

FACT SHEET FOR THE AQUATIC NOXIOUS WEED NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE GENERAL PERMIT

SUMMARY

The Washington State Department of Ecology (Ecology) is reissuing a permit for the control of noxious and quarantine list weeds in and around Washington State waters. The use of herbicides in waters of the state is conditioned to protect rare aquatic plants and salmonids. Any short term toxicity to aquatic organisms is allowed under the terms of the permit and the water quality modification provisions to perform essential activities that protect other beneficial uses of the waters of the state.

The proposed terms, limitations, and conditions contained herein are tentative and may be subject to change, subsequent to public comments received by Ecology and testimony provided at public hearings. This permit does not authorize a violation of the surface water quality standards, or any other applicable state or federal regulations. Ecology may require any person seeking coverage under this permit to obtain coverage under an individual permit instead. Any surface water application of herbicide found not covered under either the general permit or an individual permit may be considered to be operating without a discharge permit and subject to potential enforcement action.

In *Headwaters, Inc. v. Talent Irrigation District*, the Ninth Circuit Court held that applying an herbicide to navigable waters of the United States did not exempt the irrigation district from having to obtain an National Pollutant Discharge Elimination System (NPDES) permit regardless of whether or not the irrigation district had applied the herbicide in accordance with the label requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

In September 2005, the Ninth Circuit Court issued a decision in *Fairhurst vs. Hagener*. The Fairhurst decision did not reverse the Talent decision, but did conclude that an NPDES permit is not required if a pesticide is intentionally applied to waters of the United States in accordance with a FIFRA label and with no residue or unintended effect. Neither the Court nor the Environmental Protection Agency (EPA) has offered any guidance regarding which applications would result in no residue or unintended effect.

In February 2006, the Pollution Control Hearings Board (PCHB) issued a final order in case #05-101, *Northwest Aquatic Ecosystems vs. Ecology, WTC*. This case focused on a number of issues, one of which was whether or not an applicator must obtain an NPDES permit for the use of federally registered pesticides. The Board ruled that:

“Northwest Aquatic also renewed its summary judgment argument that the Board should rule NPDES permit coverage is not needed for the application of aquatic pesticides, when they are applied in accordance with the Federal Insecticide,

Fungicide, and Rodenticide Act (FIFRA). Northwest Aquatic bases this argument on the recent federal court decision in *Fairhurst v. Hagener*, 422 F.3d 1146 (9th Cir. 2005). The Board ruled on summary judgment that the *Fairhurst* decision does not provide a blanket exemption for the application of aquatic pesticides. Identified conditions must be met before a pesticide can be considered outside the category of a pollutant under the Clean Water Act. The pesticide must: (1) be applied for a beneficial purpose, (2) be applied in compliance with FIFRA, (3) produce no pesticide residue, and (4) produce no unintended effects. *Fairhurst*, 422 F.3d at 1150.

Northwest Aquatic failed to provide any evidence specifically addressing how the use of diquat and endothall on the proposed sites would meet the four factors identified in *Fairhurst*. In the absence of such evidence, *Fairhurst* provides no basis for the Board to conclude a NPDES permit is not required for the proposed pesticide applications.”

On November 21, 2006, EPA issued a final rule entitled “Application of Pesticides to Waters of the United States in Accordance with FIFRA.” This rule replaces the draft interpretive statement EPA issued in 2003 concerning the use of pesticides in or around waters of the United States. The rule states that any pesticide meant for use in or near water that is applied in accordance with the EPA-issued FIFRA label, is not a pollutant under the Clean Water Act. Therefore, such applications are not subject to NPDES permitting. The rule has been appealed and will be heard in the coming months by U.S. District Court.

After EPA issued the rule, Ecology met with stakeholders to seek input on how Ecology should regulate the use of pesticides until the rule appeal concludes. Ecology also provided the public with a three week comment period. Stakeholders affiliated with each of the seven affected permits (mosquito, noxious weed, aquatic plant and algae, irrigation, oyster growers, fish management, and invasive moth) sent comments to Ecology. The majority of comments requested that Ecology continue issuing joint NPDES/state permits to regulate aquatic pesticide applications.

A pesticide applied to the water according to state law is a form of pollution. To apply a pesticide to the water, state law requires that the applicator obtain a short-term modification of the water quality standards from Ecology. Currently, a permit provides the only legal vehicle for implementing that modification. State law only defines two types of permits for surface water discharges – NPDES (federal) and State Waste Discharge (state). Until 2001, Ecology issued modifications using an administrative order. This process was challenged in court and is not a viable regulatory option at this time.

Ecology decided that Washington will continue to use NPDES permits to control the use of aquatic pesticides in and around Washington state waters until the federal courts make a decision on the appeal of the EPA rule. These permits help the state protect human health and the environment by:

- Ensuring pesticides with the lowest risk are used.
- Reducing amounts of pesticides applied.
- Tracking pesticide use.
- Requiring public notifications and postings when waters are treated.
- Monitoring levels of pesticides in the water after treatment.

Ecology believes that these permits provide the best protection of water quality, human health, and the environment at this time. Ecology has taken steps to minimize the regulatory and administrative burden on permittees while ensuring that the permits comply with federal and state laws and court decisions. Ecology will continue to follow the court proceedings surrounding the EPA rule and respond accordingly.

This permit covers the application of herbicides, adjuvants, and marker dyes to surface waters of the state for the control of state listed noxious and quarantine weeds. The permit covers both direct and indirect application of herbicides to water. The Permittee is required to monitor (depending on the type of herbicide application), notify the public, post treatment sites, and provide annual reports to Ecology. The issuance of this permit will revoke the existing permit, originally issued in 2002. This new permit no longer covers the control of submersed plants in lakes or ponds. For this activity, please refer to the Aquatic Plant and Algae Management General Permit.

