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February 10, April 6, 2004

STATE WATER RESOURCES CONTROL BOARD

FACT SHEET

**WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION
SYSTEM PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR
AQUATIC WEED AND PEST CONTROL IN WATERS OF THE UNITED STATES**

GENERAL PERMIT NO. CAG _____

BACKGROUND

On March 12, 2001, the Ninth Circuit Court of Appeals held that discharges of pollutants from the use of aquatic pesticides to waters of the United States require coverage under a National Pollutant Discharge Elimination System (NPDES) permit (Headwaters, Inc. v. Talent Irrigation District¹). The Talent decision was issued just prior to the major season for applying aquatic pesticides. Because of the serious public health, safety, and economic implications of delaying applications of aquatic pesticides, the State Water Resources Control Board (State Board) adopted an interim NPDES permit, Water Quality Order (Order) No. 2001-12-DWQ on an emergency basis.

Order No. 2001-12-DWQ imposed requirements on any discharge of aquatic pesticides from public entities to waters of the United States in accordance with the State Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Policy). The Policy establishes procedures for implementing water quality standards for priority pollutants² in NPDES permits.

Section 5.3 of the Policy allows for short-term or seasonal exceptions from its requirements for resource or pest management conducted by public entities. In order to qualify for an exception from meeting priority pollutant standards, a public entity must fulfill the requirements listed in section 5.3 and the State Board must provide decide to grant the exception. Among other requirements, entities seeking an exception to complying with water quality standards for priority pollutants must submit California Environmental Quality Act (CEQA) documentation and other exception requirements specified in section 5.3 and only cause a short term or seasonal exceedance documents. Because of the emergency adoption of Order No. 2001-12-DWQ, the State Board invoked an exemption to the requirements of section 5.3 and issued the permit incorporating a categorical exception to water quality standards for priority pollutants.

Order No. 2001-12-DWQ required that dischargers develop a best management practices (BMPs) plan that minimizes adverse impacts to receiving waters and a monitoring and reporting plan that is representative of each type of aquatic pesticide application.

¹ Headwaters, Inc. v. Talent Irrigation District, (9th Cir. 2001) 243 F.3d 526.

² The water quality standards for Priority-priority pollutants are listed in 40 Code of Federal Regulations (CFR), section § 131.38 (b)(1), and include acrolein and copper.

ORDER NO. 2001-12-DWQ LAWSUIT

In August 2001, Waterkeepers Northern California (Waterkeepers) filed a lawsuit against the State Board challenging several aspects of Order No. 2001-12-DWQ. In a settlement agreement, the State Board agreed to fund a comprehensive aquatic pesticide monitoring program (APMP) that would assess pesticide alternatives, receiving water toxicity caused by residual aquatic pesticides, and other monitoring parameters. The State Board contracted with the San Francisco Estuary Institute (SFEI) to conduct the program. On February 5, 2004, SFEI provided the draft report to APMP's Steering Committee. The report made the following conclusions:

1. 2,4-D

The study monitored the effects of 2,4-D and a [nonylphenoethoxylate](#) surfactant at the Stone Lake National Wildlife Refuge. No toxicity was observed at this sampling event; ~~however, research has indicated that 2,4-D alone and in combination with a surfactant can cause endocrine disruption in juvenile trout. This endocrine disruption work has currently only been conducted under a worst case application scenario and further work is being done to see what the effects are at lower more typical concentrations.~~

2. Acrolein

APMP work with acrolein this year focused on development of a field sampling method that would allow for accurate determination of concentrations in the environment. Toxicity testing is ~~not possible~~ difficult with for acrolein due to its rapid breakdown and volatilization. As acrolein is labeled as an aquatic pesticide, it is also functionally a biocide with very low Lowest Observed Effect Concentration (LOEC)/No Observed Effect Concentration (NOEC) values. Therefore, anywhere acrolein is found, it can be considered toxic. The most appropriate monitoring at this time would be chemical characterization only. The current U.S. Environmental Protection Agency (USEPA) method has an adequate Method Detection Limit (MDL); however, commonly used field sampling techniques are insufficient and will lead to erroneous results. ~~APMP has developed an in-field derivitization method that can be easily adapted by commercial labs and private consulting firms with some Quality Assurance (QA) round-robin exercises to ensure accuracy. One additional consideration is the fact that there is limited data on acrolein's primary breakdown product, 3-hydroxypropanal. APMP intends on conducting more work on this compound in 2004.~~

3. Copper

~~Copper was monitored for in several water bodies, both lake and canal systems. In both lakes studies, the dissolved copper was found to have caused lethal and sublethal toxicity in juvenile trout. sulfate applications were monitored in two reservoirs. In one reservoir treatment area treated with dissolved copper sulfate, toxicity (in the form of mortality) was~~

observed for at least 24 hours after application and toxicity in ceriodaphnia (water flea) for at least a week after application. Sublethal in juvenile trout. Lethal (mortality) and sublethal (reproduction) toxicity were observed in Ceriodaphnia (water flea) up to one week after application.

toxicity was observed in aIn the reservoir treated with granular copper for benthic algae control. In addition, chemical characterization showed that sediment copper concentrations were in some cases well above sediment quality guidelines but yet did not exhibit the amount of toxicity one would expect. The data also indicated sulfate applications, significant mortality was observed in Ceriodaphnia and juvenile trout water toxicity tests immediately after application within the treatment area. Follow up water sampling was not conducted because the reservoir received only one application in 2003. that sediment toxicity may be caused by applications in one lake. In a canal system treated with chelated copper, the treated water was toxic to both juvenile trout and water fleas while the treatment occurred. Due to the flow through nature of these systems residual water toxicity was not observed. Sediment toxicity was observed two weeks post application; however, chemical characterization did not confirm elevated copper concentrations so toxicity due to copper application was not confirmed. Mortality and growth inhibition was also observed in a number of the sediment samples. Sediment copper concentrations exceeded National Oceanographic and Atmospheric Administration (NOAA) Effect Ratio Low and Medium values. However, the limited toxicity observed in the sediments indicates that the majority of the copper is not bioavailable.

Chelated copper pesticides were monitored during applications in two irrigation canal systems. One system used a product of mixed copper ethanolamines and the other the same product of mixed copper ethanolamines in an emulsified formulation. Chelated copper formulations are likely to have distinct behavior from copper sulfate and each other in aquatic environments based on the chelating agent and other adjuvants.

In both systems where monitoring occurred, the water samples were almost uniformly toxic pre-application and post application. Therefore, no definitive conclusions can be drawn about the toxicity of mixed copper ethanolamines. Copper carbonate is the active ingredient in other chelated copper products and no monitoring of copper carbonate-based pesticides was conducted.

4. **Glyphosate**

Glyphosate was monitored at several locations. It was commonly used with a nonylphenolethoxylate surfactant. No toxicity was found to be associated with the glyphosate applications.

5. **Diquat Dibromide or Diquat**

Diquat was sampled at two locations (one small pond and one Delta slough). At both

locations a nonylphenolethoxylate surfactant was used. In the pond location, toxicity was seen immediately after application, but no additional samples were taken. In the Delta slough, no toxicity was seen that could be attributed to diquat.

6. Fluridone

Fluridone was sampled at several locations. In Costa Ponds, the fluridone water concentration ranged from 0.05 $\mu\text{g/L}$ before application to 7.2 ~~micrograms per liter ($\mu\text{g/L}$)~~ $\mu\text{g/L}$ one hour after application. The fluridone porewater ~~fluridone~~ concentration ranged from 0.08-1.24 $\mu\text{g/L}$. Toxicity was observed in all *Selenastrum* tests conducted, including the water collected before pre-application. This indicates that fluridone was not the only cause of toxicity. No toxicity was observed in the ceriodaphnia or fathead minnow tests. Monitoring during an application of liquid fluridone, the pesticide was found to accumulate in the tissue of fish and crayfish two weeks after application. At four weeks after the cessation of treatment, tissue concentrations had returned to pre-application levels.

In Big Bear Lake, the fluridone sediment concentrations ranged from 5.88-300 $\mu\text{g/L}$. Toxicity in the Hyallela tests (10 and 28 day tests) was observed but bore no correlation to sediment fluridone concentration. The sediment fluridone concentration was also not correlated to the pore water fluridone concentration.

7. Triclopyr

~~7.~~ Only one site treated with triclopyr was monitored in 2003. It was used with a nonylphenolethoxylate surfactant. No toxicity was observed. Triclopyr will have wider usage when it receives registration from the California Department of Pesticide Regulation (DPR).

8. Nonionic Surfactants

There is a wide range of surfactants available, but the most commonly used surfactants for aquatic pesticides applications are Target Prospreader Activator and R-11. Both are nonylphenolethoxylate surfactants. There are only limited data available on surfactants.

In summary, these results show that no toxicity was found with the use of 2,4-D, glyphosate and triclopyr. Toxicity testing is ~~not possible~~ difficult with ~~for~~ acrolein. Results were inconclusive for diquat and fluridone. Toxicity was ~~confirmed~~ conclusive only in copper-based applications. To confirm these results, additional monitoring will be conducted in 2004. ~~Based on these results, this General Permit will require toxicity monitoring only for copper-based aquatic pesticides.~~

The APMP includes a section on Alternative or Non-Chemical Methods to Aquatic Pest Control. The report found that water quality impacts from alternative or non-chemical methods were

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~~minimal, temporary or not apparent.~~ Turbidity increased, but usually returned to pre-project status within days. Shredding in stagnant water bodies indicated decreases in dissolved oxygen, increases in nutrients, and an increase in biochemical oxygen demand. Shredding is not selective in its impacts and will shred non-target species within the area being controlled. In water bodies where harvesting was conducted routinely, the effects on water quality appeared to be short-lived, and unlikely to adversely affect beneficial uses. Alum and gypsum may be a substitute for copper in controlling algae, but more research is needed to adequately produce useful results.

~~In general, water quality impacts were temporary or were not apparent. The report also found that costs depended on the~~Data results indicated that the relative cost-effectiveness of conventional pesticides versus alternative non-chemical methods varied among different project scenarios, including water body and the particular weed being targeted. Using conventional pesticides for floating or submerged weeds in Delta water bodies proved most cost effective. A combination of chemical application and mechanical harvesting for milfoil in Big Bear Lake was most cost effective. Mowing was most effective for vegetation in wetlands. The use of alternative or non-chemical methods should be done at the appropriate time in the life cycle of the targeted weed and at the correct pesticide dilution to increase efficiency. ~~Alum and gypsum may be a substitute for copper in controlling algae, but more research is needed to adequately produce useful results. Data results indicated that the relative cost-effectiveness of conventional pesticides versus alternative non-chemical methods varied among different project scenarios. In water bodies where harvesting was conducted routinely, the effects on water quality appeared to be short-lived, and unlikely to adversely affect beneficial uses.~~

DISCHARGER MONITORING DATA REVIEW

State Board staff reviewed the 2003 annual monitoring reports from ~~the aquatic pesticide~~ dischargers under Order No. 2001-12 DWQ and found that water quality in application areas return to background water quality levels when pesticides are applied with the proper label instructions. Results show that acrolein levels are not detectable after 24 hours. Generally, diquat and glyphosate returned to below water quality objective levels five days after application. Copper dissipated within two weeks when applied in small amounts or percentages. If greater amounts of copper were used, it took up to four weeks for the water to return to levels observed before ~~application. Staff application~~ found that some sampling locations were not very clearly defined.

AQUATIC PESTICIDE PROJECTS

The use of aquatic pesticides by Control Agencies³ is necessary to manage resources and maintain beneficial uses, such as to ensure the proper operation of municipal and agricultural

³ The Control Agency is the permitted discharger authorized by this General Permit. It is the agency responsible for controlling the weeds or pests. In some cases, such as irrigation districts, the Control Agency may own the conveyance system. In other cases, such as application to Delta waters, the Control Agency may not own the water body or conveyance system into which aquatic pesticides are applied. Additionally, the Control Agency may be the

irrigation water distribution systems, maintain capacity in flood control channels, maintain boating access, and control invasive species. Weed ~~and pest~~ control projects are undertakings necessary to control a specified type of weed ~~or pest~~ to an acceptable level in the ~~t~~Treatment Area⁴ that is being managed. The need for aquatic pesticide application events as part of a project can vary from week to week and from season to season due to such things as temperature and flow of the receiving water. It is a balancing act between managing resources and impairing resources. This General Permit and the other governmental regulatory programs described below provide different pieces to ensure this balancing act is successful.

RELATED AQUATIC PESTICIDE REGULATIONS

Pesticide formulations contain disclosed active ingredients that yield toxic effects on target organisms and may also have toxic effects on non-target organisms. They also contain inactive or inert ingredients, as well as adjuvants. Adjuvants are compounds chosen by the discharger and added to aquatic pesticides during an application event to increase the effectiveness of the aquatic pesticides on target organisms. Inactive ingredients and adjuvants are trade secrets and have not been publicly disclosed.

According to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), USEPA has sole jurisdiction of pesticide label language. Label language and any changes thereto must be approved by USEPA before the product can be sold in this country. As part of the labeling process, USEPA evaluates data submitted by registrants to ensure that a product used according to label instructions will cause no harm (or “adverse impact”) on non-target organism that cannot be reduced (or “mitigated”) with protective measures or use restrictions. Registrants are required to submit data on the effects of pesticides on target pests (efficacy) as well as effects on non-target pests. Data on non-target effects include plant effects (phytotoxicity), fish and wildlife hazards (ecotoxicity), impacts on endangered species, effects on the environment, environmental fate, breakdown products, leachability, and persistence; however, FIFRA is not necessarily as protective of water quality as the Clean Water Act (CWA).

[Department of Pesticide Regulation \(DPR\)](#) is responsible for reviewing the toxic effects of aquatic pesticide formulations and determining whether a pesticide is suitable for use in California’s waters through a registration process. To do this, DPR also reviews data submitted by the registrants. While DPR cannot require manufacturers to make changes in labels, DPR can refuse to register products in California unless manufacturers address unmitigated hazards by amending the pesticide label. Consequently, requirements that are specific for use in California are included in many pesticide labels that are approved by USEPA.

pesticide applicator, but it may also contract with a separate entity that does the actual pesticide application. In either case, however, the Control Agency must ensure that the discharge is in compliance with this General Permit.

⁴ The ~~t~~Treatment Area is the area being ~~controlled or~~ treated [by the aquatic pesticide to control weeds and therefore, the area being targeted to receive lethal doses of aquatic pesticides. It is the responsibility of the discharger to define the treatment area for each specific location that it discharges to. ~~for aquatic weeds or pests.~~](#)

DPR also licenses applicators of pesticides designated as a “restricted material”⁵. To legally apply [these](#) pesticides, the applicator must be a holder of a Qualified Applicator Certificate or work under the supervision of someone who is certified. For aquatic pesticides, the qualified Applicator Certificate must have the category “aquatic.”

State regulations require that the County Agricultural Commissioners (CACs) determine if a substantial adverse environmental impact will result from the proposed use of a restricted material. The CAC implements this by issuing Use Permits for the application of pesticides considered as restricted materials. In evaluating local conditions, CACs may use information supplied by DPR, which suggests permit conditions that reflect minimum measures necessary to protect people and the environment. State regulations require that specific types of information be provided in an application to the CACs for a pesticide use permit. The CACs review the application to ensure that appropriate alternatives were considered and that any potential adverse effects are mitigated. The CACs also conduct pre-project inspections on at least five percent of projects.

