittee shall attach an 8½ by 11 inch weather resistant map detailing the treatment areas for each product used. The map shall identify the location(s) of the product(s) used and mark the reader's location at the public access site.
- d. The Permittee shall post the public notice signs at all of the water body's public access areas within one-quarter mile of the treatment area and all of the water body's public boat launches within one and one-half miles of the treatment area.

7. Posting for Indirect Aquatic Applications

- a. Posting is not required for roadside applications or applications to mitigated wetland areas with no reasonable public access.

- b. For those applications containing a publicly accessible area,
 - i. Post signs no more than 48 hours prior to an application
 - ii. Place signs within 25 feet of any shoreline facing both egress and entrance of any boat launch on the water body that is within ½ mile of any treatment site. Boat launches also include sites commonly used as put-ins and take-outs for small, non-trailerred watercraft. Check the Washington State Parks and Recreation Commission publication Public Boating Facilities in Washington State, second edition, 1988, to identify public accesses. Reference copies of this publication are available through the Washington State Library, King County Library, Gonzaga University Library, and Washington State University Library.
- c. The Permittee(s) shall use good faith and reasonable effort to ensure that posted signs are secured and remain in place.
- d. The Permittee shall post signs so they are secure from the normal effects of weather and water currents, but cause no damage to private or public property.
- e. The Permittee is responsible for removal of all signs at the end of the treatment season. Biodegradable sign material may be used so that removal is not necessary.
- f. The Permittee shall post signs in English and the language, if other than English, commonly spoken by the community that uses the area.

8. Posting on the Water

- a. The Permittee shall post buoys on the water when any of the following conditions are met for the treatment of submersed, floating, or floating-leaved plants:
 - i. The product has recreational and/or fish consumption restrictions,
 - ii. The water body is greater than one acre and/or more than 200 feet from the treatment area to the opposite shore, or
 - iii. The entire shoreline has not been posted.
- b. Posted buoys shall have:
 - i. Durable weather-resistant signs
 - ii. Signs readable from two opposing directions
 - iii. Signs positioned so they are completely out of the water

- iv. Signs that are a minimum 8½ by 11 inches in size.
- v. The signs shall include:
 - 1. The word “CAUTION” in bold black type at least one inch high.
 - 2. All other words shall be at least ¼ inch high, and indicate the use restriction(s) for the pesticide applied.
- c. Sign colors for each treatment of a water body each season shall be white.
- d. The Permittee shall space buoys as follows: one buoy at each approximate corner of the treatment area and one buoy at each 100 foot interval around the treatment area.

S7. MONITORING REQUIREMENTS

A. Application of Herbicides, Algaecides, and Nutrient Inactivation Products

- 1. Eradication Projects - Ecology’s aquatic plant specialist will establish monitoring requirements for any monitoring conducted under the Aquatic Weeds Management Fund grant program for eradication of submersed, floating, or floating-leaved plants in lakes.
- 2. Control Projects
 - a. The Permittee shall conduct pre- and post-treatment monitoring for dissolved oxygen when contact herbicides are used in lakes that are 303(d)-listed for low dissolved oxygen.
 - b. The Permittee shall conduct pre-treatment monitoring on the day of treatment, immediately prior to the treatment. The Permittee shall monitor for dissolved oxygen concentration at the surface and near the bottom, at the center, and the edge of the proposed treatment area.
 - c. The Permittee shall conduct post-treatment monitoring no earlier than five days and no later than seven days after the treatment, at the **same time of day** that the pre-treatment monitoring occurred and at the same sites and depths.
 - d. The Permittee shall submit all monitoring data in writing to Ecology within one month of herbicide treatment. Please refer to S8.E. for information on sampling procedures and quality assurance.
- 3. Control Projects in the Lake Washington Ship Canal
 - a. Any Permittee using a contact herbicide shall conduct pre- and post-treatment dissolved oxygen monitoring for any treatment site over three acres in size (in total for the treatment season).

- b. The Permittee shall conduct pre-treatment monitoring midday (between 10am-3pm) on each of the three days prior to treatment. The Permittee shall monitor for dissolved oxygen in the center of the area to be treated and in a vegetated area that will not be treated. Samples shall be taken at the surface, mid-depth, and one foot from the lake bottom in each area.
- c. The Permittee shall conduct post-treatment monitoring for each of five days following treatment. Sampling shall occur at the same time, sampling locations, and depths as the pre-treatment monitoring.
- d. The Permittee shall submit all monitoring data in writing to Ecology within one month of herbicide treatment. Please refer to S8.E for information on sampling procedures and quality assurance.