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INTRODUCTION

This fact sheet is accompanies the reissued Aquatic Noxious Weed Control National Pollutant Discharge Elimination System (NPDES) General Permit. Ecology is proposing to reissue this permit. This permit will allow discharge of wastes from aquatic noxious weed herbicide applications and from non-chemical methods associated with herbicide application to control noxious and quarantine weeds to surface waters of the State of Washington, which are also waters of the United States, under the provisions of chapters 90.48, 90.52, and 90.54 Revised Code of Washington (RCW) and the Federal Water Pollution Control Act (FWPCA) as amended. This fact sheet explains the nature of the proposed discharges, Ecology's decisions on limiting the pollutants in the wastewater, and the regulatory and technical basis for these decisions.

The Federal Clean Water Act (FCWA, 1972, and later modifications (1977, 1981, and 1987), established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the FWPCA is the National Pollutant Discharge Elimination System of permits (NPDES permits). EPA administers these permits. EPA delegated responsibility for administering the NPDES permit program to the State of Washington based on Chapter 90.48 RCW, which defines Ecology's authority and obligations in administering the wastewater discharge permit program.

The establishment of a general permit for Aquatic Noxious Weed Control is appropriate due to the similar environmental fate specific to each permitted herbicide, the specific requirements of RCW 90.48.445 and 90.48.448, the statewide scope of aquatic noxious weed control, and the significant reduction of resources necessary for permit handling. However, Ecology may still require individual permits in those instances where a proposed activity requires more detailed guidance, or when an individual applicator so desires and Ecology approves.

The regulations adopted by the state include procedures for issuing general permits (Chapter 173-226 WAC), water quality criteria for surface waters (Chapter 173-201A WAC), groundwater standards (Chapter 173-200 WAC) and sediment management standards (Chapter 173-204 WAC). These regulations require that Ecology issue a permit before allowing discharge of wastes to waters of the state. The regulations also establish the basis for effluent limitations and identify other requirements Ecology must include in the permit. WAC 173-226-110 requires Ecology to prepare a draft permit and an accompanying fact sheet. WAC 173-226-130 specifies public notice of the draft permit, public hearings, comment periods, and public notice of issuance before Ecology can issue the general permit. This fact sheet, application for coverage, and draft permit are available for review (see Appendix A-- Public Involvement of the fact sheet for more detail on the Public Notice procedures).

Permittee representatives and members of a permit advisory group reviewed the draft permit and fact sheet. Ecology has corrected errors and omissions identified in this review before going to public notice.

Following the close of the public comment period, Ecology will summarize the substantive comments and respond to each comment. The summary and response to comments will become part of the file on the permit. Parties submitting comments will receive a copy of Ecology's response. The original fact sheet will not be revised after the public notice is published. Appendix B - - Response to Comments will summarize comments and the resultant changes to the permit.

BACKGROUND

In May, 1996, the Talent Irrigation District (TID) in southern Oregon applied the herbicide acrolein to an irrigation canal. A leaking waste gate resulted in the discharge of treated water into Bear Creek causing a fish kill.

Headwaters, Inc. and Oregon Natural Resources Council filed a Clean Water Act citizen suit against the Talent Irrigation District (TID) for applying aquatic herbicide into a system of irrigation canals. Reversing a district court's opinion, the Ninth Circuit decision held that application of the herbicide in compliance with the labeling requirements of the FIFRA did not exempt TID from having to obtain an NPDES permit, and that the irrigation ditches were "waters of the United States" under the Clean Water Act (March 12, 2001).

Ecology is proposing to issue the general permit so that the application of aquatic herbicides for the control of noxious and quarantine weeds will comply with the Clean Water Act. For purposes of this fact sheet, the term noxious weed also includes the weeds on the quarantine list (WAC 16-752-500 through 525). These quarantine weeds when found are treated as noxious weeds. They are not on the noxious weed list only because they are not yet present in the state or are not at great distribution levels.

EPA administers FIFRA. FIFRA requires that all persons who apply pesticides classified as restricted use be certified according to the provisions of the act or that they work under the supervision of a certified applicator. Commercial and public applicators must pass a "core" examination to demonstrate a practical knowledge of the principles and practices of pest control and safe use of pesticides. In addition, applicators using or supervising the use of any restricted use pesticides purposefully applied to standing or running water (excluding applicators engaged in public health related activities) must pass an additional exam to demonstrate competency as described in the code of federal regulations (CFR) as follows:

"Aquatic applicators shall demonstrate practical knowledge of the secondary effects which can be caused by improper application rates, incorrect formulations, and faulty application of restricted pesticides used in this category. They shall demonstrate practical knowledge of various water use situations and the potential of downstream effects. Further, they must have practical knowledge concerning potential pesticide effects on plants, fish, birds, beneficial insects and other

organisms which may be present in aquatic environments. Applicants in this category must demonstrate practical knowledge of the principals of limited area application.” (40 CFR 171.4)

Any person wishing to apply pesticides to waters of the state must either be licensed as an aquatic pesticide applicator by the Washington State Department of Agriculture, or operating under the supervision of a licensed applicator. For information on licensing requirements and testing, please visit <http://www.agr.wa.gov/PestFert/LicensingEd/Licensing.htm>.

Human activities have created unwanted consequences in native aquatic ecosystems. While aquatic plants provide habitat and food for aquatic life, nutrient additions can cause increased plant growth and the introduction of non-native plants can cause shifts in the native ecosystem. Non-native invasive plants often do not have any predators or parasites, and may outcompete beneficial native plants. A major reason for the existence of weed problems is the introduction of exotic species from other locations. These plants quickly replace native vegetation and can create large monocultures. This group includes the most troublesome weeds, such as *Spartina*, Japanese knotweed, purple and garden loosestrife, and parrotfeather. When a non-native plant has the potential to lessen biodiversity and negatively impact beneficial uses of waters of the state, state Noxious Weed Control Board may be list it as a noxious weed.