PERMIT COVERAGE/NOTIFICATION REQUIREMENTS

This General Permit addresses the discharge of aquatic pesticides related to the application of 2,4-D, acrolein, copper, diquat, endothall, fluridone, ~~glyphosate, and rotenone based~~ [glyphosate and triclopyr-based](#) aquatic pesticides to surface waters for the control of aquatic ~~weeds and pests~~. ~~Triclopyr is currently going through DPR’s registration process. After its registration, the discharge associated with triclopyr based pesticides will also be covered by this General Permit.~~ [weeds](#). Aquatic pesticides that are applied to ~~Treatment Areas~~ [application areas](#)⁶ within waters of the United States in accordance with FIFRA label requirements and Use Permit restrictions are not considered pollutants. However, ~~aquatic pesticides that discharge into areas outside the Treatment Area and residues~~⁷ ~~are considered pollutants and~~ [pollutants associated with aquatic pesticide application](#) require coverage under this General Permit. [These include over-applied or misdirected pesticide product and pesticide residues. Residues are any pesticide byproduct, or breakdown product, or pesticide product that is present after the use of the pesticide to kill or control the target weed.](#)

This General Permit does not cover agricultural storm water discharges or return flows from irrigated agriculture because these discharges are not defined as “point sources” and do not require coverage under an NPDES permit. This General Permit also does not cover other indirect or nonpoint source discharges from applications of pesticides, including discharges of pesticides to land that may be conveyed in storm water or irrigation runoff. This General Permit does not cover the discharge of pollutants related to applications of pesticides other than 2,4-D,

⁵ DPR designates a pesticide as a restricted material in California if it poses hazards to public health, farm workers, domestic animals, honeybees, the environment, wildlife, or crops other than those being treated (“Regulating Pesticides: A Guide to Pesticide Regulation in California,” October 2001, DPR).

⁶ [The application area is the area to which aquatic pesticides are directly applied.](#)

⁷ [“Residue” is defined as chemicals or by products caused by the application of aquatic pesticides that persist in the receiving waters after a specified treatment period.](#)

acrolein, copper, diquat, endothall, fluridone, glyphosate, ~~rotenone~~ and triclopyr ~~(after DPR registration)~~, based pesticides; however, this General Permit includes a re-opener statement specifying that the permit may be reopened for the specific purpose of modifying the list of pesticides whose associated discharge is authorized by this General Permit.

The basic requirements of this General Permit include:

1. The ~~discharger~~applicator must follow all pesticide label instructions and any Use Permits issued by a CAC;
2. The discharger must be licensed by DPR or work under the supervision of someone who is licensed if the aquatic pesticide is considered a restricted material;
3. The discharger must comply with effluent limitations including developing and implementing an Aquatic Pesticide Application Plan (APAP);
4. The discharger must comply with applicable receiving water limitations; and
5. The discharger must comply with monitoring and reporting requirements.

To obtain coverage under this General Permit, a discharger must submit a completed Notice of Intent to Comply with the Terms of this General Permit (Notice of Intent, NOI), a vicinity map, and the first annual fee⁸ to the appropriate Regional Water Quality Control Board (Regional Board). These items constitute a complete application package, ~~which authorize dischargers to discharge,~~ the submittal of which authorizes the discharge of pollutants associated with the application of aquatic pesticides in compliance with this General Permit, unless the Regional Board requests additional information necessary to determine the applicability of the discharge to this General Permit. ~~Dischargers who submit a valid NOI package are not required to submit an individual permit application, unless directed by a Regional Board that has determined the discharger submitting an NOI is not eligible for coverage under this General Permit~~

~~Separate NOIs are required for discharges located within more than one Regional Board's boundary, as defined in section 13200 of the California Water Code.~~ Each enrollment will cover all discharges occurring within the boundaries of that Regional Board. Separate NOIs are required for discharges located within more than one Regional Board's boundary, as defined in section 13200 of the California Water Code (CWC). Only one annual fee ~~must be submitted for all covered~~ is required for all applicable discharges from one entity.

⁸Payment of this fee is not necessary if you have paid an annual fee within the last year for coverage under the previous order, No. 2001-12-DWQ.

Authorization to discharge under this General Permit is terminated upon receipt by the discharger, from the appropriate Regional Board(s), of a Notice of Exclusion (NOE),⁷ or upon the adoption of either an individual or other general NPDES permit covering the discharge. Alternatively, the discharger may initiate termination under this General Permit by submitting a letter to the appropriate Regional Board explaining why coverage under the General Permit is no longer necessary.

WATERS OF THE UNITED STATES

This General Permit regulates the discharge of pollutants associated with the application of aquatic pesticides to waters of the United States. "Waters of the United States" include all waters currently used, used in the past, or susceptible to use in interstate commerce; all interstate waters; all other waters the use, degradation, or destruction of which would or could affect interstate or foreign commerce. Waters of the United States include waters used by interstate or foreign travelers for recreation, waters from which fish or shellfish are taken and sold in interstate or foreign commerce, impoundments⁸ of and tributaries to waters of the United States, and wetlands adjacent to waters of the United States. Waters of the United States include, but are not limited to, irrigation and flood control channels that exchange water with waters of the United States.

WATER QUALITY STANDARDS

The ~~Clean Water Act (CWA)~~CWA defines Water Quality Standards as "Provisions of state or federal law which consist of designated uses for the waters of the United States, water quality criteria for waters based upon such uses, and antidegradation policies. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act."

[40 Code of Federal Regulations (CFR) section 131.3(i)].

In California, the *Water Quality Control Plans* designate the beneficial uses of waters of the State and water quality objectives (WQOs) to protect those uses. The *Water Quality Control Plans* are adopted by the State and Regional Boards through a formal administrative rulemaking process, and, upon approval by USEPA, the WQOs for waters of the United States (generally surface waters) become State water quality standards.

USEPA has established water quality criteria in California for priority pollutants in the National Toxics Rule and the California Toxics Rule (CTR). The CTR criteria are also water quality standards.

⁷ An NOE is a one-page notice that indicates that the [discharger](#) or proposed discharger is not eligible for coverage under this General Permit and states the reason why. [This justification can include, but is not limited to, necessity to comply with a total maximum daily load or to protect sensitive water bodies.](#)

⁸ Surface water impoundments include, but are not limited to, drinking water reservoirs, ornamental lakes and ponds, and impoundments used to store irrigation water.

EFFLUENT LIMITATIONS

NPDES permits for discharges to surface waters must meet all applicable provisions of sections 301 and 402 of the CWA. These provisions require controls that utilize best available technology economically achievable (BAT), best conventional pollutant control technology (BCT), and any more stringent controls necessary to reduce pollutant discharge and meet water quality standards.

Title 40, CFR section 122.44 states that if a discharge causes, has the reasonable potential to cause, or contributes to an excursion (Reasonable Potential) of a numeric or narrative water quality criterion, the permitting authority must develop effluent limits as necessary to meet water quality standards. Title 40, CFR section 122.44(k)(3) allows these effluent limits to be requirements to implement BMPs if numeric effluent limits are infeasible. It is infeasible for the State Board to establish numeric effluent limitations ~~for pollutants in discharges associated with aquatic pesticide applications in this General Permit~~ because:

1. The ~~discharge application~~ of aquatic pesticides is not ~~necessarily~~ considered a discharge of pollutants according to the ~~Talent~~ decision. The ~~regulated discharge is the~~ discharge of pollutants ~~occurs within the receiving waters after the pesticide has accomplished its purpose and becomes associated with the application of aquatic pesticides. These include over-applied and misdirected pesticide product and pesticide~~ residue. At what point ~~this happens~~ the pesticide becomes a residue is not precisely known and varies depending on such things as target weed ~~or pest~~, water chemistry, and flow. Therefore, in the application of aquatic pesticides, the exact effluent is unknown;
2. It would be impractical to treat the numerous short duration intermittent pesticide releases to surface waters from many different locations; and
3. Treatment, in many cases, may render the pesticide useless for aquatic weed ~~and pest~~ control.

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Therefore, the effluent limitations contained in this General Permit are narrative and include requirements to develop and implement an APAP that describes appropriate BMPs, including compliance with all pesticide label instructions, ~~and to comply with receiving water limitations.~~

The BMPs required herein constitute BAT and BCT and will be implemented to minimize the areal extent and duration of impacts caused by the discharge of aquatic pesticides in the ~~Treatment Area~~ ~~treatment area~~ and to allow for ~~full~~ restoration of water quality and protection of beneficial uses⁹ of the receiving waters ~~both inside and outside to pre-application quality the Treatment Area~~ following completion of a ~~resource or pest management~~ ~~treatment~~ event.

⁹ ~~Water bodies that do not expressly have designated beneficial uses are assigned the beneficial uses of the water body they are tributary to.~~

APAP

An APAP is a comprehensive plan developed by the discharger that describes the project, the need for the project, what will be done to reduce water quality impacts, and how those impacts will be monitored. Specifically, the APAP must contain the following elements:

1. Description of the water body(ies) or water body systems being controlled; ← Formatted: Bullets and Numbering
2. Description of what weed(s) are being controlled and why; ← Formatted: Bullets and Numbering
3. Discussion of control tolerances (i.e., how much growth can occur before action is necessary); ← Formatted: Bullets and Numbering
4. Discussion of the factors influencing the decision to use aquatic pesticides in regards to those tolerances (pros and cons); ← Formatted: Bullets and Numbering
5. Type(s) of aquatic pesticides used⁹, the method in which they are applied, and the adjuvants used; ← Formatted: Bullets and Numbering
6. Description of the application area and the treatment area in the system; ← Formatted: Bullets and Numbering
7. Other control methods used (alternatives) and what their limitations are; ← Formatted: Bullets and Numbering
8. How much product is needed and how this is determined; ← Formatted: Bullets and Numbering
9. Monitoring plan, including the location of representative site(s); ← Formatted: Bullets and Numbering
10. If applicable, list the gates or control structures and inspection schedule of those gates or control structures to ensure that they are not leaking; ← Formatted: Bullets and Numbering
11. If the Control Agency has been granted a section 5.3 exception, describe the exception period. If weeds are also controlled outside of this period, describe how is it ensured that receiving water criteria are not exceeded; ← Formatted: Bullets and Numbering
12. Description of the BMPs to be implemented; and ← Formatted: Bullets and Numbering
13. Evaluation of other available BMPs and alternative control measures to determine feasible alternatives to the selected aquatic pesticide application project that could reduce potential water quality impacts. ← Formatted: Bullets and Numbering

The development of BMPs provides the flexibility necessary to establish controls to minimize the areal extent and duration of impacts caused by the discharge of aquatic pesticides. This

⁹ List the types and the names of aquatic pesticides used or anticipated to be used. If additional or alternative pesticides are used during the year, amend the APAP and note this in the annual report.

flexibility allows dischargers to implement different BMPs for different types of applications and different types of waters.

RECEIVING WATER LIMITATIONS

~~During~~ Once aquatic pesticide has been applied to an application area, the pesticide product can actively treat the target species within the treatment area. ~~During the treatment~~ event, the aquatic pesticide is at a sufficient concentration to actively kill or control target weeds, ~~and pests.~~ When active ingredient concentrations are below this effective concentration, the aquatic pesticide becomes a residue. The minimum effective concentration, and the time required to reach it, vary due to site specific conditions, such as flow, target species, and water chemistry. ~~The residues from an event are the pollutants regulated by this General Permit.~~ The Receiving Water Limitations require that an application event does not result in an exceedance of water quality ~~standards:~~

~~1. Outside of the Treatment Area at any time, or~~
~~Anywhere~~ standards in the receiving water. The receiving water includes:

1. Anywhere outside of the treatment area at any time, and
2. ~~(i.e., inside and outside the Treatment Area) anytime~~ Anywhere inside the treatment area after completion of the treatment event.

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In recognition of the variability in the temporal extent of ~~ana~~ treatment event, this General Permit does not require it to be discretely defined. Instead, post-event monitoring of the water is required no more than a week from the time of aquatic pesticide application.

For those ~~Control Agencies~~ dischargers that have been granted a section 5.3 exception, the event may result in “short-term or seasonal” exceedance of water quality standards for priority pollutants ~~inside and outside the Treatment Area in the receiving water.~~ Again, there is no discrete definition of short-term but the intent is to allow the exception to apply for some period of time, such as the summer months (June, July, and August) and in some years extending through September due to weather. ~~We do not intend for the~~ The exception is not intended to apply all year.

The ~~Control Agency~~ discharger may apply aquatic pesticides longer than would be considered short-term or seasonal. However, it must demonstrate that exceedances of priority pollutant standards occur only during the defined short-term or season. It is up to the discharger to make this demonstration. The justification must be incorporated into the APAP and it must be confirmed through monitoring, if necessary.

To protect all designated beneficial uses of the receiving water, the most protective (lowest) and appropriate (to implement the CTR criteria and WQOs in the *Water Quality Control Plans*) limit should be selected as the water quality limit for a particular water body and constituent. In many

cases, water quality standards include narrative, rather than numerical, water quality objectives. In such cases, numeric water quality limits from the literature or publicly available information may be used to ascertain compliance with these standards.

For acrolein and copper, the freshwater aquatic life protection objective (in *Water Quality Control Plans*) and criterion (from CTR) are applicable. For 2,4-D, diquat, endothall, fluridone, and glyphosate, the most protective limits are those for the protection of the MUN beneficial use. The resulting numeric limits shall be used to assess impacts from pollutants associated with aquatic pesticide application on the quality of waters of the State and the beneficial uses that they are able to support. The absence of WARM or COLD criteria for a constituent does not mean that those beneficial uses or other beneficial uses are absent in the receiving water. It simply means that there are no State or USEPA-based numeric water quality objectives or criteria to implement those beneficial uses. This is the case for 2,4-D, diquat, fluridone, and glyphosate.

Below are brief descriptions of the active ingredients covered by this General Permit. The surfactant (a type of adjuvant) nonylphenol is also discussed.

2,4-D

Applications of 2,4-D-based aquatic pesticides are used to control broad-leaved aquatic weeds, as well as water hyacinth. ~~The recommended application method is the use of a portable spreader that can uniformly apply product to aquatic weeds. It is applied using a spray nozzle.~~

The California Department of Health Services (DHS) and USEPA have promulgated a Primary Maximum Contaminant Level (MCL) of 70 µg/L for 2,4-D that is applicable for drinking water sources, or water bodies with a domestic or municipal supply (MUN) designation. This General Permit requires compliance with the Primary MCL for discharges to water bodies with MUN designation. The receiving water limitation for discharge of 2,4-D to water bodies with MUN designation is 70 µg/L.

Acrolein

Acrolein-based aquatic pesticides are used to control submerged and floating vegetation. Application is accomplished by directly injecting the acrolein-based pesticides into flowing water.

Acrolein is a priority pollutant, and its criteria are specified in Table (b)(1) of the CTR. Criteria are established for human consumption of water and organisms (320 µg/L)¹⁰ and only organisms

¹⁰ These criteria apply to waters of the Sacramento-San Joaquin Delta and other waters of the State defined as inland waters that include a municipal use (MUN) use designation.