B. Application of Phosphorus Inactivation Products

1. For aluminum sulfate or sodium aluminate (alum) treatment in any lake system, the Permittee shall monitor, at a minimum, for pH once in the morning and once in the afternoon for the duration of the treatment.
 - a. If the pH decreases to less than 6.2, the Permittee shall sample and analyze for alkalinity.
 - b. The Permittee shall take Secchi disk measurements before and after application.
 - c. For continuous injection systems, the Permittee shall monitor pH once a day for the duration of the injection process.
 - d. For whole lake and continuous injection treatments, the Permittee shall ensure that pH measurements represent lake-wide conditions, unless the injection system is hydrologically isolated from the main lake volume (e.g., in a bay with a narrow throat). For hydrologically isolated areas of water bodies, the Permittee shall sample pH at the end of the bay and in the main lake.
2. For calcium hydroxide/carbon dioxide treatment, the Permittee shall conduct pH monitoring once on the day before treatment, and once in the morning and once in the afternoon during treatment and for ten days following treatment.
 - a. If the pH is above 9.0, the Permittee shall stop treatment.
 - b. For continuous injection systems, the Permittee shall monitor pH once in the morning and once in the afternoon while the system is in operation.
3. The Permittee shall submit all monitoring data in writing to Ecology within one month of treatment.

S8. SAMPLING AND ANALYTICAL PROCEDURES

- A. EPA publishes laboratory analytical methods used by industries and municipalities to analyze the chemical and biological components of wastewater, drinking water, sediment, and other environmental samples that are required by EPA regulations under the authority of the Clean Water Act and the Safe Drinking Water Act. Most of these methods are published by EPA as regulations at 40 CFR Part 136 or in the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA). The Permittee shall use either an EPA method or one of the methods specified below to fulfill the monitoring requirements of this permit.
- B. With the exception of certain parameters used for process control the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, Accreditation of Environmental Laboratories.
- C. Dissolved oxygen, pH, alkalinity titration, and Secchi disk sampling do not require accreditation for monitoring under this permit.
- D. Analyses conducted using enzyme linked immunosorbent assay (ELISA) methods may substitute for the requirements in paragraph A of this section.
- E. All dissolved oxygen and pH monitoring shall follow the protocols in “A Citizens Guide to Understanding and Monitoring Lakes and Streams,” found at this link:
<http://www.ecy.wa.gov/programs/wq/plants/management/joymanual/index.html>.

S9. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit and is punishable by both civil and criminal enforcement.

A. Annual Reporting

- 1. Eradication and Control Projects
 - a. The Permittee shall submit all treatment information and monitoring results obtained during the most recent treatment season to Ecology’s Water Quality Headquarters office.
 - b. The Permittee shall submit the report no later than November 30th of the year the treatment occurred (November 1-October 31).
 - c. The Permittee shall submit annual treatment/monitoring reports regardless of whether or not treatment or monitoring occurred.
 - d. The Permittee shall complete the online report system each year, and then print it, sign and date it before sending to:

Aquatic Pesticides Permitting
Department of Ecology, Water Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

2. The Permittee shall submit the following information in the annual report using the online reporting system:
 - a. Name of water body,
 - b. Date(s) treatment occurred,
 - c. List of chemicals used,
 - d. Amount of product applied,
 - e. Acreage treated,
 - f. Results of required monitoring , and
 - g. Plant species targeted.

B. Records Retention

1. The Permittee shall retain a copy of this permit and records of all monitoring information for a minimum of five years. Such information shall include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, 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 period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director of Ecology.

C. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information:

1. The date, exact place, sampling method, and time of sampling or measurement,
2. The individual who performed the sampling or measurement,

3. The dates the analyses were performed,
4. The name of the laboratory or individual who performed the analyses,
5. The analytical techniques or methods used,
6. Method detection limit (MDL),
7. Laboratory practical quantitation limit (PQL), and
8. The results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any parameter more frequently than required by this permit using test procedures specified by Section S8 of this permit, the Permittee may submit the results of the additional monitoring in the annual report.

E. Noncompliance Notification

In the event the Permittee is unable to comply with any of the terms and conditions of this permit for any cause, the Permittee shall:

1. Immediately stop the activity causing the noncompliance, and correct the problem
2. Immediately notify Ecology of the failure to comply.
3. Return to compliance as quickly as possible.

S10. SPILL PREVENTION AND CONTROL

A. Spill Prevention

1. The Permittee shall have the following materials and supplies on site during treatment:
 - a. A waterproof list of the appropriate Ecology telephone numbers to call in the event of a spill.
 - b. Absorbent materials for cleanup, or, in the event of a dry chemical spill, the spill containment materials recommended in the Material Safety Data Sheet (MSDS) for that product.
 - c. The appropriate cleanup materials for a spill of the specific products being applied.

2. The Permittee shall store, handle, and use all oil, fuel, chemicals, or products authorized under this permit in a manner that prevents spills to waters of the state.
3. The Permittee shall ensure that mobile equipment that enters waters of the state during the treatment process is maintained to prevent leaks or spills of petroleum products.

B. Spill Notification Requirements

The Permittee shall report spills into waters of the state or on land with a potential for entry into waters of the state, or other significant water quality impacts to the appropriate Ecology Regional Office (see S6.A.) as soon as possible after the spill takes place.

C. Spill Cleanup Requirements

1. In the event the Permittee's actions/inactions result in the spill or leak of oil, fuel, chemicals, or products into waters of the state, or onto land with a potential for entry into waters of the state, the Permittee shall begin immediate containment and cleanup.
2. The Permittee shall complete cleanup using appropriate materials as soon as possible. Cleanup shall take precedence over normal work.
3. Cleanup shall include proper disposal of any spilled materials and used cleanup materials.