HERBICIDES USED FOR NOXIOUS WEED CONTROL

The state currently allows seven herbicides in Washington’s aquatic environment, including diquat, endothall, fluridone, 2, 4-D, triclopyr, imazapyr, and glyphosate. Two of these (diquat and endothall) function as contact herbicides, and the other five function as systemic herbicides. Contact herbicides kill only the parts of the plant they come in contact with, while systemic herbicides kill the plant all the way to the roots. Triclopyr and 2, 4-D are selective herbicides, meaning they only effectively kill certain types of plants. The rest of the herbicides listed above are non-selective or broad-spectrum herbicides.

Aquatic herbicides can disappear from treated water by dissipation, adsorption to bottom sediments, volatilization, absorption by plants or animals, or by dilution. Dissipation refers to the breakdown of an herbicide into simpler chemical compounds. Herbicides can dissipate by photolysis (broken down by light), hydrolysis, microbial degradation, or metabolism by plants or animals. Even if dissipation is slow, disappearance due to processes such as adsorption to bottom sediments can make an herbicide biologically unavailable.

For more information about noxious and quarantine weeds see the following websites:

Ecology's website address:

<http://www.ecy.wa.gov/programs/wq/plants/weeds/index.html>.

The Washington State Noxious Weed Control Board's web site address:

http://www.wa.gov/agr/weedboard/weed_info/contents.html.

Agriculture's Quarantine Weeds list:

http://www.wa.gov/agr/weedboard/weed_list/prohibited.html.

HISTORY OF AQUATIC HERBICIDE ENVIRONMENTAL REVIEW

In 1980, Ecology completed an *Environmental Impact Statement* (EIS) for statewide program guidance in the issuance of short-term modifications for herbicides used in aquatic plant control. Since 1980, the industry has developed a number of mechanical and physical methods (i.e., mechanical harvesting, rotovation, bottom barriers, and cutters) for aquatic vegetation control. Research and development during the past two decades has identified various methods of biological control. Changes also occurred in the understanding of aquatic ecosystems, including the role of wetlands and the need to consider and control impacts such as nutrient and sediment loading within the total watershed of any particular water body. To address these changes and the broadening field environmental choices in aquatic plant management, Ecology updated and supplemented the EIS with the *Final Supplemental Environmental Impact Statement for the Aquatic Plant Management Program* (SEIS), dated January 1992.

The current supplement, SEIS 2001, updates the 1992 SEIS and assesses new aquatic herbicides or permitted herbicides with recent label changes, for use in Washington waters. The Agency Steering Committee for Update of the 1992 Aquatic Plant SEIS selected herbicides on the basis of registration status, desirability for use and direction from Senate Substitute Bill 5424 (1999, codified in RCW 90.48.447).

Ecology serves as the lead agency for the current supplemental update to the SEIS, but has received advisory and review assistance from the Agency Committee for Update of the 1992 Aquatic Plant SEIS (The Steering Committee). The Steering Committee includes representatives from the State Departments of Agriculture, Health, Fish and Wildlife, Natural Resources, Ecology and the State Noxious Weed Control Board - - all agencies with jurisdiction and/or interest in aquatic plant control. The Washington State Department of Agriculture (WSDA) regulates pesticide applicators, and registers pesticides for use in the state. WSDA, in collaboration with the State Noxious Weed Control Board, controls noxious plants within the state. The Department of Health is charged with protection of human health. The Department of Fish and Wildlife receives requests for Hydraulic Project Approvals (HPA's) to implement various physical and mechanical methods and is charged with protecting fish and wildlife. The legislature charged the departments of Natural Resources and Ecology with protecting and managing

natural resources; they therefore have concerns with the potential impact of various plant control methods on natural resources. The legislature mandated that the Departments of Fish and Wildlife and Natural Resources develop programs for controlling particular noxious emergent species on state-owned or managed lands.

The 1980 EIS evaluated the impacts of endothall, diquat, dichlobenil (2,6-dichlorobenzonitrile), 2,4-D [(2,4-dichlorophenoxy) acetic acid], copper sulfate, komeen and simazine - - all aquatic herbicides used for control of nuisance aquatic vegetation. Between 1980 to 1992, diquat, dichlobenil, simazine, and 2,4-D were banned for aquatic use, and replaced by the herbicides fluridone and glyphosate. The 1992 SEIS introduced an integrated pest management approach as the preferred method of control. It also evaluated the use of chemical controls only, physical controls only, biological controls only, continuation of current practices, and taking no action relative to controlling nuisance aquatic plants. The 1992 SEIS evaluated and allowed the use of copper, endothall, fluridone and glyphosate to control various types of aquatic plants.

SEIS 2001 contains an update of the alternatives included in the 1992 supplement and evaluates two additional sets of herbicides. The first set includes 2,4-D formulations registered for aquatic use by the state and endothall formulations Hydrothol® 191 and Aquathol®, completed in May 2000. A second set of assessments, completed in 2002, evaluated diquat, triclopyr, and copper compounds. Ecology and WSDA completed an assessment of the herbicide imazapyr in 2004. Ecology prohibits the use of copper-based compounds in lakes or rivers that drain to other state surface waters.

REGULATORY POLLUTION REDUCTION REQUIREMENTS

Federal and state regulations require that Ecology establish effluent limitations in an NPDES permit based on either a technology standard or a water quality standard. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). Ecology must apply the more stringent of these two limits, either technology- or water quality-based for each of the parameters of concern.