(780 µg/L).¹¹ The maximum recommended concentration of acrolein for the control of submerged or surface dwelling target species¹² is 15,000 µg/L.

Acrolein is recommended to be applied at a concentration that is greater than the CTR criteria or applicable WQOs.¹³ Therefore, there would be a Reasonable Potential for aquatic pesticide applications to cause residue concentrations to exceed the CTR criteria or WQOs.

All Regional Board Basin Plans contain narrative criteria prohibiting discharges from causing toxicity in receiving waters. USEPA found acute and chronic toxic effects to freshwater organisms at 68 µg/L and 21 µg/L, respectively.¹⁴ The Lowest Observed Effect Levels (LOELs) of 68 mg/L and 21 µg/L were determined from toxicity testing to freshwater organisms. Therefore, in order to protect freshwater aquatic life from toxic effects resulting from acrolein-based aquatic pesticide residue, this General Permit requires that receiving water residue of acrolein be less than the chronic 21 µg/L LOEL.

This General Permit requires that:

- 1) Acrolein residue, resulting from applications to inland surface waters, bays, and estuaries with uses of water that support warm and cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates (designation WARM and COLD), be less than 21 µg/L;
- 2) Acrolein residue, resulting from applications to inland surface waters, bays, and estuaries with a MUN designation, be less than 320 µg/L; and
- 3) Acrolein residue, resulting from applications to inland surface waters, bays, and estuaries without a MUN or warm and cold designation, be less than 780 µg/L.

~~CTR criteria have been assigned as receiving water limitations in this case because the concern is with aquatic pesticide residue, not the application concentrations.~~

Copper

¹¹ These criteria apply to water of the State defined as bays and estuaries including San Francisco Bay upstream to and including Suisan Bay and the Sacramento-San Joaquin Delta; and waters of the State defined as inland waters without and MUN use designation.

¹² Acrolein safety manual.

¹³ Acrolein could be applied in concentrations much higher than CTR criteria or WQOs, which could in turn cause residue concentrations to exceed the criteria.

¹⁴ USEPA Goldbook, 1986.

Copper-based aquatic pesticides are used to control algal and aquatic plant growth. There are many different formulations, and application methods vary from pitching water-soluble tablets to direct injection of copper-based liquid products.

Copper-based aquatic pesticide labels recommend applications of copper ~~of up to 1,000 µg/L, can be up to 1,000 µg/L or more.~~ Applicable water quality criteria for fresh and salt water, discussed below, are less than 1,000 µg/L. As described above for acrolein, limitations are required for discharges that have the Reasonable Potential to cause an exceedance of applicable criteria or WQOs.

Copper is a priority pollutant and the criteria for dissolved copper are specified in Table (b)(1) of the CTR. Criteria are established for maximum and continuous discharges in fresh and salt water. Conversion factors were also used to convert dissolved copper limitations to the total copper limitations assigned in this General Permit. The continuous or chronic criterion has been chosen in this case because it is the most protective considering that in many cases aquatic pesticides are applied several times per season and the limitation is for pesticide residue in receiving waters.

Freshwater copper criteria need to be adjusted for water hardness and may significantly differ from one irrigation system to another. Water hardness shall be determined by the calculation method because it is more accurate than the titration method. It is necessary to specify a range of total copper limitations in this General Permit because of the possible variations in freshwater hardness statewide. The total copper limitation will be calculated using the following equation:

$$\text{Maximum Residual Total Copper Concentration} = \exp[0.8545(\ln(\text{hardness}) - 1.702)]$$

~~Table 1 of Attachment D gives a range of total copper receiving water limitations, calculated using the above equation. Receiving water hardness will be rounded to the nearest Table 1 value to determine applicable total copper receiving water limitations. For example, for application in water with a hardness of 325 mg/L, in order to be in compliance with this General Permit, the copper concentration in the receiving water must be less than 32.7 µg/L.~~

Diquat

Diquat-based aquatic pesticides are used to control aquatic weeds. Diquat is a quick-acting contact pesticide, causing injury only to the parts of the plant to which it is applied.

~~All Regional Board Basin Plans contain narrative criteria prohibiting discharges from causing toxicity in receiving waters. The Office of Environmental Health Hazard Assessment (OEHHA) has adopted a Public Health Goal (PHG) of 15 µg/L. USEPA has established an MCL of 20 µg/L for diquat that is applicable for drinking water sources or water bodies with an MUN designation. PHGs represent levels of contaminants in drinking water that would pose no significant health risk to individuals consuming the water on a daily basis over a lifetime. In~~

~~addition, the USEPA National Ambient Water Quality Criteria for Freshwater Aquatic Life Protection specifies an instantaneous maximum of 0.5 µg/L. Therefore, to prevent receiving waters with an MUN designation and WARM and COLD designation from toxicity due to the use of diquat-based aquatic pesticides, this General Permit requires compliance with OEHHA's PHGs and USEPA's water quality criteria for freshwater aquatic life protection for discharges to water bodies with MUN designation: USEPA's MCL of 20 µg/L. The receiving water limitation for discharges of diquat to water bodies with MUN designation and WARM and COLD designation are 15 µg/L and 0.5 µg/L, respectively, is 20 µg/L.~~

Endothall

Endothall-based aquatic pesticides are used to control a variety of aquatic weeds. USEPA has promulgated a Primary MCL of 100 µg/L for endothall that is applicable for drinking water sources or water bodies with an MUN designation. This General Permit requires compliance with USEPA Primary MCLs for discharges to water bodies with MUN designation. Therefore, the receiving water limitation for discharge of endothall to water bodies with MUN designation is 100 µg/L.

Fluridone

Fluridone is a systemic herbicide that kills the entire plant and is generally non-selective, which means most submersed plants and some floating leaved plants will be killed by fluridone during the treatment. USEPA has a reference dose as a drinking water level of 560 µg/L. This General Permit requires compliance with USEPA's reference dose of 560 µg/L for discharges to water bodies with MUN designation. Therefore, the receiving water limitations for discharge of fluridone to water bodies with MUN designation is 560 µg/L.

Glyphosate

Glyphosate-based aquatic pesticides are used to control emergent foliage of aquatic weeds. Glyphosate-based aquatic pesticides are ineffective on submerged or mostly submerged foliage. USEPA has promulgated a Primary MCL of 700 µg/L for glyphosate that is applicable for drinking water sources or water bodies with an MUN designation. This General Permit requires compliance with USEPA Primary MCLs for discharges to water bodies with MUN designation. Therefore, the receiving water limitation for discharge of glyphosate to water bodies with MUN designation is 700 µg/L.

Rotenone

~~Rotenone-based aquatic pesticides are used to control fish. Rotenone inhibits the ability of fish to use oxygen.~~

~~Regional Board Basin Plans contain narrative criteria prohibiting discharges from causing toxicity in receiving waters. USEPA, in their Integrated Risk Information System (IRIS),~~

established a reference dose of 28 µg/L for rotenone. Reference doses are calculated as safe exposure levels for non-cancer health effects, based on standard exposure assumptions, including 70 kg body weight, 2 liters per day water consumption rate and a relative source contribution from drinking water of 20 percent. In order to protect drinking water, the receiving water limitation in this General Permit for rotenone for waters with MUN designation is 28 µg/L.

Nonylphenol

Nonylphenol is soluble in water and moderately resistant to natural degradation in water. Because of its chemical properties and widespread use as a chemical intermediate (surfactant), concerns have been raised over the risks it poses to both freshwater and saltwater organisms. Currently, there are no State or USEPA based numeric objectives or criteria for nonylphenol. However, this General Permit requires monitoring for nonylphenol, when this type of adjuvant is used.

Triclopyr

Triclopyr is a herbicide used for the control of perennial broadleaf weeds. Triclopyr has little tendency to hydrolyze, and photolysis is the main degradation pathway in natural water. In river water, the half-life of triclopyr was determined to be 1.3 days in artificial and natural light. Currently, there are no State or USEPA based numeric objectives or criteria for triclopyr. However, this General Permit requires dischargers who use triclopyr to monitor their applications.

CEQA EXEMPTION

Pursuant to California Water Code (Water Code)CWC section 13389, Regional Boards are exempt from the requirement to comply with Chapter 3, Division 13 of the Public Resources Code (PRC) when adopting NPDES permits. While adoption of this Permit is exempt from preparation of a CEQA document, public entities receiving exceptions pursuant to section 5.3 of the Policy were required to prepare a CEQA document, as discussed below.

POLICY EXCEPTION

The Policy contains implementation provisions for water quality standards. The Policy provides that categorical exceptions may be granted to allow short-term or seasonal exceptions from meeting the priority pollutant criteria/objectives if “necessary to implement control measures ... for resource or pest management... conducted by public entities to fulfill statutory requirements.” The Policy specifically refers to vector or weed control, and pest and fishery management as bases for categorical exceptions. The exceptions are available only to public entities that have adequately provided the following, as listed in the Policy:

1. CEQA documentation including notifying potentially affected public and government agencies;

2. A detailed description of the proposed action which includes the proposed method of completing the action;
3. A time schedule;
4. A discharge and receiving water monitoring plan that specifies monitoring prior to application events, during application events, and after completion with the appropriate quality control procedures; and
5. Any necessary contingency plans.

The State Board requested in a letter dated August 6, 2003 that aquatic pesticide users who seek exceptions provide the above information. All the above information, ~~except the monitoring plan,~~ must have been submitted to the State Board prior to the adoption of this General Permit for public entities to obtain a section 5.3 exception.

The public entities listed in Attachment E have prepared Initial Studies, Negative Declarations (ND), and Notices of ~~determination~~Determination or Mitigated Negative Declarations (MND) for the discharge of aquatic pesticides in accordance with ~~the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.)~~CEQA (PRC §21000 et seq.) to comply with the exception requirements of section 5.3 of the ~~policy.~~Policy. The boards of each public entity, as the lead agencies under CEQA, approved the Final ND/MND and determined that the discharge of aquatic pesticides in their respective projects would not have significant effect on the environment. Those public entities have determined that the water quality or related water quality impacts identified in the environmental assessments of the ND/MND are less than significant. The boards of each public entity, as the lead agencies under CEQA, approved the Final ND/MND and are not required to meet priority pollutant criteria until after completion of the application event.

As required in section 15096 of the CEQA Guidelines, the State Board, as Responsible Agency under CEQA, considered the ND/MND approved by the board of each public entity and finds that the projects will have less than significant water quality impact if the waste discharge requirements in this General permit are followed. Accordingly, the public entities listed in Attachment E are hereby granted an exception pursuant to section 5.3 of the policy.

Aquatic pesticide users not listed in Attachment E are required to meet all applicable priority pollutant criteria in receiving waters ~~outside the Treatment Area during treatment and inside and outside the Treatment Area after the treatment,~~ consistent with applicable federal and State regulations.

Several lawsuits have been filed which challenge the Negative Declarations adopted by various applicants for this General Permit. Pursuant to section 15233 of the CEQA Guidelines, the State Board must treat the Negative Declarations at issue as if they comply with CEQA and must continue to process the applications according to the time limits for Responsible Agency action

contained in Government Code section 65952. Accordingly, the following applicants are granted a conditional exception under Section 5.3 of the Policy: Merced Irrigation District, Modesto Irrigation District, Oakdale Irrigation District, South San Joaquin Irrigation District, and Turlock Irrigation District. The conditional exceptions granted by this General Permit only provide permission to proceed with the project at the applicant's risk. An applicant's conditional exception shall automatically be withdrawn in the event that a court enters a final decision finding that the applicant's Negative Declaration was inadequate.

The California Department of Food and Agriculture (CDFA) has determined that its ongoing projects to eradicate hydrilla are exempt from the requirements of CEQA because the activities are necessary to prevent or mitigate an emergency pursuant to Public Resources Code Section PRC section 21080 (b)(4). The bases for this determination are that the CDFA Hydrilla Program is mandated under sections 403 and 6048 of the Food and Agriculture Code and the Governor and/or the CDFA Secretary has declared that an emergency situation existed as each eradication project began. Although CDFA has determined the CDFA Hydrilla Program is exempt from CEQA, CDFA will coordinate all eradication activities with federal, state and local regulatory agencies to ensure no long-term significant environmental impacts occur.

As required in Section section 15096 of the CEQA Guidelines, the State Board, as a Responsible Agency under CEQA, considered the exemption claimed by CDFA and finds that the projects will have less than significant water quality impact if the waste discharge requirements in this General Permit are followed. Accordingly, CDFA is hereby granted an exception pursuant to section 5.3 of the Policy, as long as the Governor or the CDFA Secretary has declared that an emergency situation exists prior to project implementation.

BMPs

~~The development of BMPs provides the flexibility necessary to establish controls to minimize the areal extent and duration of impacts caused by the discharge of aquatic pesticides. This flexibility allows dischargers to implement different BMPs for different types of applications and different types of waters.~~

~~Many of the label directions constitute BMPs to protect water quality and beneficial uses. Label directions may include: precautionary statements regarding toxicity and environmental hazards; directions for proper handling, dosage, application, and disposal practices; prohibited activities; spill prevention and response measures; and restrictions on type of water body and flow conditions.~~

~~Other BMPs may be appropriate. For example, using an integrated pest management strategy and using less harmful alternatives may be appropriate BMPs. Dischargers are required to consider alternative control measures to determine if there are feasible alternatives to the selected aquatic pesticide application event that could reduce potential water quality impacts. If the discharger identifies alternative control measures to the selected aquatic pesticide application event that could reduce potential water quality impacts and that are also feasible, practicable, and~~

~~cost effective, the discharger shall implement the identified alternative measures. These BMPs must be described in the discharger prepared APAP. The APAP shall describe application procedures including, but not limited to, such things as, how to determine application is necessary, gate closure procedures (if applicable), allowable weather conditions, allowable flow conditions, etc.~~

MONITORING REQUIREMENTS

This General Permit requires that dischargers comply with the Monitoring and Reporting Program (MRP), Attachment BC of this General Permit.

The goals of the MRP are to:

- ~~1. is to assess the effectiveness of BMPs and determine~~ Determine compliance with the receiving water limitations and other requirements specified in this General Permit. ~~The MRP requires dischargers to choose one representative site for each type of aquatic pesticide used. Each representative site will be monitored for the active ingredient Permit; and other water quality parameters before, immediately after, and one week after each treatment. Toxicity monitoring is required with application of copper and rotenone based aquatic pesticides. Dischargers must sample at least 20 percent of application events.~~ ← Formatted: Bullets and Numbering
2. Measure and improve the effectiveness of the APAP; ← Formatted: Bullets and Numbering
3. Support the development, implementation, and effectiveness of BMPs; ← Formatted: Bullets and Numbering
4. Assess the chemical, physical, and biological impacts on receiving waters resulting from aquatic pesticide applications; ← Formatted: Bullets and Numbering
5. Assess the overall health and evaluate long-term trends in receiving water quality; ← Formatted: Bullets and Numbering
6. Demonstrate that water quality of the receiving waters following completion of resource or pest management projects are equivalent to pre-application conditions; ← Formatted: Bullets and Numbering
7. Identify and characterize aquatic pesticide application projects conducted by the discharger; and ← Formatted: Bullets and Numbering
- ~~8. Ensure that projects that are monitored are representative of all pesticides and application methods used by the discharger.~~

The MRP provided by this General Permit is considered baseline monitoring. Monitoring plans proposed by entities receiving a section 5.3. exception as a mitigation measure must also comply with that monitoring plan proposed in their CEQA document where the two plans differ.