S11. CONDITIONAL APPROVAL FOR THE USE OF PRODUCTS NOT SPECIFIED IN THE CURRENT PERMIT

A. Product Approval

This permit allows the use of products not specifically listed if all of the following procedures are followed:

1. Pesticides shall be approved for the specific use by EPA and/or WSDA.
2. Pesticides not specifically allowed for use under this permit shall undergo a risk assessment process and to be approved by Ecology. This risk assessment is an evaluation of the product, independent of the risk assessment performed by EPA during the registration process, and is intended to be more specific to Washington State concerns. The risk assessment shall:
 - a. Be prepared by a **qualified toxicologist**.
 - b. Include, at a minimum:

- i. Qualifications of the toxicologist(s) who prepared the risk assessment;
 - ii. Verification that the product will meet the specified general conditions and prohibitions of this permit;
 - iii. Information about human health effects from the product, acquired since the issuance of EPA's most recent risk assessment on the active ingredient;
 - iv. A summary and assessment of the peer-reviewed literature concerning the product since the issuance of EPA's most recent risk assessment;
 - v. All available environmental and ecological information about the product and its environmental fate and effects; and
 - vi. Mitigation measures for the use of the product; and
 - vii. Be approved by Ecology.
3. Adjuvants shall be approved by Ecology after undergoing a review by WSDA and the completion of the SEPA process.

B. Public Notification Procedures

After Ecology's approval of the risk assessment, Ecology shall conduct public notification in the state register and make the notification available for posting on Ecology's website. The notice shall provide:

1. The chemical name and the brand name(s),
2. The expected uses of the product,
3. A summary of the expected environmental and human health effects,
4. Information about how to obtain copies of the risk assessment, and
5. Information about how to comment on the proposed use of the chemical within the 30-day comment period.
6. Comments submitted during this process should be submitted to:

Aquatic Pesticide Specialist
Department of Ecology, Water Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

C. Approval of a New Product

1. Based on any additional valid scientific information provided during the public comment period, Ecology may either grant, condition, or deny approval for the use of the new product.
2. Following approval, Ecology will modify this permit to condition the product's use.

S12. MITIGATION FOR PROTECTION OF SENSITIVE, THREATENED, OR ENDANGERED PLANTS: CONTROL PROJECTS

A. Requirement for a Sensitive, Threatened, or Endangered Plant Survey

1. If Ecology notifies the Permittee that there is a sensitive, threatened, or endangered plant species present in a proposed treatment area, the Permittee shall complete a detailed plant survey (unless exempted from this requirement in writing by Ecology, pending consultation with DNR Natural Heritage Program staff).
2. The survey shall be performed by a **professional aquatic botanist** or **wetland specialist**. The person hired to conduct the aquatic plant survey shall be independent of the planned project.
3. The survey shall be conducted when plants are present and can be positively identified, but not earlier than three months prior to any chemical treatment. The three month restriction can be waived if the plant cannot be positively identified in the three months prior to the planned treatment.
4. The Permittee shall conduct a plant survey annually for sensitive, threatened, or endangered submersed, floating, or floating-leaved plants, and once every five years for sensitive, threatened or endangered emergent shoreline vegetation. The Permittee shall submit the plant survey to Ecology no later thirty days prior to the planned treatment each year.

B. Mitigation Measures

1. After a plant survey is completed, the Permittee shall apply prescribed buffers (where required), and select one or more of the appropriate mitigation choices listed below to minimize the impact of the proposed pesticide treatment on the specific type of sensitive, threatened, or endangered plant. Monitoring the vitality of rare plant populations may be required by Ecology.
2. Appropriate mitigation measures include:
 - a. For Submersed, Floating, or Floating-leaved Plants: If the sensitive, threatened, or endangered plant is submersed, floating, or floating-leaved, and the herbicide application is intended to control submersed species, the Permittee shall apply the

provided buffer and choose one or more of the following mitigation measures to protect the rare plants:

- i. Maintain a buffer of 100 feet from the rare plant when using herbicides that are fast-acting, deactivate quickly and are known to have minimal dissipation. For herbicides that are active in the water column for an extended period and dissipate widely (such as fluridone), the Permittee shall consult with Ecology.
 - ii. Use a selective herbicide (if applicable).
 - iii. Use the lowest effective concentration of herbicide for the target plant if the Permittee can demonstrate that the rare plant is resistant to the herbicide at that concentration.
 - iv. Use barriers (silt curtains) to protect the sensitive, threatened, or endangered plant.
 - v. If the Permittee has difficulty maintaining a buffer of 100 feet from the majority of floating sensitive, threatened, or endangered plants, the Permittee shall consult with Ecology for other options (such as physically relocating the plants).
- b. For Floating-leaved or Emergent Plants (target is a noxious weed): If the sensitive, threatened, or endangered plant is floating-leaved or emergent, and the targeted noxious weeds will be treated above the water, the Permittee shall select an application technique designed to cause less non-target damage (e.g., low-drift nozzle heads, wiper applications, sponge bars, etc) and use marker dyes.
- c. Floating-leaved or Emergent Plants (target is a nuisance plant): If the sensitive, threatened, or endangered plant is floating-leaved or emergent, and the targeted plants are being treated above the water, the Permittee shall apply the prescribed buffer and choose one or more of the following mitigation measures to protect the rare plants:
- i. Maintain a treatment buffer of 10 feet from the sensitive, threatened, or endangered plant.
 - ii. Select an application technique designed to cause less non-target damage (e.g., low-drift nozzle heads, wiper applications, sponge bars, etc.).
 - iii. Apply the herbicide when it will not impact the sensitive, threatened, or endangered plant (time the treatment during the growing season to prevent impacts to the sensitive, threatened, or endangered species).
 - iv. Cover plant(s) with a non-permeable material.

S13. APPENDICES

All appendices are incorporated by reference into this permit and are subject to enforcement.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

The Permittee shall at all times be responsible for continuous compliance with the terms and conditions of this general permit. The Permittee shall be responsible for compliance with any order, directive, or penalty issued by Ecology.

G2. PROPER OPERATION AND MAINTENANCE

The Permittee shall at all times properly operate and maintain any facilities or systems of control to achieve compliance with the terms and conditions of the general permit. Where design criteria have been established, the Permittee shall not allow flows or waste loadings to exceed approved design criteria or approved revisions thereto. The permittee shall properly operate and maintain all application equipment to achieve compliance with the terms and conditions of the permit. The permittee shall not allow concentrations of the product(s) to exceed label or permit conditions.

G3. RIGHT OF ENTRY

The Permittee shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law, at reasonable times:

- A. To enter upon the permittee or sponsor's premises to which an effluent source (discharge) occurs or in which any records are required to be kept under the terms and conditions of this general permit;
- B. To have access to and to copy at reasonable costs, any records required to be kept under terms and conditions of the permit;
- C. To inspect any postings, monitoring equipment, or method of monitoring required in this general permit; and/or
- D. To sample any discharge of pollutants. If the sampling of influent or internal hatchery waters is necessary, the Permittee will be provided the opportunity to collect the required sample.

G4. NOTIFICATION OF CHANGE IN COVERED ACTIVITIES

The Permittee shall submit a Change in Activities form to Ecology when a project activity changes from eradication to control, and vice versa.

G5. REVOCATION OF COVERAGE

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may require any discharger authorized by this general permit to apply for and obtain coverage under an individual permit or another more specific and appropriate general permit. Cases where revocation of coverage may be required include, but are not limited to the following:

- A. Violation of any term or condition of this general permit.
- B. Obtaining coverage under this general permit by misrepresentation or failure to disclose fully all relevant facts.
- C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E. A determination that the permitted activity endangers human health or the environment, or significantly contributes to water quality standards violations.
- F. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.
- G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

Permittees who have their coverage revoked for cause according to WAC 173-226-240, as listed immediately above, may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within 90 days from the time of revocation and is submitted along with a complete individual permit application form.

G6. GENERAL PERMIT MODIFICATION OR REVOCATION

General permits may be modified, or revoked and reissued, in accordance with the provisions of Chapter 43.21B RCW and Chapter 173-226 WAC. Grounds for modification or revocation and reissuance include, but are not limited to, the following:

- A. When a change that occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this general permit.
- B. When effluent limitation guidelines or standards are promulgated pursuant to the Federal Water Pollution Control Act or Chapter 90.48 RCW for the category of dischargers covered under this general permit.

- C. When a water quality management plan containing requirements applicable to the category of dischargers covered under this general permit is approved.
- D. When information is obtained, which indicates that cumulative effects on the environment from dischargers covered under this general permit are unacceptable.

G7. REPORTING A CAUSE FOR REVOCATION OF COVERAGE

A Permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for revocation under condition G6 or 40 CFR 122.62 shall report such information to Ecology so that a decision can be made on whether action to revoke coverage under this general permit will be required. Ecology may then require submission of a new Application for Coverage under this or another general permit or an application for an individual permit. Submission of a new application does not relieve the Permittee of the duty to comply with all the terms and conditions of the existing general permit until the new application for coverage has been approved.

G8. TRANSFER OF PERMIT COVERAGE

Coverage under this general permit is automatically transferred to a new Permittee if:

- A. A written signed agreement between the old and new Permittee containing a specific date for transfer of permit responsibility and coverage is submitted to Ecology; and
- B. Ecology does not notify the old and new Permittee of its intent to revoke coverage under the general permit in which case the transfer is effective on the date specified in the written agreement between the old and new Permittee.

G9. TOXIC POLLUTANTS

The Permittee shall 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.

G10. OTHER REQUIREMENTS OF TITLE 40 CODE OF FEDERAL REGULATIONS

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

G11. COMPLIANCE WITH OTHER LAWS AND STATUTES

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

G12.ADDITIONAL MONITORING REQUIREMENTS

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

G13.REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or pollution control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters. Such removed substances shall be lawfully disposed in an appropriate manner and shall comply with Chapter 173-303 WAC and Chapter 173-304 WAC.