TECHNOLOGY BASED WATER QUALITY PROTECTION REQUIREMENTS

Sections 301, 302, 306, and 307 of the FWPCA established discharge standards, prohibitions, and limits based on pollution control technologies. These technology-based limits are "best practical control technology" (BPT), "best available technology economically achievable" (BAT), and "best conventional pollutant control technology economically achievable" (BCT). The permit writer uses a "best professional judgment" (BPJ) determination to comply with BPT/BAT/BCT.

The state has similar technology-based limits which are described as: "all known, available, and reasonable methods of control, prevention, and treatment" (AKART) methods. RCW 90.48.010, RCW 90.48.520, 90.52.040 and RCW 90.54.020 refer to AKART. The federal technology-based limits and AKART are similar but not equivalent. AKART: (1) may be established for an industrial category or on a case-by-case basis; (2) may be more stringent than federal regulations; and (3) includes not only treatment, but also BMP's such as prevention and control methods (i.e. waste minimization, waste/source reduction, or reduction in total contaminant releases to the environment). Ecology and the EPA concur that, historically, most discharge permits have determined state AKART as equivalent to federal BPJ determinations.

EPA has regulated the pesticide application industry under the terms of FIFRA, in part, by developing label use requirements. In developing label use requirements, EPA requires the pesticide manufacturer to register each pesticide and provide evidence that the pesticide will work as promised and that unacceptable environmental harm will be minimized.

This general permit authorizes the noxious weed control activities mandated by the state legislature in a manner that complies with federal and other state requirements. The state statute that requires AKART also requires control of noxious weeds. The Washington State legislature declared in SB5670 (1999), prior to the Talent decision that:

“(1) the director shall issue or approve water quality permits for use by federal, state, or local governmental agencies and licensed applicators for the purpose of using, for aquatic noxious weed control, herbicides and surfactants registered under state or federal pesticide control laws, and for the purpose of experimental use of herbicides on aquatic sites, as defined in 40 C.F.R. Sec. 172.3. The issuance of the permits shall be subject only to compliance with: Federal and state pesticide label requirements, the requirements of the federal insecticide, fungicide, and rodenticide act, the Washington pesticide control act, the Washington pesticide application act, and the state environmental policy act, except that:

(a) When the director issues water quality permits for the purpose of using glyphosate and surfactants registered by the department of agriculture to control spartina, as defined by RCW 17.26.020, the water quality permits shall contain the following criteria:

(i) Spartina treatment shall occur between June 1st and October 31st of each year unless Ecology, the department of agriculture, and the department of fish and wildlife agree to add additional dates beyond this period, except that no aerial application shall be allowed on July 4th or Labor Day and for ground application on those days the applicator shall post signs at each corner of the treatment area;

(ii) The applicator shall take all reasonable precautions to prevent the spraying of nontarget vegetation and nonvegetated areas;

- (iii) A period of fourteen days between treatments is required prior to re-treating the previously treated areas;*
- (iv) Aerial or ground broadcast application shall not be made when the wind speed exceeds ten miles per hour; and*
- (v) An application shall not be made when a tidal regime leaves the plants dry for less than four hours.*

(b) The director shall issue water quality permits for the purpose of using herbicides or surfactants registered by the department of agriculture to control aquatic noxious weeds, other than spartina, and the permit shall state that aerial and ground broadcast applications may not be made when the wind speed exceeds ten miles per hour.

(c) The director shall issue water quality permits for the experimental use of herbicides on aquatic sites, as defined in 40 C.F.R. Sec. 172.3, when the department of agriculture has issued an experimental use permit, under the authority of RCW 15.58.405(3). Because of the small geographic areas involved and the short duration of herbicide application, water quality permits issued under this subsection are not subject to state environmental policy act review.

(2) Applicable requirements established in an option or options recommended for controlling the noxious weed by a final environmental impact statement published under chapter 43.21C RCW by the department prior to May 5, 1995, by the department of agriculture, or by the department of agriculture jointly with other state agencies shall be considered guidelines for the purpose of granting the permits issued under this chapter.”

And later,

“(4) As used in this section, "aquatic noxious weed" means an aquatic weed on the state noxious weed list adopted under RCW 17.10.080.”

All waste water discharge permits issued by Ecology must incorporate requirements to implement reasonable prevention, treatment, and control of pollutants.

In the Washington Pesticide Control Act, RCW 17.15, the legislature established that prevention of pollution in this case is reasonable only in the context of an Integrated Pest Management Plan (IPM). IPM's require the investigation of all control options, but do not require non-chemical pest controls as the preferred option. The goal of IPM's is to establish the most effective means of control whether chemical, non-chemical, or a combination. Most noxious weed control strategies include such a combination of controls.

The Talent decision establishes that aquatic pesticides become waste in the water after the pesticide has performed its intended action and the target organisms are controlled. Treatment of the pollutants addressed in this permit poses difficulties due to the diffuse nature and low concentrations that exist after the pesticides have become waste.

This permit addresses the control of pollutants, as has been demonstrated previously in isolated situations where a routine application of the preferred pesticide may have caused unwanted impacts on non-target organisms. Pesticide application areas can be isolated using underwater curtains and other barriers when downstream water users raise concerns or sensitive native plants or fisheries share the water body. However, the state legislature clearly intended to limit noxious weed control to FIFRA label requirements and the FWPCA. This permit does not require the use of underwater barriers during pesticide treatments.

WSDA occasionally authorizes experimental use of pesticides not yet registered for a particular use or application rate. These experimental projects are usually small in scope and infrequent. This permit allows experimental use in aquatic environments in order to promote alternatives that may prove more effective while reducing impacts to non-target organisms.