The APMP, conducted by SFEI as an outcome of the settlement agreement, evaluated the toxicity of the 2,4-D, acrolein, copper, diquat, fluridone, glyphosate, and triclopyr. The APMP report states that no toxicity was found with the use of 2,4-D, glyphosate, and triclopyr; toxicity testing is ~~not possible~~difficult with-for acrolein due to its rapid breakdown and volatility; results were inconclusive for diquat and fluridone; and toxicity in copper-based applications was confirmed. Additionally, during the prior permit term, there were no incidents to suggest that toxicity testing is warranted. ~~Therefore, rotenone (because it was not part of the SFEI study) and copper~~

The purpose of toxicity testing is to determine if the aquatic pesticide applications cause toxicity in the receiving water. Since the active ingredients, surfactants, and breakdown products used in these aquatic pesticides are known and have receiving water limitations and/or are analyzed for in the MRP, toxicity testing is not necessary. This General Permit specifies receiving water limitations for each active ingredient that has State or USEPA-based water quality objectives or criteria and when available for their breakdown products and surfactants. These limitations are adequate to protect the beneficial uses of the receiving waters.

~~based pesticides are the only ones that require toxicity testing. However, all~~In order to meet the MRP's monitoring goals, dischargers are required to provide for all application sites a map and information on surface area and/or volume of treatment area and any other information used to calculate dosage and quantity of each pesticide used, conduct visual, physical, and chemical monitoring of all Treatment Areas and keep a log of these monitoring events during the first application and 20 percent of application events thereafter. In addition sediment testing is In addition, dischargers are required to conduct visual monitoring at all application sites during each application event. Furthermore, dischargers are also required to conduct water quality monitoring at 10 percent of all its application sites during each application event. Ten percent is used as a standard quality control required for copper-based applications once during the season; participation in a bioassessment program is also required. If there are signs of water quality problems, such as through those inspections, the State or Regional Board may require toxicity monitoring.

~~As suggested by SFEI, the monitoring program requires water quality monitoring for the active ingredient as well as other indicator parameters.~~

protocol in sample analysis methodology to ensure that the process stays within acceptable criteria. The MRP requires sampling a minimum of two representative sites for a discharger with 20 applications sites or less and 10 percent of all application sites for a discharger with more than 20 application sites. Sampling 10 percent of all the application sites is adequate to obtain information necessary to evaluate the effects of all the applications.

Additionally, specific monitoring and requirements are also provided for irrigation canals or similar systems that have reasonable control over treated water.

PERMIT RE-OPENERS

This General Permit contains a re-opener provision that allows the General Permit to be re-opened for the specific purpose of ~~adding~~[granting exceptions to](#) agencies that have adequately met the ~~Policy's~~[section 5.3](#) exception criteria. Alternatively, ~~General Permit users may file for~~[dischargers may request](#) an individual permit with the appropriate Regional Board.

The re-opener provision also allows for additional aquatic pesticides to be added to those authorized by this General Permit.

STATE WATER RESOURCES CONTROL BOARD

WASTE DISCHARGE REQUIREMENTS

WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND~~
~~PEST~~ CONTROL IN WATERS OF THE UNITED STATES

GENERAL PERMIT NO. CAG _____

The State Water Resources Control Board (hereafter State Board) finds that:

1. States may request authority to issue general National Pollutant Discharger Elimination System (NPDES) permits pursuant to Title 40, Code of Federal Regulations (CFR) section 122.28. On June 8, 1989, the State Board submitted an application to the U.S. Environmental Protection Agency (USEPA) requesting revisions to its NPDES program in accordance with 40 CFR sections 122.28, 123.62, and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, the USEPA, Region 9, approved the State Board's request and granted authorization for the State to issue general NPDES permits.
2. Federal regulation at 40 CFR section 122.28(a)(1) allows NPDES permits to be written to cover a category of discharges within State political boundaries.
3. According to ~~40 CFR Section 121.1(b)(1), point source discharges pollutants~~ [section 301\(a\) of the federal Clean Water Act \(CWA\), discharges of pollutants from point sources](#) to waters of the United States are ~~authorized only when they are in accordance~~ [prohibited unless they are in compliance](#) with an NPDES ~~Permit~~ [permit](#).
4. In order to manage resources and protect beneficial uses, many agencies use aquatic pesticides to control aquatic weeds ~~and pests~~.
5. On March 12, 2001, the Ninth Circuit Court of Appeals held that discharges of pollutants from the use of aquatic pesticides in waters of the United States require coverage under an NPDES permit (Headwaters, Inc. v. Talent Irrigation District¹).
6. Because of the serious public health, safety, and economic implications of delaying pesticide applications, [in 2001](#) the State Board adopted Water Quality Order (Order) No. 2001-12-DWQ, Statewide General NPDES Permit for Discharges of Aquatic Pesticides to ~~Surface~~ Waters of the United States, on an emergency basis to provide immediate NPDES permit coverage for broad categories of aquatic pesticide use in California.

¹ Headwaters, Inc. v. Talent Irrigation District, (9th Cir. 2001) 243 F.3d 526.

7. In August 2001, Waterkeepers Northern California (Waterkeepers) filed a lawsuit against the State Board challenging several aspects of Order No. 2001-12-DWQ. Major aspects of the challenge included the emergency adoption of the Order without compliance with the California Environmental Quality Act (CEQA) and other exception requirements of the State Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Policy); failure to address cumulative impacts; and failure to comply with the California Toxics Rule (CTR).
8. In a settlement ~~with~~of the Waterkeepers' lawsuit, the State Board agreed to fund a comprehensive aquatic pesticide monitoring program (APMP) that would assess receiving water toxicity caused by aquatic pesticide residues. Available data from the APMP were used to develop the terms and conditions of this General Permit.
9. The results of the APMP show that no toxicity was found with the use of 2,4-D, glyphosate, and triclopyr; toxicity testing is ~~not possible~~difficult ~~with~~for acrolein due to its rapid breakdown and volatilization; toxicity effects were inconclusive for diquat and fluridone; and toxicity in copper-based applications was confirmed.
- ~~10. This General Permit is intended to cover the discharge of residue due to the application of 2,4-D, acrolein, copper, diquat, endothall, fluridone, glyphosate, and rotenone based aquatic pesticides to surface waters associated with controlling aquatic weeds pests. Triclopyr is currently going through the registration process at the California Department of Pesticide Regulation (DPR). After registration, triclopyr will be covered by this General Permit.~~
- ~~10.~~ 10. Pesticide formulations may include "active ingredients"² and "inert ingredients"³. Adjuvants⁴ ~~or surfactants~~ may be added to the active ingredients in the application equipment that is used in the delivery of the pesticide. ~~Adjuvants are regulated as pesticides in California.~~
- ~~11. For the purposes of this General Permit, aquatic pesticides that persist in the water body (residue) or breakdown products that persist in the water body (residue) after the completion of treatment are considered pollutants. The discharge of these pollutants is a threat to the beneficial uses of receiving waters and is regulated by this General Permit. Pollutants associated with aquatic pesticide application include over- applied and misdirected pesticide product, and pesticide residues. Pesticide residues are pesticide byproducts, breakdown products, or pesticide products that are present after the use of the pesticide for controlling the target weed.~~
12. This General Permit is intended to cover the discharge of pollutants associated with the application of 2,4-D, acrolein, copper, diquat, endothall, fluridone, glyphosate and triclopyr-based aquatic pesticides to surface waters associated with controlling aquatic weeds.

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² Active ingredients are manufacturer disclosed ingredients that yield toxic effects on target organisms.

³ Inert ingredients are additional ingredients that are not toxic to target organisms. These ingredients are trade secrets and therefore not disclosed by the manufacturer.

⁴ Adjuvants are ingredients that are added to aquatic pesticides during a treatment event. These ingredients are chosen by the discharger, based on site characteristics, and typically increase the effectiveness of aquatic pesticides on target organisms.

13. The aquatic pesticides covered by this General Permit are applied directly into the water body and/or directly to organisms in the water or on the water surface with the intent of killing or controlling the target aquatic organisms. The impacts of these chemicals may not be limited to the target organisms—other plants and aquatic life in the Treatment Area⁵ may be impacted. Due to water movement at the treatment locations, residual pesticides can be carried to adjacent areas while concentrations in the water are still high enough to cause adverse impacts not only to aquatic organisms but also to other beneficial uses such as irrigation, municipal water supplies, and recreation (such as swimming).
14. As part of the pesticide registration process of pesticides for use in California, USEPA and ~~DPR~~the Department of Pesticides Regulation (DPR) evaluate data submitted by registrants to ensure that a product used according to label instructions will cause no harm or adverse impact on non-target organisms that cannot be reduced or mitigated with protective measures or use restrictions. While DPR conducts these tests, it does not require or conduct Compliance Monitoring.
15. DPR and the County Agricultural Commissioners (CACs) regulate the sale and use of pesticides in California. The use of pesticides must be consistent with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) pesticide label instructions. If applying a pesticide designated as a restricted material, applicators must either be licensed by DPR with a Qualified Applicator Certificate or work under the supervision of someone who is licensed and obtain Use Permits from CACs. For the use of aquatic pesticides, a Qualified Applicator Certificate with the category “aquatic” is required, and their use must be reported to the CACs where required by law or by agreement with DPR.
16. DPR regulates the use of pesticide-treated commodities and sites where needed to ensure that pesticide residues or breakdown products do not pose a hazard to human health or the environment. DPR also regulates the use of pesticides to reduce the release of residues from treated sites. This includes regulation of wastes generated by applications not in accordance with all laws and regulations, including drift from applications.
17. Under this General Permit, aquatic pesticide discharges require minimal or no treatment systems to meet limits and pose no significant threat to water quality. As such, they are eligible for Category 3 in section 2200(b)(9) of Title 23, California Code of Regulations (CCR). This category is appropriate because aquatic pesticide applications incorporate Best Management Practicesbest management practices (BMPs) to control potential impacts to beneficial uses, and this General Permit prohibits pollutant discharge associated with aquatic pesticide residueapplication from causing exceedance of CTR criteria or water quality objectives. The annual fee associated with this rating can be found in section 2200(b)(9) of Title 23, CCR.
18. Section 122.44(k)(3) of 40 CFR allows effluent limits to be in the form of BMP requirements, if numeric effluent limits are infeasible. Following USEPA label instructions and any other

⁵ The Treatment Area is the area that is treated by the aquatic pesticide to control weeds and therefore, the area being targeted to receive lethal doses of aquatic pesticides. It is the responsibility of the discharger to define the treatment area for each specific location that it discharges to, for aquatic weeds and pests.

~~applicable use permit restrictions are BMPs. This General Permit also requires dischargers to implement other BMPs, such as considering Numeric effluent limits for pollutant discharges associated with the application of aquatic pesticides are infeasible. Therefore, this General Permit requires the implementation of BMPs. less toxic methods of controlling aquatic weeds. The BMPs are identified in the discharger's Aquatic Pesticides Application Plan (APAP) to control and abate the discharge of pollutants associated with aquatic pesticide applications. In addition, where State or USEPA-based water quality objectives are available, this General Permit includes numeric receiving water limitations.~~

19. This General Permit requires submittal of a Notice of Intent to Comply with the Terms of this General Permit (NOI) to obtain permit coverage.
20. If the area of aquatic pesticide application extends beyond a Regional Water Quality Control Board (Regional Board) boundary, discharges in each Regional Board shall be covered by a separate Notice of Intent (NOI) under this General Permit. Only one annual fee must be submitted to the State Board.
21. Although a discharge may be eligible for coverage under this General Permit, the appropriate Regional Board may determine that the discharge must be regulated under an individual permit or a different general NPDES permit. If an individual or another general NPDES permit is issued for a discharge, then the applicability of this General Permit to the discharge is immediately terminated on the effective date of the other permit.
22. The State Board has considered antidegradation pursuant to 40 CFR section 131.12 and State Board Resolution No. 68-16. Discharges must be consistent with both State and federal antidegradation policies. The conditions of this General Permit require aquatic pesticide discharges to meet applicable water quality objectives. Waters of exceptional quality may be degraded due to the application of aquatic pesticides, while however, it would only be temporary and in the best interest of the people of the State. The nature of aquatic pesticides is to be toxic in order to protect beneficial uses such as municipal and agricultural supply, recreation, and human health (preventing floods by maintaining capacity in flood control channels). However, compliance with receiving water limitations must be maintained. Therefore, this General Permit is consistent with State and federal antidegradation policies.
23. There may be other non-toxic or less toxic control measures available to minimize the discharge of wastes to waters of the State, United States. This General Permit requires dischargers to evaluate BMPs that may include alternative control options, procedures to determine that water quality impacts have been minimized, and a determination that there are no feasible alternatives to the selected resource or pestweed management measures.
24. The State Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
 - a. Beneficial uses to be protected and the water quality objectives reasonably required for that purpose;
 - b. Other waste discharges;

- c. Past, present, and probable future beneficial uses of the waters under consideration;
 - d. Environmental characteristics of the waters under consideration;
 - e. Economic considerations;
 - f. The need to maintain conveyance facilities to provide water supplies for municipal, irrigation, and industrial purposes; and
 - g. Seasonal and weather conditions that require timely implementation of control measures.
25. The designated beneficial uses of surface waters throughout the State may include domestic or municipal, industrial, and agricultural supply; water contact and non-contact recreation; navigation; ground water recharge; fresh water replenishment; hydropower generation; wildlife habitat; cold freshwater and warm freshwater habitat; fish migration and fish spawning; marine habitat; estuarine habitat; shellfish harvesting; ocean commercial and sport fishing; preservation of areas of special biological significance; and preservation of rare and endangered species. To the extent that the applicable [State or Regional Board Water Quality Control Plan \(Basin Plan\)](#) designates additional or different beneficial uses, the [Basin Water Quality Control Plan](#) shall govern.
26. USEPA establishes water quality criteria for ~~Priority Pollutants~~[priority pollutants](#) in the National Toxics Rule and the CTR, and ~~Regional Boards establish~~ water quality objectives ~~for Priority Pollutants in Basins~~[are established in Water Quality Control Plans](#). The State Board's Policy went into effect on May 22, 2000 and generally requires limitations for all constituents that will cause, have the reasonable potential to cause, or contribute to toxicity in receiving waters.
27. Section 5.3 of the Policy provides that the State Board may allow short-term or seasonal categorical exceptions from meeting the ~~Priority Pollutant~~[priority pollutant](#) criteria/objectives if it is determined to be necessary to implement control measures for resource or pest management conducted by public entities to fulfill statutory requirements, including, but not limited to, those in the California Fish and Game, Food and Agriculture, Health and Safety, and Harbors and Navigation codes. Section 5.3 requires that the provisions of CEQA are satisfied and, dischargers provide specific discharge information before an exception may be granted.
28. Because of the emergency nature of Order No. 2001-12-DWQ, many of the actions that would normally occur prior to issuance of a permit granting a section 5.3 categorical exception to ~~Priority Pollutant~~[priority pollutant](#) objectives/criteria had not yet occurred. Therefore, Order No. 2001-12-DWQ was issued as a limited-term permit, which ~~will expire~~[expired](#) on January 31, 2004. During the term of the Order No. 2001-12-DWQ, the public entities ~~subject to~~[seeking an exception to the CTR during the term of](#) this General Permit were [directed](#) to complete necessary CEQA documents and prepare other submittals to satisfy the criteria for the categorical exception.
29. The State Board has received CEQA documentation and all other information required for a section 5.3 exception from public entities listed in Attachment E to this General Permit. This General Permit grants the public entities listed in Attachment E a section 5.3 categorical exception from meeting ~~Priority Pollutant~~[priority pollutant](#) criteria for short-term or seasonal time frames. This General Permit does not grant remaining enrollees a section 5.3 exception of the Policy.
30. [Several lawsuits have been filed which challenge the Negative Declarations adopted by various applicants for this General Permit. Pursuant to section 15233 of the CEQA Guidelines, the State](#)

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Board must treat the Negative Declarations at issue as if they comply with CEQA and must continue to process the applications according to the time limits for Responsible Agency action contained in Government Code section 65952. Accordingly, the following applicants are granted a conditional exception under Section 5.3 of the Policy: Merced Irrigation District, Modesto Irrigation District, Oakdale Irrigation District, South San Joaquin Irrigation District, and Turlock Irrigation District. The conditional exceptions granted by this Permit only provide permission to proceed with the project at the applicant's risk. An applicant's conditional exception shall automatically be withdrawn in the event that a court enters a final decision finding that the applicant's Negative Declaration was inadequate.