G14.SIGNATORY REQUIREMENTS

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

- A. All permit applications shall be signed by either a responsible corporate officer of at least the level of vice president of a corporation, a general partner of a partnership, the proprietor of a sole proprietorship or ranking elected official. For direct applications of herbicides and algaecides the application shall be signed by the sponsor and the applicator(s), except when coverage is issued to a government entity. For applications under a roadside vegetation plan, the permit application shall be signed by the sponsor, which may be the agency director or the directors designee.
- B. All reports required by this permit and other information requested by Ecology shall 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 a person described above and submitted to Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of a regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
 3. For direct herbicides and algaecides treatments the reports may be signed by either the sponsor or the applicator(s). For treatments under the roadside vegetation management plan, the sponsor may sign the reports.
- C. Changes to authorization. If an authorization under paragraph B.2. above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph

B.2. above shall be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative. For multi-year coverage under this permit, if the sponsor hires a contractor other than the original applicant, the sponsor shall send a written notification to Ecology. This notification is signed by the sponsor and the new contractor applicant.

D. Certification. Any person signing a document under this section shall 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 inquiries 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 fines and imprisonment for knowing violations.

G15. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER A GENERAL PERMIT

Any discharger authorized by this general permit may request to be excluded from coverage under this general permit by applying for an individual permit. The discharger shall submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. The Director shall either issue an individual permit or deny the request with a statement explaining the reason for the denial.

G16. APPEALS

The terms and conditions of this general permit:

- A. As they apply to the appropriate class of dischargers are subject to appeal within thirty (30) days of issuance of this general permit in accordance with Chapter 43.21(B) RCW and Chapter 173-226 WAC; and
- B. As they apply to an individual discharger are subject to appeal in accordance with Chapter 43.21(B) RCW within thirty (30) days of the effective date of coverage of that discharger.

Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or non-applicability to that discharger. Appeal of this general permit coverage of an individual discharger shall not affect any other individual dischargers. If the terms and conditions of this general permit are found to be inapplicable to any discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G17.DUTY TO REAPPLY

Any Permittee receiving coverage for the length of this permit shall 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 continues in force and effect until a new general permit is issued or until Ecology cancels it. Only those facilities that reapply for coverage are covered under the continued permit.

G18.TERMINATION OF INDIVIDUAL PERMITS

Any previously issued individual permit shall remain in effect until terminated in writing by Ecology, except that extension of an expired individual permit (pursuant to WAC 173-220-180(5)) shall terminate upon coverage under this general permit.

G19.TERMINATION OF COVERAGE UPON ISSUANCE OF AN INDIVIDUAL PERMIT

When an individual permit is issued to a discharger otherwise subject to this general permit, the coverage under this general permit for that Permittee is terminated on the effective date of the individual permit.

G20.ENFORCEMENT

Any violation of the terms and conditions of this general permit, the state Water Pollution Control Act, and the federal Clean Water Act, will be subject to the enforcement sanctions, direct and indirect, as provided for in WAC 173-226-250.

G21.SEVERABILITY

The provisions of this general permit are severable, and if any provision of this general permit, or application of any provision of this general permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this general permit shall not be affected thereby.

G22.PAYMENT OF FEES

The Permittee shall submit payment of fees associated with this permit as assessed by Ecology.

APPENDIX A - DEFINITIONS AND ACRONYMS

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 water bodies every two years. For each of those water bodies, 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 water body (river, marine water, wetland, stream, or lake) and still meet water quality standards.

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

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.

Allowed: Permitted in compliance with the terms and conditions of this permit.

Applicant: the licensed pesticide applicator and any other entity choosing to get coverage.

Application area: The area where herbicides, algaecides, adjuvants, dyes, or nutrient inactivation products are directly applied.

Application schedule: The proposed treatment date(s) for a specific water body during one treatment season.

Aquatic pest control: The control of aquatic pests (such as fish, insects, algae, and plants) of water areas including but not limited to canals, rivers, streams, lake, ponds, marshes and water supply pipelines.

Barley straw: A straw product that, when used according to the instructions in the permit, may potentially improve water clarity in ponds and other small freshwater systems.