WSDA issues experimental use permits for pesticides in Washington State. WSDA requires Washington State Experimental Use Permits (WSEUP) for all experiments involving pesticides that are not federally registered or uses not allowed on the federally registered pesticide label. WSDA limits the amount of an experimental use pesticide distributed or used for testing purposes after a proponent obtains a written permit from WSDA. WSDA grants experimental use permits for gathering data in support of registration under FIFRA Section (3) or Section 24(c).

In most situations only a state WSEUP is required for the use of an experimental pesticide. When a proponent will conduct a small-scale test on a cumulative total of more than 10 acres of land per pest on terrestrial sites or on more than one surface acre of water per pest occurs, the proponent must obtain a federal experimental use permit in addition to a state permit. When testing for more than one target pest at the same time and in the same locality, the 10-acre limitation encompasses all of the target pests. Any person may apply to the EPA for a federal experimental use permit for pesticides, which are usually valid for only one year. Applicants holding a valid federal experimental use permit must also apply for and be granted a state experimental use permit before initiating any shipment or use of the pesticide in Washington.

This permit is not required when the project is less than one acre in size, and a WSEUP has been obtained. Coverage under this general permit is required whenever working under a Federal Experimental Use Permit.

WATER QUALITY BASED REQUIREMENTS

The noxious and quarantine weed control activities affect surface waters of the State. Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington protect state surface waters.

The noxious weed control activities which discharge to surface waters must meet the state water quality standards as given in chapter 173-201A WAC. The characteristic beneficial uses of surface waters include, but are not limited to, the following: domestic, industrial and agricultural water supply; stock watering; the spawning, rearing, migration and harvesting of fish; the spawning, rearing and harvesting of shellfish; wildlife habitat; recreation (primary contact, sport fishing, boating, and aesthetic enjoyment of nature); commerce; aesthetics and navigation.

RCW 90.48.035 authorizes establishment of water quality standards for waters of the state. The state has implemented water quality standards in chapter 173-201A WAC. Ecology must condition all waste discharge permits issued pursuant to NPDES or SWD regulations in such a manner that all authorized discharges must meet state water quality standards. Standards include an "antidegradation" policy which requires the protection of beneficial uses.

Discharges from noxious weed control activities may contain pollutants which, in excessive amounts, would have a reasonable potential to cause, or contribute to, violations of state water quality standards due to the presence of toxic materials. Ecology has deemed that, when properly applied and handled in accordance with the terms and conditions of the general permit, noxious weed control activities will comply with state water quality standards, will maintain and protect the existing characteristic beneficial uses of the surface waters of the state, and will protect human health. New information regarding previously unknown environmental and human health risks may cause Ecology to reopen this general permit.

This general permit does not authorize mixing or dilution zones for any discharge to surface waters by the Permittee. The short term water quality modification provisions of the permit will allow the discharges authorized by the general permit to cause a temporary diminishment of some beneficial uses while the water body is altered to improve other beneficial uses.

The activities authorized by this general permit do not have a reasonable potential to cause a violation of state water quality standards (WAC 173-201A) so long as the activities meet the conditions of the short term water quality modification. The water quality modification provides for an exception to meeting certain provisions of the state water quality standards such as meeting all beneficial uses all the time. This permit allocates a temporary zone of impact on beneficial uses for activities covered under this permit, but the impact must be transient, and must allow for full restoration of water quality and protection of beneficial uses upon project completion. The conditions of the permit constitute the requirements of a water quality modification.

Washington's water quality standards include 91 numeric human health-based criteria that Ecology must consider in issuing NPDES permits. EPA promulgated these criteria for the state in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

Ecology has determined that the applicant's discharge does not contain chemicals in concentrations of concern for human health based on existing data or knowledge.

GROUND WATER QUALITY LIMITS

The Ground Water Quality Standards, (chapter 173-200 WAC), protect beneficial uses of ground water. Permits issued by Ecology must not allow violations of those standards (WAC 173-200-100). This permit does not allow the use of any pesticides expected to contaminate groundwater. In the event there is a concern, Ecology can issue orders requiring groundwater and well monitoring for different pesticides under this permit.

SEDIMENT QUALITY

Ecology has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that Ecology may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

Ecology has determined through a review of the discharger characteristics and effluent characteristics that this discharge has no reasonable potential to violate the Sediment Management Standards.

Researchers conducted a 3-year study to assess the short- and long-term fate and potential effects to marine biota associated with repeated applications of Rodeo® to control smooth cordgrass in a southwestern Washington estuary. Researchers established plots at each of three intertidal locations in Willapa Bay on exposed mudflats and along the edge of a Spartina meadow. Researchers hand sprayed the plots with Rodeo® (5% solution) and LI-700® (2% solution) during July 1997 and 1998.

Glyphosate (the active ingredient in Rodeo®) concentrations in sediment from bare mudflat plots declined 88% to 96% from 1 day post-treatment in 1997 to 1 year after the second Rodeo® applications in 1999. In contrast, glyphosate concentrations in Spartina plots increased 231% to 591% from 1997 to 1999 because Spartina rhizomes likely held the glyphosate in tissue and did not readily metabolize or exude it. Comparison of concentrations from mudflat and Spartina plots with toxicity test values for marine biota indicates that under worst-case conditions short- and long-term detrimental effects to aquatic biota from repeated application of Rodeo® for Spartina control would be highly unlikely.”(Kilbride and Paveglio, 1999)

ANTIDEGRADATION

Washington's Antidegradation Policy states that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the

natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall be protected. More information on the State Antidegradation Policy can be obtained in WAC 173-201A-070.

Antidegradation by definition applies to site-specific conditions. A general permit applies to sites statewide. Discussion of antidegradation for each site covered under the draft permit is impractical. The permit requires discharges to comply with water quality standards. Compliance with standards typically affords the protection necessary to prevent ongoing degradation of a waterbody from aquatic pesticide discharges.