~~30-31.~~ This General Permit may be re-opened to modify Attachment E if additional entities qualify for a section 5.3 exception. This General Permit may also be re-opened if additional aquatic pesticides are registered by DPR.

~~32.~~ This General Permit does not authorize any take of endangered species. The discharge is prohibited from adversely impacting biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws. To ensure that endangered species issues are raised to the responsible agencies, the State Board has notified the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Game of this General Permit.

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~~31-33.~~ The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA (Public Resources Code section 21100, et seq.), in accordance with section 13389 of the California Water Code (CWC).

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~~32-34.~~ The State Board has notified interested agencies and persons of its intent to prescribe waste discharge requirements in this General Permit and has provided them with an opportunity to submit comments.

~~33-35.~~ The State Board, in a public hearing, heard and considered all comments pertaining to the discharges to be regulated by this General Permit.

~~34-36.~~ This Order shall serve as an NPDES permit pursuant to section 402 of the Clean Water Act and amendments thereto and shall take effect upon the date of adoption.

IT IS HEREBY ORDERED that all dischargers subject to this General Permit shall comply with the following:

A. Application Requirements:

In order to obtain coverage, the discharger must submit the following to the appropriate Regional Board(s)⁶. Dischargers that apply 2,4-D, acrolein, copper, diquat, endothall, fluridone, glyphosate,

⁶ The discharger must submit an NOI to each applicable Regional Board it discharges within. However, only one application fee is required for each discharger, regardless of the number of NOIs submitted.

and ~~rotenone~~ and triclopyr (~~after DPR registration~~)-based aquatic pesticides to waters of the United States are eligible for coverage under this General Permit provided:

1. An NOI (Attachment A) signed in accordance with the signatory requirements of Standard Provision B;
2. A vicinity map; and
3. An annual fee (for first-time enrollees).

Regional Boards may require additional information in order to determine whether a discharge is appropriately covered by this General Permit. Additionally, the Regional Board may issue a Notice of Exclusion, which either terminates permit coverage or requires submittal of an application for an individual permit or alternative general permit.

- ~~1. The discharger submits to the appropriate Regional Board a complete and accurate NOI form (Attachment A), vicinity map, and an annual fee (for first time enrollees) to cover all discharges by that discharger within the boundaries of each Regional Board, as defined in section 13200 of the California Water Code. The NOI must be signed in accordance with the signatory requirements of Standard Provision B.~~
- ~~2. The discharger, upon request, submits any additional information which the State or Regional Board determines is necessary in order to ascertain whether the discharge meets the criteria for coverage under this General Permit.~~
- ~~3. The discharger does not receive a written Notice of Exclusion (NOE) from the Regional Board. The discharger's authority to discharge under this General Permit terminates upon receipt of an NOE.~~
- ~~4. The discharger is not covered by this General Permit until covered by an individual or other general NPDES permit regulating the discharge of aquatic pesticides.~~

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B. Effluent Limitations:

1. The discharge of wastes other than as described in this General Permit is prohibited, unless authorized by a separate NPDES permit.
2. The discharge of wastes shall not cause or contribute to conditions of nuisance or pollution.
3. The discharge shall not cause or contribute to long-term adverse impacts on beneficial uses of waters of the United States.
4. The discharger shall apply pesticides in accordance with the developed APAP, as described in section D.4.

C. Receiving Water Limitations:

1. Discharge of treated water from the treatment area shall not exceed the following limitations.

<u>Constituent/ Parameter</u>	<u>BENEFICIAL USE</u>			
	<u>MUN</u>	<u>WARM or COLD</u>	<u>Other than MUN, WARM, or COLD</u>	<u>All Designations</u>
<u>2,4-D</u>	<u>70 µg/L</u>			
<u>Acrolein⁷</u>	<u>320 µg/L</u>	<u>21 µg/L</u>	<u>780 µg/L</u>	
<u>Copper⁸</u>				<u>Maximum Copper Concentration = exp[0.8545(ln(hardness)-1.702)]</u>
<u>Diquat</u>	<u>15 µg/L</u>			
<u>Endothall</u>	<u>100 µg/L</u>			
<u>Fluridone</u>	<u>560 µg/L</u>			
<u>Glyphosate</u>	<u>700 µg/L</u>			
<u>Toxicity</u>				<u>Applications shall not cause or contribute to toxicity</u>

The most restrictive (smallest) receiving water limit shall apply when discharges are to water bodies that have multiple limits listed above.

a. All Aquatic Pesticide Applications:

<u>Parameter</u>	<u>Limitation</u>
<u>Chronic Toxicity</u>	<u>Aquatic pesticide applications shall not cause or contribute to toxicity in receiving waters.</u>

b. Acrolein Based Aquatic Pesticide Applications:

<u>Beneficial Use Designation</u>	<u>Limitation</u>	<u>Reference</u>
<u>WARM and COLD</u>	<u>21 µg/L</u>	<u>USEPA National Ambient Water Quality Criteria for Freshwater Aquatic Life Protection, Lowest Observed Effect Level (LOEL)</u>
<u>MUN</u>	<u>320 µg/L</u>	<u>CTR</u>
<u>Other than WARM, COLD, or MUN</u>	<u>780 µg/L</u>	<u>CTR</u>

c. Copper Based Aquatic Pesticide Applications⁶:

Discharges shall meet the appropriate limitation based on receiving water hardness, as described in Attachment D to this General Permit.

⁷ Public entities listed in attachment E are not required to meet this limitation in receiving waters during treatment.

⁸ Public entities listed in attachment E are not required to meet this limitation in receiving waters during treatment.

⁶ Public entities listed in attachment E are not required to meet this limitation in receiving waters during treatment.

d. Other Aquatic Pesticide Discharges to Waters with MUN Designation:

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Constituent	Limitation	Reference
2,4-D	70 µg/L	California Department of Health Services and USEPA Primary Maximum Contaminant Level (MCL)
Diquat	15 µg/L	Office of Environmental Health Hazard Assessment (OEHHA) Public Health Goal
Endothall	100 µg/L	California Department of Health Services and USEPA Primary MCL
Fluridone	560 µg/L	USEPA IRIS Reference Dose as a Drinking Water Level
Glyphosate	700 µg/L	California Department of Health Services and USEPA Primary MCL
Rotenone	28 µg/L	USEPA IRIS Reference Dose as a Drinking Water Level

- Discharges shall not cause or contribute to an exceedance of any CTR criteria or applicable water quality objective in a State or Regional Board Basin Plan outside the Treatment Area during the application event and in the receiving water after the completion of the event. Water Quality Control Plan in the receiving water.

D. Aquatic Pesticide Use Requirements:

- License Requirements.** Dischargers must be licensed by DPR if such licensing is required for the aquatic pesticide application project.⁹ The pesticide use must be consistent with FIFRA pesticide label instructions and any Use Permits issued by CACs.
- Application Requirements.** The pesticide use must be consistent with FIFRA pesticide label instructions and any Use Permits issued by CACs.
- Application Schedule.** When requested, the discharger shall provide a phone number to persons interested in who request the discharger's application schedule. The discharger shall provide the requester with the most current application schedule and inform the requester if the schedule is subject to change. Information may be made available by electronic means.
- Public Notice Requirements.** Every calendar year, prior to the first application of aquatic pesticides, the discharger shall take steps to notify each water user within its district potentially affected governmental agencies. The notification shall include the following information:

⁹ A license is required for application of restricted material, as defined by DPR.

- a. A statement of the discharger's intent to apply aquatic pesticide(s);
- b. Name of pesticide(s);
- c. Purpose of use;
- d. General time period and locations of expected use;
- e. Any water use restrictions or precautions during treatment; and
- f. A phone number that interested persons may call to obtain additional information from the discharger.; ~~and~~
- ~~g. A statement indicating that a water user may request that water deliveries be stopped during aquatic pesticide application.~~

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5 Aquatic Pesticides Application Plan (APAP). The discharger shall develop an APAP that describes the ~~BMPs that will be followed for each project. Best Management Practices (BMPs) shall be developed to mitigate effects to water quality resulting from pesticide applications. The APAP shall be revised to improve BMP effective to taking into consideration such things as water quality and visual monitoring results and target weed and pest control.~~ contains the following elements:

- a. Description of the water system to which aquatic pesticides are being applied;
- b. Description of what weed(s) are being controlled and why;
- c. Discussion of control tolerances (i.e., how much growth can occur before action is necessary);
- d. Discussion of the factors influencing the decision to use aquatic pesticides in regards to those tolerances (pros and cons);
- e. Type(s) of aquatic pesticides used¹⁰, the method in which they are applied, and the adjuvants used;
- f. Description of the application area the treatment area in the system;
- g. Other control methods used (alternatives) and what their limitations are;
- h. How much product is needed and how this is determined;
- i. Monitoring plan, including the location of representative site(s);
- j. If applicable, list the gates are covered structures and provide an inspection of those gates of control structures to ensure they are not leaking.

¹⁰ List the types and the names of the aquatic pesticides most often used or anticipated to be used. If additional or alternative pesticides are used during the year, amend the APAP and note this in the annual report.

- k. If the Control Agency has been granted an exception, describe the exception period. If weeds are also controlled outside of this period, how is it ensured that receiving water criteria in not exceeded;
- l. Evaluation of other available BMPs and alternative control measures to determine if there are feasible alternatives to the selected aquatic pesticide application project that could reduce potential water quality impacts; and
- m. Description of the BMPs to be implemented.

6. Pesticide Application Log. The discharger shall maintain a log for each aquatic pesticide application. The application log shall contain, at a minimum, the following information:

- a. Date of application;
- b. Location of application;
- c. Name of applicator;
- d. List of gates or control structures in the ~~T~~treatment ~~A~~area -that may discharge to surface waters, if applicable;
- e. Time of gate or control structure closure and reopening, include any calculations used to determine closure and reopening times, if applicable;
- f. Application details, such as water temperature, flow or level of water body, time application started and stopped, and aquatic pesticide application rate and concentration;
- g. Visual monitoring assessment ; and
- h. Certification that applicator(s) followed the APAP.

E. Provisions:

1. **Permit Compliance.** The discharger must comply with all conditions of this General Permit including timely submittal of technical and monitoring reports as directed by the appropriate Regional Board's Executive Officer.

2. **Alternatives.** In accordance with APAP D.5.m, the discharger shall implement the identified alternative measures to the selected aquatic pesticide application project that could reduce potential water quality impacts.

~~2.3.~~ **Monitoring and Reporting.** The discharger shall comply with the provisions of the attached Monitoring and Reporting Program (MRP) contained in Attachment C to this General Permit and any revision thereto.

~~3.4.~~ **Standard Provisions.** The discharger shall comply with all the applicable items of the Standard Provisions and Reporting for Waste Discharge Requirements (Standard Provisions), which are part of this General Permit (Attachment ~~ED~~).

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- 4.5 General Permit Reference.** A copy of this General Permit shall be kept where key operating personnel can refer to the document. Key operating and site management personnel shall be familiar with its contents.
- 5.6 Monitoring Reports to USEPA.** When requested by USEPA, the discharger shall also submit Discharge Monitoring Reports to USEPA.
- 6.7 Change of Control Agency.** In the event of any change in the Control Agency that sought coverage under this General Permit, the original Control Agency shall notify the succeeding Control Agency of the existence of this General Permit by letter, a copy of which shall be immediately forwarded to the appropriate Regional Board. Upon receipt of the letter, Regional Board staff shall terminate coverage of the original Control Agency under this General Permit. The new Control Agency shall complete and submit to the Regional Board a revised NOI form (Attachment A) in accordance with Application A.1.
- 7.8 Qualified Biologist Certification Following Project Completion.** Upon completion of an aquatic pesticide project, public entities listed in Attachment E to this General Permit shall provide certification by a qualified biologist that beneficial uses of receiving waters accepting aquatic pesticides have been restored.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on ~~March 18, 2004~~ May 20, 2004.

AYE:

NO:

ABSENT:

ABSTAIN:

Debbie Irvin
Clerk to the Board



Terry Tamminen
California
Environmental
Protection Agency

State Water Resources Control Board

Arnold Schwarzenegger
Governor

Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5455
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100
FAX (916) 341-5463 • Internet Address: <http://www.swrcb.ca.gov>

DRAFT
Attachment A
to Water Quality Order
No. 2004-__-DWQ
~~February 10~~ **April 6, 2004**

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND PEST~~ CONTROL
IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG _____

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I. NOTICE OF INTENT STATUS (see instructions)

MARK ONLY ONE ITEM A. New Applicator B. Change of Information for WDID#

II. CONTROL AGENCY INFORMATION

A. Name			
B. Mailing Address			
C. City	D. County	E. State	F. Zip
G. Contact Person	H. Title	I. Phone	

III. RECEIVING WATER INFORMATION

A. Do wastes and pesticide residues discharge to (check all that apply):

- Canals, ditches, or other constructed conveyance facilities owned and controlled by Control Agency?
Name of the conveyance system: _____
- Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Control Agency
Owner's name: _____
Name of the conveyance system: _____
- Directly to river, lake, creek, stream, bay, ocean, etc.?
Name of water body: _____

B. Regional Water Quality Control Board(s) where application sites are located (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9):
REGION _____

(List all regions where pesticide application is proposed.)

IV. PESTICIDE APPLICATION INFORMATION

A. Target Organism: Algae Aquatic Weeds (surface) Aquatic Weeds (submerged)

OTHER (identify): _____

B. Aquatic Pesticides Used: List Name and Active ingredients

C. Period of Application: Start Date _____ End Date _____

D. Types of Adjuvants Used:

V. AQUATIC PESTICIDES APPLICATION PLAN

Has Aquatic Pesticides Application Plan been prepared and is the applicator familiar with its contents? Yes No
If not, when will it be prepared? _____

VI. NOTIFICATION

Have potentially affected public and governmental agencies been notified? Yes No

VII. VICINITY MAP AND FEE

A. Have you included vicinity map(s) with this submittal? YES NO
Separate vicinity maps must be submitted for each Region where a proposed discharge will occur.