Beneficial uses: As defined by WAC 173-201A-200:

- a) Aquatic life uses. Aquatic life uses are designated using the following categories of key species. It is required that all indigenous fish and non-fish aquatic species be protected in waters of the state in addition to the key species described below.
- b) The categories for aquatic life uses are:
 - i. Char. For the protection of spawning and early tributary rearing (e.g., first year

- juveniles) of native char (bull trout and Dolly Varden), and other associated aquatic life.
- ii. Salmon and trout spawning, core rearing, and migration. For the protection of spawning, core rearing, and migration of salmon and trout, and other associated aquatic life.
 - iii. Salmon and trout spawning, noncore rearing, and migration. For the protection of spawning, noncore rearing, and migration of salmon and trout, and other associated aquatic life.
 - iv. Salmon and trout rearing and migration only. For the protection of rearing and migration of salmon and trout, and other associated aquatic life.
 - v. Non-anadromous interior redband trout. For the protection of waters where the only trout species is a non-anadromous form of self-reproducing interior redband trout (*O. mykiss*), and other associated aquatic life.
 - vi. Indigenous warm water species. For the protection of waters where the dominant species under natural conditions would be temperature tolerant indigenous nonsalmonid species. Examples include dace, redband shiner, chiselmouth, sucker, and northern pikeminnow.
 - vii. Miscellaneous uses. The miscellaneous fresh water uses are wildlife habitat, harvesting, recreational uses, commerce and navigation, boating, and aesthetics.
 - viii. General criteria. General criteria that apply to all aquatic life fresh water uses are described in WAC [173-201A-260](#) (2)(a) and (b), and are for:
 1. Toxic, radioactive, and deleterious materials; and
 2. Aesthetic values.
 - ix. Aquatic life temperature criteria. Except where noted, water temperature is measured by the 7-day average of the daily maximum temperatures (7-DADMax). Table 200 (1)(c) lists the temperature criteria for each of the aquatic life use categories.

Biological water clarifiers: Microbial or bacterial products sold for the purpose of naturally “cleansing” a water body of pollutants.

Camp: This refers to those recreation facilities in operation for children or adults during the treatment season (May-September).

Constructed water body: A human-made water body in an area that is not part of a previously existing watercourse, such as ponds, streams, wetlands, etc.

Control: Any type of chemical treatment intended to protect beneficial uses of a water body. This could include the removal of native plants, non-native non-noxious plants, algae, and noxious or quarantine-list weeds (that are not being eradicated lake-wide).

Cyanobacteria (blue green algae): A group of usually unicellular photosynthetic organisms without a well-defined nucleus; sometimes called "blue-green algae" although they are not actually algae.

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

Defined swim channels: Clearly delineated areas intended for safe passage of swimmers between swimming areas on a water body.

Early infestation: A situation in which a state-listed noxious weed, quarantine list weed, or non-native invasive species is discovered in the pioneer stages of growth in a lake (less than 20 percent of the littoral zone is infested).

Eradication: Eradication is the permanent removal of all non-native, invasive aquatic plants of one or more species within a water body or along a shoreline.

Established infestation: A state-listed noxious weed, quarantine list weed, or non-native invasive species is widespread within a lake (more than 20 percent of the littoral zone is infested).

Filamentous algae: Algae that grows in long strings or mats in water.

Floating plants: Plants that are not rooted in the sediment.

Floating-leaved plants: Plants that are rooted in the sediment but have leaves at the water's surface (such as waterlilies).

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

High use areas: Any community boat launches, public boat launches, marinas (both public and private), public or community swim beaches, and canals.

Identified and/or emergent wetlands:

Identified wetlands are those identified by either local, state, or federal agencies.

Emergent wetlands are characterized by plants growing with their roots underwater and leaves extending above the water.

In-lake: Plants that are submersed, floating, or floating-leaved, and exist in a water body identified as a lake or pond, but not a wetland.

Intentionally applied: The area that a pesticide is directly applied to. This does not include pesticide drift, or other unintended pesticide movement.

Invasive: Tending to spread and then dominate the new area. Some non-native species can become invasive when introduced outside of their native range.

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.

Littoral zone: The area from the water body's edge to the maximum water depth where plant growth occurs.

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 clearly visualized.

Native and non-native plants: Plants that are indigenous to the region, or non-native plants that are not currently on Washington State's quarantine list or noxious weed list.

NOI: Notice of Intent (to apply for coverage). This is another term used to describe the completed application form.

Non-native: A plant living outside of its natural or historical range of distribution. Plants considered to be nonnative were not present in Washington prior to European settlement. Not all non-native plants are considered to be noxious plants.

Noxious weed: A legal term (RCW 17.10) that means a non-native plant that when established is highly destructive, competitive, or difficult to control by cultural or chemical practices.

Nuisance aquatic weeds: Non-noxious aquatic plants which are at a density and location so as to substantially interfere or eliminate activities such as boating, swimming, fishing, waterskiing, or other beneficial uses of the water.

Nutrient inactivation: The use of chemical precipitants to bind soluble reactive phosphorus into an insoluble form that is unavailable to aquatic organisms, to clarify the water column, and to reduce the release of phosphorus from the sediments.

Permittee: the licensed applicator and any other entities who have obtained coverage under the permit.

Pesticide: Chapter 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, such as a wetting agent, spreading agent, deposit builder, adhesive, emulsifying agent, deflocculating agent, water modifier, or similar agent with or without toxic properties of its own intended to be used with any pesticide as an aid to the application or effect thereof, and sold in a package or container separate from that of the pesticide with which it is to be used. RCW 17.21.020.

Phytoplankton: Photosynthetic plankton, mainly unicellular algae

Potentially invasive plants: Plants that are not indigenous to the region, and have been shown to have invasive tendencies.