SEPA COMPLIANCE

Ecology has conducted numerous environmental impact evaluations for noxious weed control activities. The permit conditions the use of pesticides to mitigate environmental impacts of concern noted in these evaluations.

SPECIAL CONDITIONS

PERMIT COVERAGE

Activities Covered under the Permit

Washington State Water Quality statutes and regulations do not allow the discharge of pollutants to waters of the state without permit coverage (Chapter 173-201A WAC, RCW 90.48.080, and RCW 90.48.160). Herbicides, adjuvants, and marker dyes are potential pollutants, and therefore require a discharge permit to be applied to waters within Washington State.

This permit covers the use of herbicides, adjuvants, and marker dyes for the control of noxious weeds and quarantine list weeds in and near surface waters in Washington State.

Eradication of aquatic noxious weeds is required by state statute. The Washington State legislature declared in RCW 90.48.445 that:

“(1) the director shall issue or approve water quality permits for use by federal, state, or local governmental agencies and licensed applicators for the purpose of using, for aquatic noxious weed control, herbicides and surfactants registered under state or federal pesticide control laws, and for the purpose of experimental use of herbicides on aquatic sites, as defined in 40 C.F.R. Sec. 172.3. The issuance of the permits shall be subject only to compliance with: Federal and state pesticide label requirements, the

requirements of the federal insecticide, fungicide, and rodenticide act, the Washington pesticide control act, the Washington pesticide application act, and the state environmental policy act, except that...:

(b) The director shall issue water quality permits for the purpose of using herbicides or surfactants registered by the department of agriculture to control aquatic noxious weeds, other than spartina, and the permit shall state that aerial and ground broadcast applications may not be made when the wind speed exceeds ten miles per hour.

Activities Excluded From Coverage Under This Permit

The permit does not apply to activities occurring in a number of different water body types. Stormwater and wastewater detention and retention ponds are constructed (man-made) systems and are usually regulated under other permits (such as industrial or municipal stormwater permits). For ponds regulated under other permits that condition chemical use for plant and algae control or eradication, permit coverage under this permit is not required.

Retention and detention ponds not regulated under other permits may also be treated without applying for coverage under this permit if the pond is either (1) dry or, (2) if it contains water, and will not discharge to surface waters within two weeks of treatment. Ecology believes that both dry conditions and the two week holding time will be sufficient to allow the dissipation of the product prior to possible discharge to surface waters.

This permit exempts any enclosed constructed water body that is five acres or less in surface area, which will not discharge to surface waters within two weeks of treatment. Ecology believes the two week holding time will be sufficient to allow the dissipation of the product prior to possible discharge to surface waters.

This permit also exempts aquatic plant control in seasonally dry wetlands if the herbicides applications comply with the FIFRA label and if the herbicides will not be biologically available when the area is inundated with water. Ecology believes that if these conditions are met, the treatment poses no potential to violate the state's surface water quality standards.

Geographic Area Covered

This permit applies to the application of products to surface waters throughout the state. Surface waters of the state are defined as "lakes, rivers, ponds, streams, inland waters, salt waters, wetlands, and all other surface waters and water courses within the jurisdiction of the state of Washington." (Chapter 173-201A WAC)

Aquatic weeds have the potential to occur in or near virtually any freshwater or semi-aquatic site in Washington State. These sites include but are not limited to riparian areas, wetlands, marshes, rivers, year round and seasonal streams, lakes, ponds, wet pastures, and brackish estuaries.

PERMIT APPLICATION REQUIREMENTS

Who Applies for Coverage

According to state regulations, the entity intending to discharge the material into waters of the state must apply for coverage (RCW 90.48, Chapter 173-216-070 WAC, and Chapter 173-226-210 WAC). In most cases, the applicator most closely fits the definition of owner/operator of the discharging entity and will be the permittee. Ecology has established that the Permittee is any government entity, private applicator, or non-governmental organization conducting noxious weed control. When the weed being controlled is covered under the authority of a funded program at WSDA, individuals, governments, and non-governmental organizations may cooperate under the coverage issued to WSDA.

Applying for Coverage

Ecology bases the conditions for coverage under this general permit on state regulations found in WAC 173-216 and WAC 173-226.

Ecology will not issue coverage until at least 60 days following the receipt of a completed application for coverage. In the event that Ecology receives relevant comments on the Application for Coverage, Ecology may need to work with the applicant prior to issuing permit coverage. In this instance, obtaining permit coverage may require more than 60 days.

Ecology derived the requirements for public notice when applying for coverage under the general permit from state regulation, WAC 173-226-130.

COMPLIANCE WITH STANDARDS

WAC 173-201A-240 states that “toxic substances shall not be introduced above natural background levels in waters of the state which have the potential either singularly or cumulatively to adversely affect characteristic water uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health, as determined by the department.”

Ecology periodically reviews surface water quality data to determine if water bodies meet criteria. Section 303(d) of the Clean Water Act requires that waters not meeting criteria undergo an evaluation of the cause and amount of the contaminant. Subsequent limits are

placed on the amounts of pollutants allowed to be discharged and published in Total Maximum Daily Load (TMDL) reports.

Ecology has the authority and responsibility to periodically update the water quality standards, 90.48.035 RCW. In accordance with WAC 173-226-230(1)(b), a general permit may be modified when the state water quality standards have been modified through formal process. No “grandfather” clause is available that would allow a permittee to continue under the old standards.

The latest updates of the State's water quality standards were approved by the EPA in 2005. This permit is written to comply with the new surface water quality standards. If a new list is approved by EPA during the life of this permit, any changes to the permit will result in formal notification of all permittees in accordance with Chapter 90.48 RCW.

Pesticide applications subject to the permit to 303(d) water bodies may have additional limits and conditions imposed upon them. The two parameters of concern identified in the permit are dissolved oxygen and phosphorus. Water bodies listed on the 303(d) list as impaired for dissolved oxygen are either year-round problems, or seasonally low dissolved oxygen levels. Low dissolved oxygen levels in a water body can adversely affect fish populations. Contact herbicides, which primarily cause a burning back of the plants treated, have the greatest potential to adversely affect dissolved oxygen concentrations within a water body. The goal of a contact herbicide treatment is usually to remove all of the plants from a specific area for the purposes of recreation. As a result of the treatment, a massive die-back of plant life can occur in a specific area, creating a rapid expansion in the bacteria population (feeding on dying plants). The bacteria can use the dissolved oxygen normally available in the system for other organisms.

The 303(d) water bodies listed for phosphorus are a concern because when plants die after an herbicide treatment, they release sequestered phosphorus into the water column. The rapid release of phosphorus can trigger algae blooms, which can adversely impact human and environmental health.

DISCHARGE LIMITATIONS

Authorized Discharges

This permit allows the use of products regulated under FIFRA, as well as any product category identified in the permit that could potentially require modification of the state water quality standards if the conditions of this permit are met. These discharges are allowed in accordance with the terms of WAC 173-201A-110 and Chapter 90.48 RCW.

Prohibited Discharges

RCW 90.48.080 states that “it shall be unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to be thrown, run, drained, allowed to seep or otherwise discharged into such waters any

organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the department.”

Products Allowed For Use Under this Permit

The permit conditions the use of seven federally registered active ingredients. These eight active ingredients have undergone extensive risk assessment and review by Ecology prior to approval. Ecology has mitigated for possible risks by conditioning the use of these products under the general permit. Ecology determined that, if used according to the label and in compliance with the conditions of this general permit, these active ingredients will not violate water quality standards. By approving active ingredients rather than brands, Ecology will not conduct a new risk assessment for each new brand that is released onto the market.

The permit provides a process for new active ingredients to be approved for use under the permit. The new ingredients must undergo review by both the Washington State Department of Agriculture (WSDA) and Ecology (Special Condition S11), and upon Ecology’s approval, the permit will be modified to allow their use.

This permit also provides for the use of specific adjuvants that have received WSDA approval, Ecology approval, and a SEPA review. The adjuvants identified in the permit have been reviewed by WSDA for toxicity and potential environmental impacts. In the future, adjuvants may be added to the permit after obtaining approval from both WSDA and Ecology, completing SEPA review, and being placed on the list maintained on Ecology’s website.

The permit allows the use of marker dyes. This permit does not require a licensed pesticide applicator for the application of these products, as they are not identified as pesticides and are not regulated under FIFRA.

Experimental Use Permits

Experimental Use Permits (EUPs) are regulated by section 5(f) of FIFRA by EPA and Chapter 15.58.405(3) RCW by WSDA.

Specific Restrictions on the Application of Pesticides

This table details restrictions on herbicide and algaecide active ingredients that are imposed by Ecology (over and above the federal labeling restrictions). These decisions were made on consultation with experts in the field of toxicology and fisheries. Many of the restrictions are derived from the risk assessments and Environmental Impact Statements prepared for each chemical.

The second column of the table refers to fish timing window restrictions. Ecology provided WDFW with information about specific active ingredients that risk assessments indicated could adversely affect juvenile salmon, steelhead, and bull trout populations in

Washington waters. If the column states “yes,” WDFW has provided Ecology with certain specific windows of time when these active ingredients can be applied in individual water bodies.

Ecology obtained the recreational and/or swimming restrictions/advisories listed in the third column by consulting a toxicologist at the Department of Health. Some of these may mirror label requirements, but most are more stringent requirements. An advisory requires that the public at least be notified via posting for those substances that may impact people swimming in the treated area for a time period following treatment.

The limitations noted in the fourth column of Table 1 are imposed by Ecology in addition to any federal label restrictions based on the mitigations recommended while the risk assessments were being prepared on each active ingredient. These are based on the best scientific information available at the time of chemical approval and Ecology’s best professional judgment.

Other specific restrictions detailed in column 4 are general restrictions imposed either by Ecology based on best professional judgment, or in the case of 2, 4-D, by a federal court decision affecting product use.

POSTING REQUIREMENTS

Ecology adopted the requirements for public notice, posting, and legal notice of pesticide applications from previous public notification requirements in Ecology-issued orders and short-term modifications. In some cases, the public notification requirements were based on EPA FIFRA label requirements. In all other cases, the requirements are based on Ecology’s best professional judgment and the public’s right to know.

MONITORING

Ecology may require monitoring of residual pesticides to confirm assumptions of persistence when applications are performed in compliance with the pesticide label. Permittees may propose and gain approval for a monitoring plan in lieu of monitoring each application for herbicide applications near stock watering and drinking water withdrawal sites, where native vegetation or threatened or endangered species are likely to be affected, or applications to sites where the total area of treatment exceeds ten acres. Ecology intends to use these provisions to gather information to confirm the assumptions of persistence and toxicity relative to the rate of application. This information may better define the period of temporary diminishment of beneficial uses. No monitoring is required for freshwater emergent projects using the herbicides glyphosate or imazapyr. Permittees may request reduced or no monitoring if current monitoring has shown little to no adverse environmental impacts from the treatments.

RCW 90.48.260 gives Ecology the authority to establish inspection, monitoring, entry, and reporting requirements. WAC 173-220-210 gives Ecology the authority to require monitoring of the treated waters to determine the effects of discharges on surface waters of the state.

SAMPLING AND ANALYTICAL PROCEDURES

With the exception of certain parameters used for process control the general 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.

REPORTING AND RECORDKEEPING

Section S8 of the permit contains specific conditions based on Ecology's authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-226-090).

SPILL PREVENTION AND CONTROL

WAC 173-216-110 requires that any site covered under a state waste discharge permit shall maintain materials available on site for the control of overflow or spills, and requires upkeep and maintenance associated with prevention of spills and contaminating situations. Spills can occur at sites receiving coverage under this permit.

The permittee must be prepared to mitigate for any potential spills and, in the event of a spill onsite, perform the necessary cleanup, and notify the appropriate Ecology regional office (see RCW 90.48.080, and WAC 173-216-110).

PRODECURE FOR APPROVAL OF PRODUCTS NOT SPECIFIED IN THE CURRENT PERMIT

The pesticide industry indicated that they might lose the use of some pesticides in the current EPA reregistration process. They expressed concern about the length of time necessary to issue a permit modification to allow the use of alternatives not yet approved. In response to this concern the permit allows use of other pesticides after approval by EPA, the Washington State Department of Agriculture, and completion of a multi-agency State Environmental Policy Action and risk assessment. Ecology may complete a major modification of the permit and add new pesticides to the permit.

RESPONSIBILITY TO COMPLY WITH OTHER REQUIREMENTS

Ecology has established, and will enforce, limits and conditions expressed in the general permit for the discharge of waste streams containing various pesticides registered for use by the EPA and the Washington State Department of Agriculture. These agencies will enforce the use, storage and disposal requirements expressed on pesticide labels. The

Permittee must comply with both the pesticide label requirements and the general permit conditions. The general permit does not supersede or preempt federal or state label requirements or any other applicable laws and regulations. General permit Condition G11 reminds the Permittee of this fact.

GENERAL CONDITIONS

General conditions are based directly on State and Federal law and regulations and are included in all aquatic pesticide general permits.

General Conditions are based directly on state and federal law and regulations and have been standardized for all NPDES permits issued by the Ecology. Some of these conditions were developed for different types of discharges. Many of these regulations are not applicable to the application of herbicides.

Condition **G1** requires discharges and activities authorized by the draft permit to be consistent with the terms and conditions of the permit in accordance with 40 CFR 122.41.

Condition **G2** requires the Permittee to comply with all conditions of the permit in accordance with 40 CFR 122.41(a).

Condition **G3** requires the Permittee to allow Ecology to access the facility and conduct inspections of the facility and records related to the permit in accordance with 40 CFR 122.41(i), RCW 90.48.090, and WAC 173-220-150(1)(e).

Condition **G4** requires the Permittee to notify Ecology when facility changes may require modification or revocation of permit coverage in accordance with 40 CFR 122.62(a), 40 CFR 122.41(l), WAC 173-220-150(1)(b), and WAC 173-201A-060(5)(b).

Condition **G5** identifies conditions that may result in modifying or revoking the general permit in accordance with 40 CFR 122.62, 40 CFR 124.5, and WAC 173-226-230.

Condition **G6** identifies conditions for revoking coverage under the general permit in accordance with 40 CFR 122.62, 40 CFR

Condition **G7** requires Permittees to report anticipated non-compliances in accordance with 40 CFR 122.41(l)(2).

Condition **G8** requires that the Permittee notify Ecology in writing of the need to transfer permit coverage to another entity or individual.

Condition **G9** requires the Permittee to comply with more stringent toxic effluent standards or prohibitions established under Section 307(a) of the Clean Water Act in accordance with 40 CFR 122.41(a)(1), WAC 173-220-120(5), and WAC 173-201A-040.

Condition **G10** incorporates all other requirements of 40 CFR 122.41 and 122.42 by reference.

Condition **G11** prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations in accordance with 40 CFR 122.5(c).

Condition **G12** notifies the Permittee that additional monitoring requirements may be established by Ecology in accordance with 40 CFR 122.41(h).

Condition **G13** prohibits the reintroduction of removed substances back into the effluent in accordance with 40 CFR 125.3(g), RCW 90.48.010, RCW 90.48.080, WAC 173-220-130, and WAC 173-201A-040.

Condition **G14** requires responsible officials or their designated representatives to sign submittals to Ecology in accordance with 40 CFR 122.22, 40 CFR 122.22(d), WAC 173-220-210(3)(b), and WAC 173-220-040(5). The footnote associated with 40 CFR 122.22(a)(1) contains the following clarification: EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in §122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under §122.22(a)(1)(ii) rather than to specific individuals.

124.5, WAC 173-226-240, WAC 173-220-150(1)(d), and WAC 173-220-190.

Condition **G15** covers the applicant's right to request coverage under an individual permit rather than this general permit. WAC 173-220-040 and WAC 173216-070.

Condition **G16** defines appeal options for the terms and conditions of the general permit and of coverage under the permit by an individual discharger in accordance with RCW 43.21B and WAC 173-226-190.

Condition **G17** requires the Permittee to reapply for coverage 180 days prior to the expiration date of this general permit in accordance with 40 CFR 122.21(d), 40 CFR 122.41(b), and WAC 183-220-180(2) (Note: This would only apply to long term projects or to sites with permit coverage near the time of permit expiration).

Condition **G18** covers the termination of individual permits upon coverage issuance under this general permit.

Condition **G19** specifies that Permittees may request their general permit coverage be replaced by an individual permit in accordance with 40 CFR 122.62, 40 CFR 124.5, and WAC 173-220-040.

Condition **G20** covers Ecology enforcement authority, as stated in WAC 173-226-250.

Condition **G21** invokes severability of permit provisions in accordance with RCW 90.48.904.

Condition **G22** requires Permittees pay permit fees to Ecology in accordance with WAC 173-224.

PERMIT MODIFICATIONS

Ecology may modify this permit to impose new or modified numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, or Department approved engineering reports. Ecology may also modify this permit because of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

The general permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. Ecology proposes to issue this general permit for five (5) years.