B. Have you included payment of the filing fee (for first-time enrollees only) with this submittal? ... YES NO NA

VIII. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the permit, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: _____

B. Signature: _____ Date: _____

C. Title: _____



Terry Tamminen
California
Environmental
Protection Agency

State Water Resources Control Board

Arnold Schwarzenegger
Governor

Division of Water Quality

1001 I Street • Sacramento, California 95814 • (916) 341-5455
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DRAFT
Attachment A
to Water Quality Order
No. 2004—DWQ
February 10, 2004

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
WATER QUALITY ORDER NO. 2004—DWQ

STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED AND PEST CONTROL
IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG _____

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I. NOTICE OF INTENT STATUS (see instructions)

MARK ONLY ONE ITEM — A. New Applicator — B. Change of Information for WDID#

II. CONTROL AGENCY INFORMATION

A. Name					
B. Mailing Address					
C. City	D. County	E. State	F. Zip		
G. Contact Person		H. Title		I. Phone	

III. RECEIVING WATER INFORMATION

A. Do wastes and pesticide residues discharge to (check all that apply):

- Canals, ditches, or other constructed conveyance facilities owned and controlled by Control Agency?
Name of the conveyance system: _____
- Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Control Agency
Owner's name: _____
Name of the conveyance system: _____

3. Directly to river, lake, creek, stream, bay, ocean, etc.?
 Name of water body: _____

B. Regional Water Quality Control Board(s) where application sites are located (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9):

REGION _____
 (List all regions where pesticide application is proposed.)

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IV. PESTICIDE APPLICATION INFORMATION

A. Target Organism: _____ Algae _____ Aquatic Weeds (surface) _____ Aquatic Weeds (submerged)

_____ OTHER (identify): _____

B. Aquatic Pesticides Used: List Name and Active ingredients

C. Period of Application: Start Date _____ End Date _____

D. Types of Adjuvants Used:

V. AQUATIC PESTICIDES APPLICATION PLAN

Has Aquatic Pesticides Application Plan been prepared and is the applicator familiar with its contents? Yes No
 If not, when will it be prepared? _____

VI. NOTIFICATION

Have potentially affected public and governmental agencies been notified? _____ Yes No

VII. VICINITY MAP AND FEE

A. Have you included vicinity map(s) with this submittal? YES _____ NO _____
 — Separate vicinity maps must be submitted for each Region where a proposed discharge will occur.

B. Have you included payment of the filing fee (for first-time enrollees only) with this submittal? ... YES _____ NO _____ NA _____

VIII. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the permit, including developing and implementing a monitoring program, will be complied with."

Printed Name: _____

Signature: _____ **Date:** _____

Title: _____

IX. SUBMITTAL INFORMATION

Send the completed and signed form along with the filing fee (for first time enrollees only), supporting documentation, and vicinity map(s) to the appropriate Regional Board.

DRAFT

~~February 10~~ April 6, 2004

**INSTRUCTIONS
FOR COMPLETING THE NOI**

**WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND PEST~~
CONTROL IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG_____**

These instructions are intended to help you, the discharger, complete the Notice of Intent (NOI) form for the general National Pollutant Discharge Elimination System (NPDES) permit. **Please type or print clearly when completing the NOI form and vicinity map(s).**

Send the completed and signed form along with the filing fee, supporting documentation, and vicinity map(s) to the appropriate Regional Board. One NOI should be submitted by appropriate ~~Control Agency discharger~~ to cover all proposed discharges within the boundaries of each Regional Water Quality Control Board (Regional Board). If proposed discharges will occur in more than one Region, submit extra copies of the NOI and maps for each Region where a discharge will occur. Only one annual fee is required for each ~~Control Agency discharger~~.

Section I – Notice of Intent Status

Please mark whether this is the first time coverage under this General Permit has been requested or if this is a change of information for a discharge already covered under this General Permit. If this is a change of information, please supply the eleven-digit Waste Discharge Identification (WDID) number for the discharge.

Section II – Control Agency Information

- A. Enter the name of the Control Agency.
- B. Enter the street number and street name where mail and correspondence should be sent (P.O. Box is acceptable).
- C. Enter the city that applies to the mailing address given.
- D. Enter the county that applies to the mailing address given.
- E. Enter the state that applies to the mailing address given.
- F. Enter the zip code that applies to the mailing address given.
- G. Enter the name (first and last) of the contact person for the Control Agency listed above.
- H. Enter the contact person's title.
- I. Enter the contact person's daytime telephone number of the contact person.

Section III – Receiving Water Information

- A. Check all boxes that apply. At least one box must be checked.
 1. Check this box if the application site is a canal, ditch, or other constructed conveyance system owned and controlled by the Control Agency. Print the name of the conveyance system.

2. Check this box if the application site is a canal, ditch, or other constructed conveyance system owned and controlled by a different person or entity other than the Control Agency. Clearly print the name and the owner of the conveyance system.
 3. Check this box if the application site is not a constructed conveyance system (including application to river, lake, creek, stream, bay, ocean) and enter the name of the water body.
- B. List all Region numbers where pesticide application is proposed. Regional Board boundaries are defined in section 13200 of the California Water Code. The numbers for each Region are given below and a map is attached.
- | | |
|----------------------------------------------------|------------------------------------------------|
| 1- North Coast | 2- San Francisco Bay |
| 3- Central Coast | 4- Los Angeles |
| 5- Central Valley
(Sacramento, Fresno, Redding) | 6- Lahontan
(South Lake Tahoe, Victorville) |
| 7- Colorado River Basin | 8- Santa Ana |
| 9- San Diego | |

Section IV – Pesticide Application Information

- A. Check the appropriate target organism. If the target organism is not listed, check OTHER, and list the name or type of target organism in the space provided.
- B. List the name and active ingredients of each pesticide to be used.
- C. List the start and end date of proposed pesticide application season.
- D. List the name(s) and type(s) of adjuvants that will be used.

Section V – Aquatic Pesticides Application Plan (APAP)

An APAP must be prepared and the applicator familiar with its contents before aquatic pesticide application is authorized under this General Permit. If an APAP is not complete at the time of application, enter the date by which it will be completed.

Section VI – Notification

- ~~A. Print the name of the appropriate official. For a municipality, State, federal, or other public agency, this would be a principal executive officer, ranking elected official, or duly authorized representative. The principal executive officer of a federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of USEPA).~~
- ~~B. The person whose name is printed above must sign and date the NOI.~~
- ~~C. Enter the title of the person signing the NOI. Have you notified potentially affected governmental agencies, as required by Provision D.4 of the General Permit?~~

Section VII – Vicinity Map and Fee

- A. If you have included vicinity map(s) with your Form A submittal, check the YES box if you have not included the vicinity map(s), check the NO box. **NOTE:** Vicinity map(s) of the proposed

pesticide application site must be received before you can be covered by this General Permit. You must submit separate vicinity map(s) for each Regional Board service area where a discharge is proposed. If applying for coverage under Region 5, please send in two additional copies of the required map, if applying for coverage under Region 6, please send in one additional copy of the required map.

- B. Check the YES box if you have included payment of the annual fee for a Category 3 discharge specified in Title 23, California Code of Regulations, section 2200(b)(9) with your submittal. Check the NO box if you have not included this payment.

NOTE: 1. Payment of this fee is not necessary if you have paid an annual fee within the last year for coverage under the previous order, Order No. 2001-12-DWQ.
2. ~~2.~~ You will be billed annually and payment is required to continue coverage.

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Section VIII

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A. Print the name of the appropriate official. For a municipality, State, federal, or other public agency, this would be a principal executive officer, ranking elected official, or duly authorized representative. The principal executive officer of a federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of USEPA).

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B. The person whose name is printed above must sign and date the NOI.

C. Enter the title of the person signing the NOI.

STATE WATER RESOURCES CONTROL BOARD

Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100
(916) 341-5536 FAX: (916) 341-5543
Web Page: <http://www.swrcb.ca.gov>

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

NORTH COAST REGION (1)
5550 Skylane Blvd, Ste. A
Santa Rosa, CA 95403
(707) 576-2220 FAX: (707) 523-0135
Web Page: <http://www.swrcb.ca.gov/rwqcb1>

CENTRAL COAST REGION (3)
895 Aerovista Place, Ste 101
San Luis Obispo, CA 93401
(805) 549-3147 FAX: (805) 543-0397
Web Page: <http://www.swrcb.ca.gov/rwqcb3>

LAHONTAN REGION (6 SLT)
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
(530) 542-5400 FAX: (530) 544-2271
Web Page: <http://www.swrcb.ca.gov/rwqcb6>

SAN FRANCISCO BAY REGION (2)
1515 Clay Street, Ste. 1400
Oakland, CA 94612
(510) 622-2300 FAX: (510) 622-2640
Web Page: <http://www.swrcb.ca.gov/rwqcb2>

LOS ANGELES REGION (4)
320 W. 4th Street, Ste. 200
Los Angeles, CA 90013
(213) 576-6600 FAX: (213) 576-6640
Web Page: <http://www.swrcb.ca.gov/rwqcb4>

VICTORVILLE OFFICE (6V)
15428 Civic Drive, Ste. 100
Victorville, CA 92392-2383
(760) 241-6583 FAX: (760) 241-7308
Web Page: <http://www.swrcb.ca.gov/rwqcb6>

CENTRAL VALLEY REGION (5S)
11020 Sun Center Dr., #200
Rancho Cordova, CA 95670-6114
(916) 464-3291 FAX: (916) 464-4645
Web Page: <http://www.swrcb.ca.gov/rwqcb5>

COLORADO RIVER BASIN REGION (7)
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
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Web Page: <http://www.swrcb.ca.gov/rwqcb7>

FRESNO BRANCH OFFICE (5F)
1685 E. St.
Fresno, CA 93706
(559) 445-5116 FAX: (559) 445-5910
Web Page: <http://www.swrcb.ca.gov/rwqcb5>

SANTA ANA REGION (8)
California Tower
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
Web Page: <http://www.swrcb.ca.gov/rwqcb8>

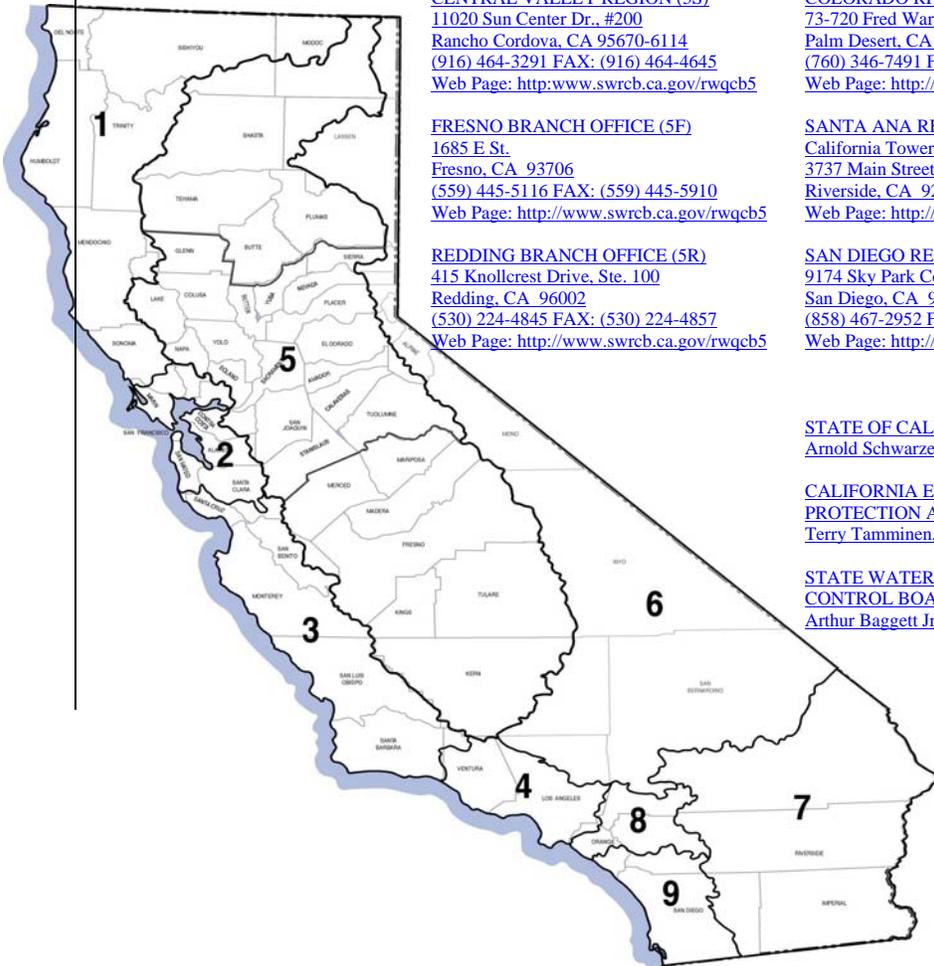
REDDING BRANCH OFFICE (5R)
415 Knollcrest Drive, Ste. 100
Redding, CA 96002
(530) 224-4845 FAX: (530) 224-4857
Web Page: <http://www.swrcb.ca.gov/rwqcb5>

SAN DIEGO REGION (9)
2174 Sky Park Court, Ste. 100
San Diego, CA 92123-4340
(858) 467-2952 FAX: (858) 571-6972
Web Page: <http://www.swrcb.ca.gov/rwqcb9>

STATE OF CALIFORNIA
Arnold Schwarzenegger, Governor

CALIFORNIA ENVIRONMENTAL
PROTECTION AGENCY
Terry Tamminen, Secretary

STATE WATER RESOURCES
CONTROL BOARD
Arthur Baggett Jr., Chairman



STATE WATER RESOURCES CONTROL BOARD
MONITORING AND REPORTING PROGRAM (MRP)

WATER QUALITY ORDER NO 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND PEST~~
CONTROL IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG _____

A. MONITORING PROVISIONS

~~1. Sampling Procedures~~ **Analysis.** ~~Unless otherwise approved by the appropriate Regional Water Quality Control Board (Regional Board) Executive Office, All~~ analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (Guidelines), promulgated by the U.S. Environmental Protection Agency (USEPA) ([Title 40 Code of Federal Regulations part 136](#)).

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Hardness shall be determined by the calculation method.

~~2. Sampling Procedures~~

Samples shall be collected using sampling procedures, which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity.

~~2.3. Monitoring Frequency.~~ If the discharger monitors any constituent required to be monitored under this General Permit more frequently than ~~required by this General Permit, specified,~~ the monitoring results shall be submitted to the appropriate Regional Board.

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~~2.4. Retention of Records.~~ The discharger shall retain records of all monitoring information including all calibration and maintenance records, copies of all reports required by this General Permit, and records of all data used to complete the application for this General Permit. Records shall be maintained for a minimum of three years from the date of the sampling, measurement, or report. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the appropriate Regional Board Executive Officer.

~~3.5. Monitoring Records.~~ Records of monitoring information shall include the following:

- a. The date, exact place, and time of sampling or measurements;
- b. The individuals who performed the sampling or measurements;
- c. The dates analyses were performed;
- d. The individuals who ~~performed~~ performed the analyses;

- e. The analytical techniques or method used; and
- f. The results of such analyses.

4.6. Device Calibration and Maintenance. All monitoring instruments and devices that are used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

B. RECEIVING WATER MONITORING

1. For each application at each site, the discharger shall prepare a map with a convenient scale showing the application area, treatment area, immediately adjacent untreated areas (if entire water body is not treated), and water bodies receiving treated water. The discharger shall also provide information on surface area and/or volume of application area and treatment area and any other information used to calculate dosage and quantity of each pesticide used at each application site. For acrolein applications, the map shall also show the acrolein injection points and locations of major canals, spillways, or gates that may flow to natural waters.

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Discharger shall also identify sampling locations described in B.3 through B.5 below and provide global positioning systems (GPS) coordinates for each sampling site.

2. Dischargers who operate canals, ditches, ponds, or other systems that allow dischargers reasonable control over their treated water through gates, weirs, locks, etc. shall inspect the integrity of their systems prior to every application within the system to ascertain that treated water does not unintentionally get discharged to streams, rivers, lakes, or other natural waterways.

1. choose, for each type of aquatic pesticide used, one representative monitoring site for each type of site. For example, if 2,4 D based pesticides are used only in concrete lined canals only one representative site is needed. However, if 2,4 D based pesticides are used in both concrete lined canals and in reservoirs, two representative sites would be required.

2. The discharger shall monitor the representative site(s) during the first application event of the season and 20 percent of the application event thereafter.

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3. The dischargers shall collect samples at 10 percent of all application sites for each type of aquatic pesticide used for each type of site. The 10 percent sampling sites shall be representative sites.

4. A discharger with 20 application sites or less shall collect samples at a minimum of two sites. A discharger with greater than 20 sites shall collect samples at 10 percent of all the sites. The number of representative sites shall be rounded to the nearest whole number using scientific number protocol. For example, if the number of sites is 25, the discharger must sample three representative sites.

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5.

6.5. The following monitoring is required for each sampling:

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a. **Background Monitoring**

Background samples ~~can~~ shall be collected upstream at the time of the application event, or they ~~can be at the Treatment Area, just prior~~ may be collected at the treatment area, just prior (up to 24-hours in advance of application) to the application event.

b. **Event Monitoring**

Event monitoring samples shall be collected immediately downstream of the treatment area in flowing waters or adjacent to the ~~Treatment Area,~~ treatment area in non-flowing waters, immediately after the application event or shortly after application, but after sufficient time has elapsed such that treated water will have entered the adjacent or downstream area.

c. **Post-Event Monitoring**

Post-event samples shall be collected within the ~~t~~ Treatment aArea and immediately downstream of the treatment area in flowing waters or adjacent to the ~~t~~ Freatment aArea in non-flowing waters ~~within~~ one-week after the application event.

7.6. The following parameters shall be analyzed for:

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TABLE 1 - MONITORING PARAMETERS

SAMPLE TYPE	CONSTITUENT/ PARAMETER	SAMPLE METHOD	LABORATORY METHOD	FREQUENCY
<u>Visual</u>	1. Site description (pond, lake, open waterway, channel, estimate of percent cover by vegetation, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.)	<u>Visual Observation</u>	<u>Not Applicable</u>	<u>First application and 20 percent of application events thereafter.</u>
<u>Visual</u>	1. Site description (pond, lake, open waterway, channel, estimate of percent cover by vegetation, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.)	<u>Visual Observation</u>	<u>Not Applicable</u>	<u>All applications at all sites</u>

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SAMPLE TYPE	CONSTITUENT/ PARAMETER	SAMPLE METHOD	LABORATORY METHOD	FREQUENCY
Physical	1. Temperature 2. Turbidity 3. Electrical conductivity/salinity 4. Total suspended solids	Grab	See USEPA Guidelines	First application and 20 percent of application events thereafter.
Physical	1. Temperature¹ 2. Turbidity² 3. Electrical conductivity/salinity²	Grab³	See USEPA Guidelines	All applications at 10 percent of all sites
Chemical	1. Active Ingredient 2. Nonylphenol or other surfactant 3. pH² 4. Dissolved Oxygen² 5. Hardness (CaCO₃)⁴ 6. 3-Hydroxypropanal⁵	Grab³	See USEPA Guidelines	All applications at 10 percent of all sites
Chemical	1. Active Ingredient 2. pH 3. Dissolved Oxygen 4. Hardness (CaCO₃) 5. Ammonia 6. Nitrate 7. Total Kjeldahl Nitrogen 8. Total Organic Carbon	Composite⁶	See USEPA Guidelines	First application and 20 percent of application events thereafter.
Toxicity	See Section C.	See Section C.	See Section C.	See Section C.
Sediment Toxicity	See Section D.	See Section D.	See Section D.	See Section D.
Bio-assessment	See Section E.	See Section E.	See Section E.	See Section E.

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~~C. CHRONIC TOXICITY MONITORING FOR COPPER-BASED AND ROTENONE-BASED PESTICIDES ONLY~~

~~The discharger shall conduct freshwater or saltwater chronic toxicity tests on grab samples taken from receiving water sample locations specified in this MRP.~~

¹ Field testing.

² Field or laboratory testing.

³ Samples shall be collected at three feet below the surface, or mid-depth if water body is less than six feet deep.

⁴ Required for copper applications only.

⁵ Required for acrolein applications only.

⁶ The samples shall be composites, using three equal volumes of water, each collected one foot below the surface, or mid-depth if water body is less than two feet deep.

~~1. Freshwater~~

~~For receiving waters in which the salinity is equal to or less than 1 part per thousand
— 95 percent or more of the time (freshwater):~~

- ~~a. The discharger shall conduct short term tests with Cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test); fathead minnow, *Pimephales promelas* (larval survival and growth test); and green alga, *Selenastrum capricornutum* (growth test) for the first test for each aquatic pesticide formulation used (screening period). After this screening period, monitoring shall be conducted using the most sensitive species, specific to each aquatic pesticide formulation.~~
- ~~b. The presence of chronic toxicity in freshwater shall be estimated as specified in USEPA's methods, (EPA/821 R-02-013).~~

~~2. Saltwater~~

~~For waters in which the salinity is greater than 1 part per thousand 95 percent or more of the time:~~

- ~~a. Chronic toxicity testing shall be conducted with *Macrocystis pyrifera* (giant kelp), *Haliotis rufescens* (red abalone), and *Atherinops affinis* (topsmelt), for the first test for each aquatic pesticide formulation used (screening period). After this screening period, monitoring shall be conducted using the most sensitive species specific to each aquatic pesticide formulation.~~
- ~~b. The presence of chronic toxicity in saltwater shall be estimated as specified in USEPA's methods (EPA/600 R-95-136).~~

~~3. Evaluation of Receiving Water Toxicity~~

~~If chronic toxicity is detected in treated waters, and upstream or untreated waters do not exhibit chronic toxicity for a sampling event, the discharger shall begin increased toxicity monitoring as described below. If upstream untreated chronic toxicity sampling exhibits toxicity, the sampling event is inconclusive and no additional monitoring is required.~~

~~4. Increased Toxicity Monitoring~~

~~If a sample indicates that the discharge is causing receiving water chronic toxicity, as determined under section C.3 of this MRP, the discharger shall:~~

- ~~a. Monitor for chronic toxicity at the next aquatic pesticide application to the site where the exceedance occurred. If toxicity is not observed, the Discharger shall continue regular monitoring as described in section B of this MRP.~~
- ~~b. If the second test (toxicity test required under section C.4.a of this MRP) indicates toxicity, the following dilution series shall be initiated: 12.5, 25, 50, 75, and 100 percent. Dilution series results will be used to determine the magnitude of the~~

~~toxicity and shall be submitted to the Regional Board with regularly scheduled monitoring reports under section D of this MRP or as required by the Regional Board.~~

~~Further, the discharger shall conduct a toxicity identification evaluation⁷ (TIE) and draft and implement additional best management practices (BMPs) in order to reduce toxicity caused by aquatic pesticide applications. The discharger shall also contact the Regional Board at the earliest convenience (no later than two weeks after toxicity is observed in the second test required under section C.4.a of this MRP) and report verbally or in writing that toxicity was detected and the steps that are being taken to address the toxicity.~~

~~e. The Discharger shall continue increased monitoring for toxicity (beginning with section C.4 of this MRP) at subsequent pesticide applications, conducting TIEs, and implementing BMP modifications until toxicity is no longer observed during a sampling event, as indicated in section C.4.a of this MRP.~~

~~d. If a Discharger's BMP modifications are ineffective and six consecutive sampling events indicate that receiving water toxicity is being caused by the Discharger, the Discharger shall conduct a toxicity reduction evaluation⁸ (TRE). The TRE shall be initiated within 15 days of the sixth exceedance and shall include all reasonable steps to eliminate the source of toxicity.~~

D.—Sediment Toxicity

~~———To address potential effects of cumulative applications in a season, sediment toxicity for pesticides which partition to sediments and can be remobilized. These pesticides include copper and trielopyr. Sediment testing shall be conducted once during each application season. Dischargers must comply with this requirement either individually or by joining with other dischargers to participate in a Regional Pesticide Monitoring Program (RPMP) or a Joint Pesticide Monitoring Program (JPMP). Geographic proximity would be not mean much if the discharger type varied greatly because of the difference in the water systems. For example, it would not make sense for Potter Valley Irrigation District to conduct joint monitoring with Lake County Food and Agriculture sampling in Clear Lake. It would make sense for Potter Valley Irrigation District to conduct joint monitoring with Solano Irrigation District as both use chelated copper in a canal system.~~

E.—Bioassessment

~~———The Control Agency/Discharger shall participate and coordinate with the Surface Water Ambient Monitoring Program (SWAMP) being developed by the State Water Resources Control Board (State Board) to complete this requirement. The SWAMP has begun work on a statewide effort to determine how to identify reference sites with the goal of Index of Biological Integrity (IBI) development. The Control Agency/Discharger may participate in a RPMP or JPMP to comply~~

⁷Toxicity Identification Evaluation is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases: characterization, identification, and confirmation, using aquatic organism toxicity tests.

⁸Toxicity Reduction Evaluation is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. For additional information, see Appendix 1-5 of the State Water Resources Control Board's (*Policy*).

~~with this requirement.~~

~~The purpose of this requirement is to detect biological trends in receiving waters and to collect data for the development of an IBI. The ultimate goals of bioassessment are to assess the biological integrity of receiving waters, to detect biological responses to pollution, and to identify probable causes of impairment not detected by chemical and physical water quality analysis.~~

~~The Control Agency/Discharger shall participate in and coordinate with the SWAMP to identify the most appropriate locations for bioassessment stations within the Stockton Urbanized Area.~~

~~The Control Agency/Discharger shall propose a bioassessment monitoring program by July 1 2005. Sampling shall begin within 30 days of approval of the sampling stations by the Regional Board Executive Officer.~~

~~The Control Agency/Discharger shall develop Standard Operation Procedures (SOPs) for the bioassessment monitoring program that describe all procedures and responsible parties. The SOPs must contain step by step field, laboratory, data entry, and QA/QC procedures. A copy of the SOPs shall be available to the Executive Officer upon request.~~

~~Field sampling must conform to the SOPs established for the California Stream Bioassessment Procedure (CSBP)⁹ when appropriate. A minimum of three replicate samples shall be collected at each bioassessment station once annually during the spring flow period (when flow is present) and possibly once during the fall pending flow conditions. For sampling of aquatic environments where the CSBP is not appropriate (e.g., an estuary or unwadable stream), the California Department of Fish and Game (DFG) and the Executive Officer shall be consulted in order to determine the most appropriate protocol to be implemented. Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and errors by the field crews, the receiving laboratory, and the Control Agency/Discharger. These forms shall be available to DFG or the Executive Officer upon request.~~

~~Taxonomic identification laboratories shall process the biological samples. This consists of subsampling organisms, enumerating and identifying taxonomic groups and entering the information into an electronic format. There should be intra laboratory QA/QC results for subsampling, taxonomic validation and corrective actions. Biological laboratories should also maintain reference collections, vouchered specimens (the Control Agency/Discharger can request return of their sample voucher collections) and remnant collections. Biological laboratories shall participate in an inter laboratory (external) taxonomic validation program at a recommended level of 20% for the first two years of the program. If there are no substantial QA/QC problems, the level of external validation may be decreased to 10% in year three upon approval by the Executive Officer. External QA/QC should be arranged through the DFG's Aquatic Bioassessment Laboratory in Rancho Cordova.~~

⁹ California Stream Bioassessment Procedure (Protocol Brief for Biological and Physical/Habitat Assessment in Wadable Streams), California Department of Fish and Game – Aquatic Bioassessment Laboratory, May 1999. Located at www.dfg.ca.gov/cabw/protocols.html.

The following results and information shall be included in the Annual Report:

- ~~1. All physical, chemical and biological data collected in the assessment;~~
- ~~2. Photographs and GPS locations of all stations;~~
- ~~3. Documentation of quality assurance and control procedures;~~
- ~~4. Analysis that shall include calculation of the metrics used in the CSBP;~~
- ~~5. Comparison of mean biological and habitat assessment metric values between stations and year to year trends;~~
- ~~6. Electronic data formatted to the DFG Aquatic Bioassessment Laboratory for inclusion in the Statewide Access Bioassessment Database and development of an Index of Biological Integrity for the region; and~~
- ~~7. Copies of all QA/QC documents from laboratories.~~

F.C. ADDITIONAL MONITORING

Dischargers that propose monitoring, as part of their CEQA compliance must also comply with that monitoring plan where the two plans differ.

G.D. REPORTING

1. All reports shall be submitted to the appropriate Regional Board. All reports submitted in response to this Order must comply with the provisions stated in "Standard Provisions and Reporting for Waste Discharge Requirements (NPDES)" (Attachment ~~CD~~), section B, Monitoring and Reporting Requirements.
2. Annual reports shall ~~be submitted to the appropriate Regional Board. The reports shall~~ contain the following information:

- a. An Executive Summary of discussing General Permit compliance or violation and the effectiveness of the APAP to reduce or prevent the discharge of pollutants associated with aquatic pesticide applications;
- b. A summary of monitoring data, including the identification of water quality improvements or degradation, and recommendations for improvements to the APAP (including proposed BMPs) based on the monitoring results. All receiving water monitoring data shall be compared to applicable water quality standards;
- c. An assessment of compliance with the General Permit. The assessment shall include the identification of water quality degradation and a comparison with applicable water quality standards. When the data indicate that discharges associated with aquatic pesticide applications are causing or contributing to exceedances of applicable water quality standards, a discussion of how the discharger plans to comply with this General Permit shall be included;
- b. Identification of BMPs and a meeting the General Permit ~~discussion of their effectiveness in requirements;~~

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- d. Identification of BMPs and a discussion of their effectiveness in meeting the General Permit requirements;
- ~~e. A discussion of BMP modifications addressing violations of this General Permit;~~
- ~~e. Sampling results for all required monitoring under section B and C of this MRP and any additional sampling conducted in compliance with section A.1 of this MRP. Sampling results shall indicate the collection date, Minimum Levels, Method Detection Limits for each constituent analysis, and a comparison with applicable water quality standards. Sampling results shall be tabulated so that they are readily discernible;~~
- ~~f. Recommend future monitoring and BMP modifications if needed based on evaluation of BMP effectiveness, water quality monitoring results, and visual monitoring results.~~
- e. A discussion of BMP modifications addressing violations of this General Permit;
- f. A map showing the location of each application and treatment area;
- ~~d. Types and amounts of aquatic pesticides used at each application event during the monitoring period;~~
- g. Types and amounts of aquatic pesticides used at each application event during each application;
- h. Information on surface area and/or volume of treatment area and any other information used to calculate dosage and quantity of each pesticide used;
- i. List of gates in the treatment area that may discharge to surface waters; time of gate closure and reopening, include any calculations used to determine closure and reopening times, if applicable;
- j. Sampling results for all required monitoring under section B of this MRP and any additional sampling conducted in compliance with section A.2 of this MRP. Sampling results shall indicate the name of the sampling agency or organization, detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map or description of each sampling site (i.e., address, cross roads, etc.), collection date, name of constituent/parameter and its concentration detected, minimum levels, method detection limits for each constituent analysis, name or description of water body sampled, and a comparison with applicable water quality standards, description of analytical QA/quality control plan. Sampling results shall be tabulated so that they are readily discernible;
- k. Recommendations to improve the monitoring program, BMPs, and APAP to ascertain compliance with this General Permit; and
- l. Proposed changes to the APAP and monitoring program.
- e.—

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MONITORING AND
REPORTING PROGRAM

DRAFT

~~February 10, April 6, 2004~~

Monitoring reports shall be submitted to the Regional Board Executive Officer in accordance with the following schedule:

<u>Reporting Frequency</u>	<u>Reporting Period</u>	<u>Report Due</u>
Annual	January 1-December 31	March 1

STATE WATER RESOURCES CONTROL BOARD

**STANDARD PROVISIONS AND REPORTING FOR
WASTE DISCHARGE REQUIREMENTS**

**WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND~~
~~PEST~~ CONTROL IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG _____**

A. General Provisions

1. **Duty to Comply** [Title 40, Code of Federal Regulations (CFR) 122.41(a)][California Water Code (CWC) 133811]
 - a. The Discharger must comply with all of the conditions of this General Permit. Any General Permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application.
 - b. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not been modified to incorporate the requirement.

2. **Duty to Mitigate** [40 CFR 122.41(d)]

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this General Permit, which has a reasonable likelihood of adversely affecting human health or the environment.

3. **Proper Operation and Maintenance** [40 CFR 122.41(e)],

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with this General Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a Discharger only when necessary to achieve compliance with the conditions of this General Permit.

4. **Permit Actions** [40 CFR 122.41(f)][CWC 13263(e)1][40 CFR 122.44(b)(1)]

- a. This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- b. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge, and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the Discharger so notified.

5. Property Rights [40 CFR 122.41(g)][CWC 13263(g)]

- a. This General Permit does not convey any property rights of any sort, or any exclusive privileges.
- b. All discharges of waste into water of the State are privileges, not rights.

6. Duty to Provide Information [40 CFR 122.41(h)]

The Discharger shall furnish the Regional Water Quality Control Board (Regional Board), the State Water Resources Control Board (State Board), or the U.S. Environmental Protection Agency (USEPA), within a reasonable time, any information which the Regional Board, State Board, or USEPA may request to determine compliance with this General Permit. Upon request, the Discharger shall also furnish to the Regional Board, State Board, or USEPA copies of records required by this General Permit to be kept.

7. Inspection and Entry [40 CFR 122.41(h)]

The Discharger shall allow the Regional Board, State Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this General Permit; and
- b. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this General Permit; and
- c. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this General Permit; and
- d. Sample or monitor, at reasonable times, for the purposes of ensuring permit compliance or as otherwise authorized by the Clean Water Act or the Porter-Cologne Water Quality Control Act, any substances or parameters at any location.

8. Bypass and Upset [40 CFR 122.41(m)] [40 CFR 122.41(n)]

a. Definitions.

- (1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (3) "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Prohibition of Bypass.

- (1) Bypass is prohibited, and the Regional Board may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) ~~(e)~~—The permittee submitted notices as required under 40 CFR 122.41(m)(3).

c. Conditions necessary for a demonstration of upset.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset as required in 24-Hour Reporting; and

- (4) The permittee complied with any remedial measures required under 40 CFR 122.41(d).

d. Burden of proof.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

9. **Transfers** [40 CFR 122.41(L)(3)] [CWC 133771] [40 CFR 122.61(a)(b)]

This General Permit is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or reissuance of the permit conditions to change the name of the Discharger and incorporate such other requirements as may be necessary under the Clean Water Act and the Porter-Cologne Water Quality Control Act.

10. **Severability**

The provisions of this General Permit are severable and, if any provision of this General Permit or the application of any of its provisions 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.

11. **Pollution, Contamination, or Nuisance** [CWC 13050]

Neither the treatment nor the discharge shall create a condition of pollution, contamination, or nuisance.

B. Monitoring and Reporting Requirements

1. **Signatory Requirements** [40 CFR 122-41(k)] [40 CFR 122.221]

- a. All permit applications or Notices of Intent (NOIs) submitted to the Regional Board, State Board, or USEPA shall be signed as follows:
 - (1) For a corporation: by a responsible corporate officer. For the purpose of this provision, a responsible corporate officer means: a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

- (3) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA).
- b. All reports required by this General Permit and other information requested by the Regional Board, State Board, or USEPA shall be signed by a person described in paragraph (a) of this provision 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 in paragraph (a) of this provision;
 - (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - (3) The written authorization is submitted to the Regional Board, State Board, or USEPA.
- c. If an authorization under paragraph (b) of this provision 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) of this provision must be submitted to the Regional Board, State Board, or USEPA together with any reports, information, applications, or NOIs to be signed by an authorized representative.
- d. Any person signing a document under paragraphs (a) or (b) of this provision 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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. **Monitoring Reports** [40 CFR 122.41(l) (4)]

- a. Monitoring results shall be reported at the intervals specified in this General Permit.
- b. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms approved by the Regional Board or State Board for reporting results of monitoring of pollutants and sludge use or disposal practices.

- c. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this General Permit.

3. **Compliance Schedules** [40 CFR 122.41(l) (5)]

Reports of compliance or noncompliance with interim and final requirements contained in any compliance schedule of this General Permit shall be submitted no later than 14 days following each schedule date.

4. **Twenty-Four Hour Reporting** [40 CFR 122.41(l) (6)]

- a. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- b. The following shall be included as information that must be reported within 24 hours under this paragraph:
 - (1) Any bypass which exceeds any effluent limitation in this General Permit.
 - (2) Any upset which exceeds any effluent limitation in this General Permit.
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed in this General Permit is to be reported within 24 hours. The Regional Board may waive the above required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours.

5. **Other Noncompliance** [40 CFR 122.41(l)(7)]

The Discharger shall report all instances of noncompliance not reported under Provisions (B.3) and (B.4) at the time monitoring reports are submitted. The reports shall contain the information listed in Provision (B.4).

6. **Other Information** [40 CFR 122.41(l) (8)]

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application or NOI, or submitted incorrect information in a permit application, NOI or in any report to the Regional Board, State Board, or USEPA, the Discharger shall promptly submit such facts or information.

7. **Planned Changes** [40 CFR 122 41(l)(1)]

The Discharger shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the General Permit nor to notification requirements under 40 CFR Part 122.42 (a) (1); or
- c. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application/NOI process or not reported pursuant to an approved land application plan.

8. **Anticipated Noncompliance** [40 CFR 122.41(l)(2)]

The Discharger shall give advance notice to the Regional Board or State Board of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

9. **Discharge Monitoring Quality Assurance (DMQA) Program** [State Board/USEPA 106 Partnership Agreement]

The Discharger shall conduct appropriate analyses on any sample provided by USEPA as part of the DMQA program. The results of such analyses shall be submitted to USEPA's DMQA manager.

C. Enforcement Provisions

1. The Clean Water Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of violation. Any person who negligently violates permit conditions implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 or more than \$25,000 per day for each violation, or by imprisonment of not more than one year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to and in some cases greater than those provided under the Clean Water Act. [40 CFR 122.41(a)(2)][CWC sections 13385 and 13387].
2. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit including monitoring reports or reports of compliance or

noncompliance shall be punished upon conviction by a fine of not more than \$10,000 per violation or by imprisonment for not more than six months per violation, or by both. [40 CFR 122-41(k)(2)].

3. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this General Permit shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years, or both. Higher penalties may be imposed for repeat offenders. [40 CFR 122.41(j)(5)].

**Attachment D
to Water Quality Order
No. 2004-___-DWQ**

Attachment D

**~~WATER QUALITY ORDER NO. 2004-___-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED AND
PEST CONTROL
IN WATERS OF THE UNITED STATES~~**

Total Copper Receiving Water Limitations

Receiving Water Hardness (mg/L)	Limitation (µg/L)
50	5.2
75	7.3
100	9.3
150	16.9
200	21.6
250	26.1
300	30.5
350	34.9
400	39.1
450	43.2
500	47.3
600	55.2
700	63.0
800	70.6
1000	85.5

Receiving water hardness shall be rounded to the nearest Attachment D value to determine applicable total copper receiving water limitations applicable to section C.1.c of this General Permit.

STATE WATER RESOURCES CONTROL BOARD**LIST OF PUBLIC ENTITIES GRANTED AN EXCEPTION
PURSUANT TO STATE BOARD POLICY FOR IMPLEMENTATION OF TOXICS
STANDARDS FOR INLAND SURFACE WATERS, ENCLOSED BAYS, AND ESTUARIES OF
CALIFORNIA (POLICY)****WATER QUALITY ORDER NO. 2004-__-DWQ
STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES FOR AQUATIC WEED ~~AND~~
~~PEST~~ CONTROL IN WATERS OF THE UNITED STATES
GENERAL PERMIT NO. CAG _____**

The public entities listed herein have prepared Initial Studies, Negative Declarations (ND), and Notices of Determination or Mitigated Negative Declarations (MND) for the discharge of aquatic pesticides in accordance with the California Environmental Quality Act [CEQA (Public Resources Code Section 21000 et seq.)] to comply with the exception requirements of section 5.3 of the Policy. The boards of each public entity, as the lead agencies under CEQA, approved the Final ND/MND and determined that the discharge of aquatic pesticides in their respective projects would not have a significant effect on the environment. These public entities have determined that the water quality or related water quality impacts identified in the environmental assessments of the ND/MND are less than significant. In addition to submitting the CEQA documentation, these public entities have also complied with the other exception requirements of section 5.3 of the Policy.

As required in Section 15096 of the CEQA Guidelines, the State Water Resources Control Board (State Board), as a Responsible Agency under CEQA, considered the ND/MND approved by the board of each public entity and finds that the projects will have less than significant water quality impact if the waste discharge requirements in this General Permit are followed. Accordingly, the public entities listed herein are hereby granted an exception pursuant to section 5.3 of the Policy.

The California Department of Food and Agriculture (CDFA) has determined that its ongoing projects to eradicate hydrilla are exempt from the requirements of CEQA because the activities are necessary to prevent or mitigate an emergency pursuant to Public Resources Code Section 21080 (b)(4). The bases for this determination are that the CDFA Hydrilla Program is mandated under sections 403 and 6048 of the Food and Agriculture Code and the Governor of California and/or the CDFA Secretary has declared that an emergency situation existed as each eradication project began. Although CDFA has determined the CDFA Hydrilla Program is exempt from CEQA, CDFA will coordinate all eradication activities with federal, state and local regulatory agencies to ensure no long-term significant environmental impacts occur.

As required in Section 15096 of the CEQA Guidelines, the State Board, as a Responsible Agency under CEQA, considered the exemption claimed by CDFA and finds that the projects will have less than significant water quality impact if the waste discharge requirements in this General Permit are followed. Accordingly, CDFA is hereby granted an exception pursuant to section 5.3 of the Policy, as

long as the Governor or the CDFA Secretary has declared that an emergency situation exists prior to project implementation.

Public Entities with Policy Section 5.3 Exception

1. Contra Costa [Water District](#)
2. Department of Food and Agriculture
3. [Department of Water Resources](#)
4. [Friant Water Users Authority](#)
5. [Marin Municipal Water District](#)
- ~~3-6.~~ Merced Irrigation District
- ~~4-7.~~ Metropolitan Water District of Southern California
- ~~5-8.~~ Modesto Irrigation District
- ~~6-9.~~ Nevada Irrigation District
- ~~7-10.~~ Oakdale Irrigation District
- ~~8-11.~~ Placer County Water Agency
- ~~9.~~ [San Joaquin Area Flood Control Agency](#)
- ~~10-12.~~ Solano Irrigation District
- ~~11-13.~~ South Feather Water and Power Agency
- ~~12-14.~~ South San Joaquin Irrigation District
- ~~13-15.~~ Turlock Irrigation District
- ~~14-16.~~ Yolo County Flood Control and Water Conservation District

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Definition of Terms

1. **Application Area** – The application area is the area to which aquatic pesticides are directly applied. (See Figure 1.)
2. **Application Event** – The application event is the time that introduction of the aquatic pesticide to the application area takes place. The application event is the time that the product is applied, not the length of time that it releases pesticide to the environment.
3. **Control Agency** - The Control Agency is the permitted discharger authorized by this General Permit. It is the agency responsible for controlling the weeds or pests. In some cases, such as irrigation districts, the Control Agency may own the conveyance system. In other cases, such as application to Delta waters, the Control Agency may not own the water body or conveyance system into which aquatic pesticides are applied. Additionally, the Control Agency may be the pesticide applicator, but it may also contract with a separate entity that does the actual pesticide application. In either case, however, the Control Agency must ensure that the discharge is in compliance with this General Permit.
4. **Pollutants associated with aquatic pesticide application** – Pollutants associated with aquatic pesticide application are the pollutants being regulated by this permit. They include aquatic pesticide residue, as well as misdirected and over-applied aquatic pesticide.
5. **Policy** – Policy is an abbreviation for the State Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*. It establishes procedures for implementing water quality standards for priority pollutants.
6. **Priority Pollutants** - Priority pollutants are listed in 40 Code of Federal Regulations, section 131.38(b)(1), and include acrolein and copper. Limits are set for priority pollutants in the California Toxics Rule.
7. **Project** –Projects are undertakings necessary to control a specified type of weed to an acceptable level in the treatment area that is being managed.
8. **Representative Site** – A site within and near the treatment area that is typical of the hydrologic and vegetative conditions present at the treatment area.
9. **Residues** – Residues are any pesticide byproduct, or breakdown product, or pesticide product that is present after the use of the pesticide to kill or control the target weed.
10. **Section 5.3 Exception** – Section 5.3 exception refers to a variance that dischargers may be granted, in accordance with section 5.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*. The variance allows dischargers to exceed water quality criteria for priority pollutants, as set by the California Toxics Rule.
11. **Treatment Area** – The treatment area is the area that is treated by the aquatic pesticide to control weeds. It is the responsibility of the Control Agency to define the treatment area. (See Figure 1.)

12. **Treatment Event** – The treatment event is the period during which the aquatic application is actively killing or controlling weeds within the treatment area. It starts upon initiation of the application event and proceeds until the concentration of the aquatic pesticide is below that which can kill the target weed.

Figure 1