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

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

Professional aquatic botanist: A biologist who specializes in the study and identification of aquatic plants, and has no personal or private investment in the outcome of the survey performed.

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 the public waters for recreational purposes.

Qualified toxicologist: A person with a Ph.D in toxicology or in a health or ecological science with an emphasis in toxicology, or a person with a Master's degree in toxicology or a related science with an emphasis in toxicology, who is working in the field of toxicology.

Recreational restriction: This restriction should be posted on all public signs and refers to any activities that result in direct water contact (i.e. swimming, water skiing, wading, fly fishing, etc) in the area that has been treated.

Recreational use: Water used for water skiing, boating, boat access, swimming and fishing.

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 specific undesirable plants, sparing other desirable plants; 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 taxon that is vulnerable or declining and could become endangered or threatened in the state without active management or removal of threats.

Threatened: Any taxon 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 taxon in danger of becoming extinct or extirpated from Washington within the foreseeable future if factors contributing to its decline continue. Populations of these taxa 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 and designed to reduce the amount of light penetrating the surface of a water body, thereby reducing plant and algae growth.

Shall: Is required.

Shoreline: The area where water and land meet.

Shoreline Emergent Vegetation: These plants grow along the edges of lakes, ponds, rivers, and streams. They have at least part of their stems, leaves, and flowers emerging above the water surface and are rooted in the sediment (cattails, yellow flag iris, purple loosestrife are all examples).

Sponsor: The private or public entity with a vested interest in the treatment of a water body.

Submersed: Plants growing or generally remaining under the water.

Surface waters of the state: Lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Swimming advisory: An advisory required to be posted on all public signs advising people not to swim in the treated area for “x” number of hours after the treatment occurs.

Swimming restriction: A restriction required to be posted on all public signs stating that no swimming shall take place in the treatment area for “x” number of hours after a pesticide application occurs.

Threatened and endangered aquatic species:

Threatened: An animal species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. <http://www.fws.gov/angered/>, <http://www.noaa.gov/fisheries.html>

Endangered: An animal species in danger of extinction throughout all or a significant portion of its range. <http://www.fws.gov/angered/>, <http://www.noaa.gov/fisheries.html>

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

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

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

Wetland biologist: A biologist who specializes in the study and identification of wetland plant species, and has no personal or private investment in the outcome of the survey performed.

APPENDIX B – PUBLIC NOTICE

The public notice must be published at least *once* each week for *two* consecutive weeks, in a *single* newspaper of general circulation in the county in which the chemical treatment is to take place.

Note: Submit the NOI and public notice to Ecology before the date of the first public notice.

Public Notice Template

_____ (Applicator or Government entity) (Phone number) _____ is seeking coverage under the NPDES Waste Discharge General Permit for aquatic plant and algae management.

(Lake Name) _____ (Acres) _____ Applicant _____ Location _____

(Lake Name) _____ may be treated to control aquatic weeds and algae growth between (date) _____ through (date) _____. The chemicals planned for use are: _____, _____, _____, The total treatment area will not exceed ____ acres.

The following information shall be included in the legal notice.

Any person desiring to present their views to the Department of Ecology regarding this application shall do so in writing within 30 days of the last date of publication of this notice. Comments can also be submitted on the SEPA documents for this project. Submit comments to: Department of Ecology, P.O. Box 47696, Olympia, WA 98504-7696, Attn: Water Quality Program, Aquatic Pesticide Permit Coordinator.

Any water use restrictions and or advisories will be posted near the treatment areas along the private shoreline and public access points. Copies of the application are available by calling the Water Quality Program, Aquatic Pesticide Permit Coordinator at _____.

APPENDIX C – GROUND WATER MONITORING PROTOCOL

Ground water monitoring protocol for in-lake applications of triclopyr

NOTE: This protocol shall be used if a permittee is applying triclopyr for the third time in a three year period (for submersed or floating-leaved plant eradication or control).

3 – 6 months prior to planned treatment

1. Identify all relevant wells within the county inventory within $\frac{1}{4}$ mile of the treatment area.
2. Choose at least one non-artesian well within $\frac{1}{4}$ mile of the treatment area to be the monitored well.
3. The well should be located within the hydrological path of the water body to be treated (for example, if the hydrology shows that any groundwater in an area is moving southwest, choose a well within $\frac{1}{4}$ mile southwest of your treatment area.
4. The well chosen should be no more than 50 feet deep (if no wells are available at this depth, no sampling is required).
5. Contract with a lab accredited through the Department of Ecology for triclopyr and TCP (triclopyr's breakdown product).

1 – 2 weeks prior to treatment

Follow laboratory protocols when taking a baseline water sample to be analyzed for triclopyr and TCP.

1 month after treatment

Follow laboratory protocols when taking a post-treatment water sample to be analyzed for triclopyr and TCP.

Prior to November 30th of the treatment year, report sampling results to Ecology as part of the annual report described in Special Condition S9.

APPENDIX D – ECOLOGY NOTIFICATION TEMPLATE

DEPARTMENT OF ECOLOGY
 Aquatic Treatment Email Form

Email to: _____

From: Company: _____

Cell Phone No: _____

Pre-Treatment Notification

Week of Treatment: _____

Water body name	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	County	Chemicals/products used	Targeted plants & algae	Acres treated	Amount of product applied (lbs. or gallons)	Date treatment occurred

Additional Information: _____

Knowingly submitting false information shall result in permit termination.

APPENDIX E – BUSINESS AND RESIDENTIAL NOTICE TEMPLATE

Herbicide Treatment

Business and Residential Notice

Distribution Date: _____

_____ will be treated with the aquatic herbicide(s)/algaecide(s) on/or between _____.

Product(s) planned for use: _____

Active ingredient(s): _____

Location of Treatment(s):

Treated and potentially affected areas will be sign posted the day of application. The signs will describe any water use restrictions or advisories.

If you are withdrawing water for potable or domestic water use, livestock watering, or irrigation, and have no alternate water source, please contact the applicator (name) _____ at () _____ or (e-mail) _____ to arrange an alternate water supply.

If you would like to request additional notification prior to treatment, or have further questions, please contact me using the information above.

This herbicide treatment is regulated under a permit issued by the Washington State Department of Ecology.

APPENDIX F – POSTING TEMPLATES

CAUTION

The aquatic herbicide 2, 4-D (2, 4-Dichlorophenoxyacetic acid, dimethylamine salt) will be applied under permit to these waters on _____ to control aquatic vegetation.

It is advised that no swimming occur within the treated area during or for 24 hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

WARNING

The aquatic herbicide 2,4-D (2,4 Dichlorophenoxyacetic acid, butoxyethyl ester) will be applied under permit to these waters on _____ to control aquatic vegetation.

Use Restrictions: No swimming in the treatment area during and for 24-hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

This Sign Shall Remain In Place Until 2 Days After Treatment.

CAUTION

Barley straw will be placed under permit in these waters on _____ to control algae.

There are no swimming or recreation restrictions or advisories when using this product.

For more information contact the applicator:

Phone number: (____) _____

Or the Department of Ecology at (____) _____

**THIS SIGN SHALL REMAIN IN PLACE UNTIL 30
DAYS AFTER APPLICATION.**

CAUTION

The biological water clarifier _____
will be applied under permit to these waters on
_____.

There are no swimming or recreation restrictions or
advisories when using this product.

For more information contact the applicator:

Phone number: (____) _____

Or the Department of Ecology at (____) _____

**THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS
AFTER APPLICATION.**

CAUTION

Diquat (Dibromide of 6, 7-dihydrodipyridine (1,2-a:2',1''-c) pyrazinedium) will be applied under permit to these waters on _____ to control aquatic vegetation.

Use advisories: It has been advised that no swimming occur within the treated area during or for 24 hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION

CAUTION

Endothall (Aquathol™) (Dipotassium salt of 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid) will be applied under permit to these waters on _____ to control aquatic vegetation.

Use advisories: It has been advised that no swimming occur within the treated area during or for 24 hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

WARNING

Endothall (Hydrothol 191™) (mono(N,N-dimethylalkylamine) salt of 7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid) will be applied under permit to these waters on _____ to control algae.

Use Restrictions: No contact recreation (wading, swimming, waterskiing, etc.) in the treatment area during and for 24-hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

CAUTION

Fluridone (1-methyl-3-phenyl-5-[3-(trifluoromethyl) phenyl]-4(1H)- pyridinone) will be applied under permit to these waters on _____ to control aquatic vegetation.

There are no swimming or recreation restrictions or advisories when using this product.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

**THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS
AFTER APPLICATION**

CAUTION

Glyphosate (N-(phosphonomethyl) glycine, isopropylamine salt) will be applied under permit to these waters on _____ to control aquatic vegetation.

There are no swimming or recreation restrictions or advisories when using this product.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

**THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS
AFTER APPLICATION.**

CAUTION

Imazapyr (2-(4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl)-3-pyridinecarboxylic acid) will be applied under permit to these waters on _____ to control aquatic vegetation.

There are no swimming or recreation restrictions or advisories when using this product.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

CAUTION

The shading product _____ will be applied under permit to these waters on _____ to control aquatic vegetation and/or algae.

There are no swimming or recreation restrictions or advisories when using this product.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

CAUTION

Sodium carbonate peroxyhydrate will be applied under permit to these waters on _____ to control algae.

It has been advised that no swimming occur within the treated area during or for 12 hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.

CAUTION

Triclopyr TEA (Triethylamine salt of 3,5,6-trichloro-2-pyridyloxyacetic acid) will be applied under permit to these waters on _____ to control aquatic vegetation.

It has been advised that no swimming occur within the treated area during or for 12 hours following treatment.

Applicator to put additional label restrictions or advisories here:

Potable Water Restrictions:

Irrigation Restrictions:

Fishing Restrictions:

Stock Watering Restrictions:

For more information contact the applicator: _____

Phone number: (____) _____

Or the Department of Ecology at (____) _____

THIS SIGN SHALL REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION.