STATE WATER RESOURCES CONTROL BOARD

FACT SHEET

WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR DISCHARGES OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR¹ CONTROL (GENERAL PERMIT) GENERAL PERMIT NO. CAG990004

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 (<u>Headwaters, Inc. v. Talent Irrigation District</u>). The <u>Talent</u> 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 selecting Priority Pollutants requiring water quality-based effluent limitations and for calculating the limits for those Priority Pollutants.

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 that would assess receiving water toxicity caused by residual aquatic pesticides. All available data from the aquatic pesticide monitoring program was used to develop the terms and conditions of this General Permit.

CEQA EXEMPTION

Pursuant to California Water Code (Water Code) section 13389, State and Regional Water Quality Control Boards (Regional Boards) are exempt from the requirement to comply with Chapter 3, Division 13 of the Public Resources Code when adopting NPDES permits.

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; and all other

¹ Vector is defined in this permit as mosquitoes, black flies, and biting midges.

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, impoundments of and tributaries to waters of the United States, and wetlands adjacent to waters of the United States.

RELATED AQUATIC PESTICIDE REGULATIONS

The California Department of Pesticide Regulation (DPR) and the County Agricultural Commissioners (CACs) regulate the sale and use of pesticides in California. Pesticide applications subject to this General Permit must be consistent with permits issued by CACs and the pesticide label instructions approved by the U.S. Environmental Protection Agency (USEPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). According to federal law, pesticide label language is under the sole jurisdiction of USEPA. Label language and any changes thereto must be approved by USEPA before the product can be sold in this country. DPR cannot require manufacturers to make changes on labels; however, DPR can refuse to register products unless manufacturers address unmitigated hazards by amending the pesticide label. As part of the pesticide registration process, USEPA and 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. Registrants are required to submit data on the effects of pesticides on target pests (efficacy) as well as non-target effects. 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. Requirements that are specific to use in California are included in many pesticide labels that are approved by USEPA. Applicators of a pesticide designated as a restricted material must either be licensed by DPR or must work under the supervision of someone who is licensed. For aquatic pesticides, this must be a holder of a Qualified Applicator Certificate with the category "aquatic." Use must be reported to the CAC where required by law or by agreement with DPR.

State regulations require that the CAC determine if a substantial adverse environmental impact will result from the proposed use of a restricted material. If the CAC determines that this is likely, the commissioner may deny the Use Permit or may issue it under the condition that site-specific use practices be followed (beyond the label and applicable regulations) to mitigate potentially adverse effects. DPR conducts scientific evaluations of potential health and environmental impacts and provides commissioners with information in the form of suggested permit conditions. DPR's suggested permit conditions reflect minimum measures necessary to protect people and the environment. CACs use this information and its evaluation of local conditions to set site-specific limits in permits.

The State's pesticide regulations provide special procedures for vector control agencies operating under cooperative agreements [For example, see Food and Agricultural Code § 11408(e)]. The application of pesticides by vector control agencies is regulated by a special arrangement among the California Department of Health Services (DHS), DPR, CACs, and vector control agencies. Vector control agencies are not directly regulated by DPR. Instead, supervisors or applicators are licensed by DHS. Pesticide use by vector control agencies is reported to the CAC in accordance with a 1995

Memorandum of Understanding among DPR, DHS, and CACs for the *Protection of Human Health from the Adverse Effects of Pesticides* and with cooperative agreements entered into between DHS and vector control agencies, pursuant to Health and Safety Code section 116180.

MOSQUITO LIFE CYCLE

There are several species of mosquito that readily attack people, and domestic animals, and some species are capable of transmitting microbial organisms that cause diseases such as malaria and encephalitis in people, domestic animals, and wildlife.

Mosquitoes are classified as Insects of the Order Diptera. They undergo a complete metamorphosis, which involves four stages of development: egg, larva, pupa, and adult. The first three stages occur in water, but the adult female is an active flying insect that feeds upon the blood of humans and/or animals. The female mosquito lays her eggs directly on water or on moist substrates that may later be flooded with water. The eggs later hatch into larvae, the focus of most vector agencies control programs. The larvae go through four growth stages called instars. During these stages, the larvae continue to feed and grow in size. Once the larvae have developed to the fourth instar, they stop feeding and pupate. This is a resting (i.e., non-feeding) period. At this point, biological control (larvicides) and growth regulators no longer work as control measures because they require ingestion by the organisms. Draining or emptying the water, predation by fish and other aquatic predators, surface film larvicides, waves, or currents sufficient to flush pupae to open or moving water will kill the pupae.

Once larvae transform into pupae, internal changes occur and the adult mosquitoes take form. After a few hours to a few days in the pupae stage, the adult mosquitoes emerge at the water surface and seek shelter in shady, moist areas. Adult mosquitoes must find shelter during the heat to avoid dehydration and are generally most active during the hours around dusk and dawn, although some species are active throughout daylight hours or during the night. After a brief period of rest, adult females go in search of blood meals and the cycle continues. The time frame for this is highly variable, anywhere from less than a week to several months, depending primarily on the species and the temperature of the water. The warmer the water, the quicker the development will be. A very small amount of water in a container in the sun may produce a batch of adult mosquitoes very quickly.

Mosquito biology can follow two general scenarios. The first involves those species that lay their eggs in masses or rafts on the water's surface. Some of these species, which are found throughout the United States, often lay their eggs in natural or artificial water-holding containers found in the domestic environment, or in naturally occurring pools. In summer, the entire life cycle, from egg to adult, may be completed in <u>a week or less</u>.

The second scenario includes *Aedes* and *Ochlerotatus* mosquitoes that lay their eggs on moist soil or other substrates in areas that will be flooded with water later. After a few days, these eggs are ready to hatch but, if not flooded, <u>can withstand drying for months and longer</u>. In inland areas of the United States where these mosquitoes breed, heavy rains, irrigation, or other simultaneous flooding can produce millions of mosquitoes in a short time. Similar situations occur along coastal areas with

mosquitoes adapted to salt marsh habitats, where high tides can initiate simultaneous development of large mosquito populations. Some salt marsh mosquitoes are strong fliers and can sometimes travel up to 50 miles from the breeding site.

PUBLIC HEALTH IMPACTS

Female mosquitoes of nearly all species require blood from vertebrate animals to develop eggs, and many species bite people, pets, and livestock for this purpose. Mosquitoes are found throughout the world and many transmit pathogens, which may cause disease. These diseases include mosquito-borne viral encephalitis, dengue, yellow fever, malaria, and filariasis. Most of these diseases have been prominent as endemic or epidemic diseases in the United States in the past, but today, only the insect-borne (arboviral) encephalitides occur annually and dengue occurs periodically in this country. The most important consequence of this is the transmission of microorganisms that cause diseases such as western equine encephalomyelitis and St. Louis encephalitis. Both of these diseases can cause serious, sometimes fatal neurological ailments in people. (Western equine encephalomyelitis virus also causes disease in horses.) Western equine encephalomyelitis infections tend to be more serious in infants while St. Louis encephalitis can be a problem for older people. These viruses are normally infections of birds or small mammals. During such infections, the level of the virus may increase in these infected animals facilitating transmission to humans by mosquitoes.

Human cases of encephalitis range from mild to very severe illnesses that, in a few cases, can be fatal. Other pathogens transmitted by mosquitoes include a protozoan parasite, which causes malaria, and *Dirofilaria immitis*, a parasitic roundworm and the causative agent of dog heartworm. Disease carrying mosquito species are found throughout the United States, especially in urban areas and coastal or inland areas where flooding of low lands frequently occurs. Even when no infectious diseases are transmitted by mosquitoes, they can be a health problem to people and livestock. Mosquito bites can result in secondary infections, allergic reactions, pain, irritation, redness, and itching.

WEST NILE VIRUS

The West Nile virus (WNV), which can also cause encephalitis, was found in the northeastern United States for the first time in 1999 and is a good example of infected animals facilitating transmission to humans by mosquitoes. Since then, more than 13,000 cases of infection with WNV have been detected in 45 states, including California. Most people and horses that are infected with WNV do not become ill or have only mild symptoms. In rare cases, the virus can cause a more serious condition called encephalitis, an inflammation of the brain, which is potentially fatal.

Numerous local agencies throughout California routinely conduct surveillance and control of mosquitoes and the diseases they transmit. In 2000, the statewide surveillance program added WNV to the list of diseases monitored. In 2002, WNV was detected for the first time in California in a single human case in Los Angeles. In 2003, WNV was detected in humans in three different counties in California: Riverside (September 28), Imperial (October 5), and Los Angeles (October 8). WNV has resulted in over 540 deaths in the country since it was first detected in 1999.

OTHER PUBLIC HEALTH IMPACTS

In addition to transmitting pathogenic disease, vectors also can cause significant impacts to the public in general, to farm workers and other outdoor workers in particular, to outdoor recreation and tourism, and to real estate values, etc., and therefore are recognized as public nuisances under the law. (California Health and Safety Code section 2002(j).) Specifically, the California Legislature also has recently found that, "the protection of Californians and their communities against the discomforts and economic effects of vector-borne diseases is an essential public service that is vital to public health, safety, and welfare." (Health and Safety Code section 2001(b)(3); Senate Bill No. 1588 (2002))

WATER QUALITY STANDARDS

The federal Clean Water Act 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. [Title 40 Code of Federal Regulations (CFR) section 130.2(c) and 131.3(i)].

In California, the *Water Quality Control Plans* or Basin 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.

EFFLUENT LIMITATIONS

NPDES permits for discharges to surface waters must meet all applicable provisions of Sections 301 and 402 of the Clean Water Act. 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.

The discharge of aquatic pesticides is not considered a discharge of pollutants according to the Ninth Circuit Court.² The discharge of pollutants occurs within the receiving waters after the pesticide has accomplished its purpose and becomes a residual.

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 permit limits as necessary to meet water quality standards. Generally, effluent limitations are expressed as numerical limitations, and 40 CFR §122.44 describes how these are developed. Where it is not feasible to establish numeric effluent limitations, the State Board is authorized to adopt permits with BMPs instead of numeric effluent limitations.

² Headwaters, Inc. v. Talent Irrigation District (9th Cir. 2001) 243 F.3d 526.

[40 CFR §122.44(k)] It is not feasible for the State Board to establish numeric effluent limitations for pollutants in discharges associated with aquatic pesticide applications because: (1) Aquatic pesticides are applied directly to the water body and/or to organisms in the water or on the water surface and are not considered pollutants until some time after actual discharge. Therefore, in the application of aquatic pesticides, there is no effluent per se; (2) There may be numerous short duration intermittent pesticide releases to surface waters from many different locations; and (3) Treatment of all these releases to meet numeric effluent limitations would be impractical and may render them useless for aquatic pesticide control. Therefore, the effluent limitations contained in this General Permit are narrative and include requirements to implement appropriate BMPs, including compliance with all pesticide label instructions. 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 Area³ and to allow for full restoration of water quality and protection of beneficial uses of the receiving waters both inside and outside the Treatment Area following completion of resource or pest management projects.

RECEIVING WATER LIMITATIONS

Residual⁴ chemicals produced by the application of aquatic pesticides to natural water bodies must meet applicable CTR criteria and State or Regional Boards' WQOs outside the Treatment Area any time after pesticide application has started and inside the Treatment Area after completion of the project. To protect all designated beneficial uses of the receiving water, the most protective (lowest) and appropriate CTR criteria and/or WQOs in the *Water Quality Control Plans* for a particular water body must be met.

Pesticide formulations contain disclosed "active" ingredients that yield toxic effects on target organisms and may also have toxic effects on non-target organisms. Residual active ingredients that do not contain pollutants for which there are applicable numeric CTR criteria may still have toxic effects on receiving water bodies. The inactive or "inert" ingredients of aquatic pesticides are trade secrets and have not been publicly disclosed. 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. In this General Permit, inert ingredients are not considered on a constituent-by-constituent basis because the aquatic pesticides have been through USEPA and DPR registration processes where toxic effects of active ingredients and entire formulations have been analyzed. USEPA regulates pesticide use through strict labeling requirements in order to mitigate negative impacts to human health and the environment, and DPR environmental and medical toxicologists review toxicity data on formulations and can deny registration or work with registrants or CACs to impose additional requirements in order to protect human health or the environment.

USEPA and DPR require that aquatic pesticides undergo toxicity testing and meet specific toxicity requirements before registering the pesticide for application to surface waters. USEPA has found that the application of properly registered aquatic pesticides pose a minimum threat to people and the

³ The Treatment Area is defined as the area that is treated for vector control.

⁴ "Residual" 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.

environment. In addition, the effects of these pesticides on water quality will be mitigated through compliance with FIFRA label requirements, application of BMPs, and monitoring.

BEST MANAGEMENT PRACTICES

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 appropriate BMPs for different types of applications and different types of waters.

Much of the BMP development has been incorporated in the pesticide regulation process by the USEPA, DPR, DHS, and CACs. The dischargers must be licensed by DPR or DHS if such licensing is required for the aquatic pesticide application project. The pesticide use must be consistent with the pesticide label instructions and any Use Permits issued by CACs.

A pesticide label has been reviewed by both USEPA and DPR scientists 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. 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.

A Use Permit issued by the CAC incorporates applicable suggested permit conditions from DPR and local site-specific conditions necessary to protect 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.

This General Permit requires that dischargers implement BMPs when implementing aquatic vector control programs to mitigate effects to water quality resulting from pesticide applications. Dischargers are required to consider alternative control measures to determine if there are feasible alternatives to the selected aquatic pesticide application project that could reduce potential water quality impacts. If the discharger identifies alternative control measures to the selected aquatic pesticide application project that could reduce potential water quality impacts and that are also feasible, practicable, and cost-effective, the discharger shall implement the identified alternative measures.

The selection of control measures that use non-toxic and less toxic alternatives is an example of an effective BMP. Vector control agencies can select larvicides for vector control in some situations that have very low toxicity and pose very little or no threat to the environment. Specifically, (a) for microbial larvicides (e.g., Bacillus thuringiensis israelensis, Bacillus sphaericus), USEPA has concluded that they do not pose risks to wildlife, non-target species, or the environment; and (b) for methoprene, USEPA has concluded that, as used in vector control programs, it does not pose unreasonable risks to wildlife or the environment. Thin film larvicides (e.g., Agnique) also have low inherent toxicity.

The dischargers should continue to examine the possibility of alternatives to reduce the need for aquatic pesticides. Such methods include:

- 1. Applying pesticide only when vector larvae are present at a level that will constitute a nuisance.
- 2. Using the least intrusive method of pesticide application.
- 3. All errors in application and spills are reported to the proper authority.
- 4. Informing the public of planned spray activities.
- 5. Public education efforts to reduce potential vector breeding habitat.
- 6. Applying a decision matrix concept to the choice of the most appropriate formulation.
- 7. Staff training in the proper application of pesticides and handling of spills.

Aquatic pesticides that are applied in accordance with FIFRA label requirements are not considered pollutants. Pesticide residuals or by-products that are discharged from the Treatment Area or that persist in the water body after a treatment has finished actively controlling target species are considered pollutants.

Since aquatic pesticides are not considered pollutants until after they have been added to the Treatment Area, traditional effluent limitations cannot be used to assess compliance with numeric or narrative limitations. This General Permit requires that aquatic pesticide applicators meet receiving water limitations at the point of any discharge from the Treatment Area and in the Treatment Area after treatment is completed.

MONITORING REQUIREMENTS

This General Permit requires that dischargers comply with the Monitoring and Reporting Program (MRP) that is incorporated as Attachment B to this General Permit. Dischargers are also required to submit technical and monitoring reports as directed by the appropriate Regional Board Executive Officer.

The goal of the MRP is to assess the effectiveness of BMPs and compliance with the receiving water limitations specified in this General Permit.

The discharger may optionally participate in a group monitoring effort. The intent is to gather information on the persistence of residual aquatic pesticides relative to the rate of application.

PERMIT COVERAGE/NOTIFICATION REQUIREMENTS

This General Permit addresses the application of pesticides to Treatment Areas for the control of vectors. Aquatic pesticides that are applied to waters of the United States in accordance with FIFRA label requirements are not considered pollutants. However, pesticides or by-products that persist in or leave the Treatment Area after a specified treatment period are considered pollutants and require coverage under this General Permit.

This General Permit does not cover indirect or non-point source discharges from agricultural or other applications of pesticides to land that may be conveyed in storm water, irrigation runoff, or aerial

applications. This General Permit does not cover applications of pesticides that are not registered for use on aquatic sites. This General Permit does cover the use of certain properly registered and applied aquatic pesticides whose residuals constitute discharges of "pollutants" to waters of the United States.

The basic requirements of this General Permit include:

- 1. The discharger must follow all pesticide label instructions and any Use Permits issued by CACs.
- 2. The discharger must implement BMPs.
- 3. The discharger must comply with any applicable discharge limitations, found in the Discharge Specifications section of this General Permit.
- 4. The discharger must comply with monitoring requirements.

To obtain coverage under this General Permit, a Notice of Intent (NOI) and the first annual fee must be submitted to the appropriate Regional Board(s). To be eligible, dischargers must be licensed by DPR or DHS if such licensing is required to apply aquatic pesticides. A separate enrollment is 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. Only one annual fee must be submitted for all covered discharges from one entity.

Signing the certification on the NOI signifies that the discharger intends to comply with the provisions of this General Permit. Dischargers are authorized to discharge upon submission of a complete and accurate NOI application for coverage. The NOI is included as Attachment A within this General Permit package. The fully completed NOI, a project map, and first annual fee constitute a complete application for coverage under this General Permit. An NOI must be signed to be valid. Dischargers who submit a valid NOI application are not required to submit an individual permit application.

The authorization to discharge under this General Permit is terminated upon receipt of a Notice of Exclusion (NOE)⁵ or upon the adoption of either an individual or other general NPDES permit covering the discharge. The discharger must submit additional information if requested by the State or Regional Board. The Regional Board may determine that a discharger submitting an NOI is not eligible for coverage under this General Permit and may require submittal of an application for an individual permit. Individual application forms will be provided by the appropriate Regional Board. The completed NOI application must be submitted to the appropriate Regional Board. A list with the Regional Boards and their addresses is provided with the instructions for completing the NOI.

⁵ An NOE is a one-page notice that indicates that the proposed discharger is NOT eligible for coverage under this General Permit and states the reason why.

STATE WATER RESOURCES CONTROL BOARD

WASTE DISCHARGE REQUIREMENTS

WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE DISCHARGES OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR CONTROL (GENERAL PERMIT) GENERAL PERMIT NO. CAG990004

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

- States may request authority to issue general National Pollutant Discharge 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 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 §122.28(a)(1) allows NPDES permits to be written to cover a category of discharges within State political boundaries.
- 3. 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, (<u>Headwaters, Inc. v. Talent Irrigation District</u>). Because of the serious public health, safety, and economic implications of delaying pesticide applications, the State Board adopted Water Quality 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.
- 4. In August 2001, Waterkeepers Northern California (Waterkeepers) filed a lawsuit against the State Board challenging several aspects of Order No. 2001-12-DWQ.
- 5. In a settlement of the Waterkeepers' lawsuit, the State Board agreed to fund a comprehensive aquatic pesticide monitoring program that would assess receiving water toxicity caused by residual aquatic pesticides. All available data from the aquatic pesticide monitoring program were used to develop the terms and conditions of this General Permit.
- 6. This General Permit is intended to cover short-term or seasonal discharges of pollutants to waters of the United States associated with the application of aquatic pesticides for vector control. Vectors constitute a serious threat to public health. To avoid the adverse consequences from these harmful or nuisance organisms, the waters are treated with aquatic pesticides by vector control agencies.

- 7. This General Permit is intended to cover discharges from the use of the following active ingredients: Bacillus sphaericus (bs), Bacillus thuringiensis var. israelensis (bti), monomolecular film, petroleum oil, paraffinic white mineral oil, dimilin, S-methoprene, and temephos.
- 8. 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 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 Area¹ 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).
- 9. As part of the pesticide registration process of pesticides for use in California, USEPA and the California Department of Pesticide 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.
- 10. 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 and any Use Permits issued by the CACs. If applying a pesticide designated as a restricted material, then applicators must either be licensed by DPR or work under the supervision of someone who is licensed. 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..
- 11. DPR regulates the use of pesticide-treated commodities and sites where necessary to ensure that pesticide residuals 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 residuals from treated sites. This includes regulation of wastes generated by applications not in accordance with all laws and regulations, including drift from applications.
- 12. The State's pesticide regulation laws provide special procedures for vector control agencies operating under a cooperative agreement. The application of pesticides by vector control agencies is regulated by a special and unique arrangement among the California Department of Health Services (DHS), DPR, CACs, and vector control agencies. Vector control agencies are not directly regulated by DPR. Supervisors or applicators of restricted pesticides to control public health pests must be licensed by DHS. Pesticide use by vector control agencies is reported to the CACs in accordance with a 1995 Memorandum of Understanding among DPR, DHS, and the CACs for the Protection of Human Health from the Adverse Effects of Pesticides and with cooperative agreements entered into between DHS and vector control agencies pursuant to Health and Safety Code Section 116180.

¹ The Treatment Area consists of the area that is treated for vector control.

- 13. Pesticide formulations may include "active ingredients"² and "inert ingredients."³ Adjuvants⁴ 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.
- 14. For the purposes of this General Permit, aquatic pesticides or breakdown products that persist in the water body (residuals) 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.
- 15. Although a discharge may be eligible for coverage under this General Permit, the appropriate Regional Water Quality Control Board (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, the applicability of this General Permit to the discharge is immediately terminated on the effective date of the other permit.
- 16. If the area of aquatic pesticide application extends beyond a Regional Board boundary, the discharges in each Region 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.
- 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. This category is appropriate because aquatic pesticide applications incorporate Best Management Practices (BMPs) to control potential impacts to beneficial uses, and this General Permit prohibits aquatic pesticide residuals from causing exceedance of water quality objectives. The annual fee associated with this rating can be found in section 2200(b)(9) of Title 23.
- 18. The State Board has considered antidegradation pursuant to 40 CFR §131.12 and State Board Resolution 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. Therefore, this General Permit is consistent with State and federal antidegradation policies.
- 19. This General Permit does not authorize any "take" of endangered species. Section 3(19) of the Endangered Species Act defines "take" to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. 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.

² Active ingredients are ingredients publicly disclosed by the manufacturer 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 applicator, based on site characteristics, and typically increase the effectiveness of aquatic pesticides on target organisms.

- 20. There may be other non-toxic or less toxic control measures available to minimize the discharge of wastes to waters of the State. 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 pest management measures.
- 21. The designated beneficial uses of surface waters throughout the State may include municipal, domestic, 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 Regional Board Water Quality Control Plan (Basin Plan) designates additional or different beneficial uses, the Basin Plan shall control.
- 22. USEPA establishes water quality criteria for Priority Pollutants in the National Toxics Rule and the California Toxics Rule (CTR), and Regional Boards establish water quality objectives for Priority Pollutants in Basin Plans. The State Board's *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (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.
- 23. 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 objectives/criteria had not yet occurred. Therefore, Order No. 2001-12- DWQ was issued as a limited-term permit, which expired on January 31, 2004. During the term of Order No. 2001-12-DWQ, the public entities subject to this General Permit were to complete necessary CEQA documents and prepare other submittals to satisfy the criteria for the categorical exception. These activities would have provided the basis for future full-term permits.
- 24. 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.
- 25. 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.
- 26. The State Board, in a public hearing, heard and considered all comments pertaining to the discharges to be regulated by this General Permit.
- 27. This permit 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 who have submitted a NOI and annual fee shall comply with the following:

A. Application

Dischargers that apply aquatic pesticides for vector control to waters of the United States are eligible for coverage under this General Permit provided that:

- 1. The first time discharger submits to the appropriate Regional Board a complete and accurate NOI to comply (Attachment A), project map, and first annual fee 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 Notification of Exclusion (NOE) from the Regional Board. The discharger's authority to discharge under this General Permit terminates upon receipt of an NOE.
- 4. If the discharger receives a request to submit an application for an individual or other general permit from the State Board or from a Regional Board, the discharger will continue to be covered by this General Permit until covered by an individual or other general NPDES permit.

B. Discharge Prohibition

The discharge of wastes other than as described in this General Permit is prohibited.

C. Effluent Limitations

- 1. The discharge of wastes shall not create or cause conditions of nuisance or pollution.
- 2. The discharge shall not cause or contribute to long-term adverse impacts on beneficial uses of waters of the United States.
- 3. The discharge shall not adversely impact biologically sensitive or critical habitats, including, but not limited to, habitat of species listed under federal or State endangered species laws.
- 4. Discharges shall not adversely impact human health or the environment.
- 5. Discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan or in the applicable Regional Board Basin Plan.

- 6. The use of malathion in surface waters of the State shall be allowed <u>only</u> under the following condition:
 - a. As a result of consultation between DHS and State Board in response to the development of a human health emergency as determined by the DHS; or
 - b. A state or local health officer, in agreement with State Board, may order temporary suspension of permit conditions to protect public health in the event of a vector-borne disease outbreak.
- 7. The discharge of aquatic pesticides must comply with all FIFRA label instructions, DPR and DHS regulations, and any Use Permits issued by CACs.
- 8. The discharge of aquatic pesticides shall be managed using BMPs (discussed in section F.2.) to minimize the areal extent and duration of impacts caused by the discharge of pollutants and to demonstrate that, following completion of resource or pest management projects, the water quality of the receiving waters is equivalent to the pre-application state.

D. Receiving Water Limitations

Receiving waters shall be free of toxics in toxic amounts outside the Treatment Area during treatment and in the Treatment Area after project completion.

E. Aquatic Pesticide Use Requirements

- 1. License Requirements. Dischargers must be licensed by DPR or DHS if such licensing is required for the aquatic pesticide application project. The pesticide use must be consistent with FIFRA pesticide label instructions and any Use Permits issued by CACs.
- 2. **Potentially Affected Agencies.** Prior to initial discharge under this General Permit, the discharger shall notify potentially affected public and governmental agencies.
- 3. **Surveillance Schedule.** When requested, the discharger shall provide a phone number to persons interested in the discharger's surveillance schedule. The discharger shall provide the requester with the most current surveillance schedule and inform the requester if the schedule is subject to change.
- 4. **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. The location of the treatment area (e.g., address, crossroads, or map coordinates);
 - c. Application details including flow rate, surface water area, volume of water treated, aquatic pesticide(s) and adjuvants used, and volume or mass of each component discharged;
 - d. The names of the water bodies treated (i.e., canal, creek, lake, etc.);

- e. Name of applicator; and
- f. Documentation of BMP activities in compliance with this General Permit.

F. 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. **Notification.** Prior to initial discharge under this General Permit the discharger shall take steps to notify potentially affected public and governmental agencies.
- 3. **BMPs.** The discharger shall implement BMPs when discharging aquatic pesticides for vector control. BMPs shall be developed to mitigate effects to water quality resulting from pesticide applications. Dischargers shall consider alternative control measures to determine if there are feasible alternatives to the selected aquatic pesticide application project that could reduce potential water quality impacts. If the discharger identifies alternative control measures to the selected aquatic pesticide application project that could reduce and that are also feasible, practicable, and cost-effective, the discharger shall implement the identified alternative measures.

The dischargers will follow BMPs that are designed to maximize efficacy of control efforts and minimize adverse impacts to the environment. The steps that will be followed to identify appropriate BMPs include:

- a. *Preliminary site evaluations*. The discharger will conduct a site inspection to verify the need for treatment, options to treatment (including non-toxic and less toxic alternatives), and suitability of the site for treatment.
- b. *Secondary site evaluations*. The discharger will determine the type and intensity of treatment needed. This evaluation will include measurement and analysis of indicators to provide information on potential efficacy and water quality impacts.
- c. *Alternative control measures*. The discharger will evaluate 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.
- d. *Treatment*. Immediately prior to treatment, the discharger will examine a series of indicators and modify treatment plans accordingly. These indicators may include day length, precipitation, recreational activity, sunlight, tidal water exchange, water depth, water flows, water turbidity, and wind. If this examination indicates a potential for reduced control efficacy and/or heightened water quality impacts, the treatment will be rescheduled.
- e. *Post-treatment*. The discharger will assess control efficacy and water quality impacts. The results of this assessment will be evaluated by the discharger to refine project operations through an adaptive management process.

- 4. **Monitoring and Reporting.** The discharger shall comply with the provisions of the attached Monitoring and Reporting Program (MRP), Water Quality Order No. 2004-0008-DWQ, contained in Attachment B to this General Permit and any revision thereto.
- 5. **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 C).
- 6. **Applicable Regional Board(s).** If the area of aquatic pesticide application extends beyond a Regional Board boundary, then the discharges in each Region shall be covered by an NOI. Only one annual fee is required for all discharges from one entity.
- 7. **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.
- 8. **Monitoring Reports to USEPA.** When requested by USEPA, the discharger shall also complete and submit Discharge Monitoring Reports to USEPA.
- 9. **Change of Ownership.** In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this General Permit by letter, a copy of which shall be immediately forwarded to the appropriate Regional Board. The new discharger shall complete and submit to the State Board a revised NOI (Attachment A) in accordance with Application A.1.

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, May 20, 2004.

- AYE: Arthur G. Baggett, Jr. Peter S. Silva Richard Katz Gary M. Carlton Nancy H. Sutley
- NO: None
- ABSENT: None
- ABSTAIN: None

ice huin Debbie Irvin

Clerk to the Board



Protection



State Water Resources Control Board

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

ATTACHMENT A

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR DISCHARGES OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR CONTROL GENERAL PERMIT NO. CAG990004

I. NOTICE OF INTENT STATUS (See Instructions)

MARK ONLY ONE ITEM 1. New Applicator 2. Change of Information for WDID#

II. PESTICIDE APPLICATOR INFORMATION

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

III. RECEIVING WATER INFORMATION

A.	A. Provide a description of the types of waters of the United States that are usual treatment areas for potential					
	vector control:					

NOTICE OF INTENT WATER QUALITY ORDER NO. 2004-0008-DWQ

B.	Regional Water Quality Control Board(s) where application sites are located (Region 1, 2, 3, 4, 5, 6, 7, 8, or 9): REGION(S)	
	(List all regions where pesticide application is proposed.)	
C.	Name of receiving water(s): (river, lake, creek, stream, bay, ocean):	

IV. PESTICIDE APPLICATION INFORMATION

A. Target Organism:MosquitoBlack Fly	Biting Midge
OTHER (identify):	
B. Aquatic Pesticides Used: List Name and Active ingredients:	
C. Period of Application: Start Date H	End Date
D. Types of Adjuvants Used:	

V. VICINITY MAP AND FEE

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

VI. MONITORING AND REPORTING REQUIREMENTS

This permit includes a requirement to develop and implement an Individual Pesticide Monitoring Plan or			
participate in a Regional Pesticide Monitoring Program. Check the applicable Box or Boxes.			
I will develop an Individual Pesticide Monitoring Plan in accordance with the permit requirements \dots			
I will participate in a Regional Pesticide Monitoring Program developed in accordance with the			
Permit requirements			

NOTICE OF INTENT WATER QUALITY ORDER NO. 2004-0008-DWQ

VII. 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: ______

VIII. FORM A SUBMITTAL INFORMATION

Send the completed and signed form A along with the filing fee, supporting documentation, and vicinity map(s) to the appropriate Regional Board.

ATTACHMENT A

INSTRUCTIONS

FOR COMPLETING THE NOTICE OF INTENT TO DISCHARGE

WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR CONTROL (GENERAL PERMIT) GENERAL PERMIT NO. CAG990004

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).

One NOI should be submitted by each owner/agency 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 owner/agency.

Section I – NOI Status

Please mark whether this is the first time requesting coverage under this General Permit 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 – Pesticide Applicator Information

- **A.** Name The name (first and last) of the owner/operator. If the owner/operator is a company or agency, put the name of the company or agency in this space.
- **B.** Mailing Address The street number and street name where mail and correspondence should be sent (P.O. Box is acceptable).
- C. City The city that applies to the mailing address given.
- **D.** County The county that applies to the mailing address given.
- E. State -The state that applies to the mailing address given.
- F. Zip Code -The zip code that applies to the mailing address given.
- **G.** Contact Person The name (first and last) of the contact person for the owner/operator (agency, company, etc.) listed above.
- H. Title The contact person's title.
- I. Phone Daytime telephone number of the owner/operator.

NOTICE OF INTENT INSTRUCTIONS WATER QUALITY ORDER NO. 2004-0008-DWQ

Section III – Receiving Water Information

- A. Provide a description of the types of waters of the United States that are usual treatment areas for potential vector control.
- 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
 - 3- Central Coast
 - 5- Central Valley (Sacramento, Fresno, Redding)
 - 7- Colorado River Basin
- 2- San Francisco Bay
- 4- Los Angeles6- Lahontan (South Lake Tahoe, Victorville)
- 8- Santa Ana

- 9- San Diego
- C. Enter the name of the receiving water that the conveyance empties into, or, if applicable, the name of the water body to which the pesticide is directly applied.

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.

<u>Section V – Vicinity Map and Fee</u>

- A. If you have included vicinity map(s) with your Form A submittal, check the YES; 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 your permit can be issued. 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 with your Form A submittal payment of the annual fee for a Category 3 discharge specified in Title 23, California Code of Regulations, section 2200(b)(9). Check the NO box if you have not included this payment. NOTE: Payment of this fee must be received before you can obtain coverage under this General Permit. You will be invoiced annually, and payment is required to continue coverage.

NOTICE OF INTENT INSTRUCTIONS WATER QUALITY ORDER NO. 2004-0008-DWQ

Section VI – Monitoring and Reporting Requirements

Check the appropriate box specifying the type of monitoring program you intend to use. Either you will implement an Individual Monitoring Plan or participate in a Regional Monitoring Plan. Check both boxes if you plan on utilizing both options.

Section VII - Certification

- A. **Printed Name** Please print your name legibly. This section should be filled out by the person responsible according to section B.1.a. of the Standard Provisions (Attachment C).
- B. Signature and Date Signature of person whose name is printed above, and the date signed.
- C. **Title** The title of the person signing the NOI.

NOTICE OF INTENT INSTRUCTIONS WATER QUALITY ORDER NO. 2004-0008-DWQ

STATE WATER RESOURCES CONTROL BOARD

Division of Water Quality P.O. Box 100 Sacramento, CA 95812-0100

Web Page: http://www.swrcb.ca.gov

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS

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

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 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

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

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

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

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

6

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

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

COLORADO RIVER BASIN REGION (7) 73-720 Fred Waring Dr., Ste. 100 Palm Desert, CA 92260 (760) 346-7491 FAX: (760) 341-6820 Web Page: http://www.swrcb.ca.gov/rwqcb7

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

SAN DIEGO REGION (9) 9174 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

ATTACHMENT B

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM FOR

WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE DISCHARGE OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR CONTROL (GENERAL PERMIT) GENERAL PERMIT NO. CAG990004

A. MONITORING PLANS: Individual and Regional

Each discharger seeking coverage under this General Permit shall submit a Monitoring Plan (Plan) for approval by the appropriate Regional Water Quality Control Board (Regional Board) and shall implement the Plan as approved. Plans shall achieve the following goals:

- 1. Document compliance with the requirements of this General Permit;
- 2. Support the development, implementation, and effectiveness evaluation of Best Management Practices (BMPs);
- 3. Demonstrate that, following completion of resource or pest management projects, the water quality of the receiving waters is equivalent to the pre-application state ;
- 4. Identify and characterize aquatic pesticide application projects (Projects) conducted by the discharger; and
- 5. Ensure that the Plan provides for monitoring of Projects that are representative of all pesticides and application methods used by the discharger.

BMPs include activities that eliminate or reduce the discharge of pollutants that minimize the areal extent and duration of impacts caused by the discharge of pollutants. BMPs also identify and implement non-toxic or less toxic alternatives.

Dischargers must comply with the requirements of this Plan either individually or by participating in a Regional Pesticide Monitoring Program (RPMP). Any discharger planning to comply through an RPMP must so indicate in Section VI of the Notice of Intent [(NOI, Attachment A].

Each discharger is responsible for submitting a Plan to the appropriate Regional Board(s) for approval. Regional Boards may waive the submittal requirement for dischargers that have an acceptable Plan on file for Water Quality Order No. 2001-12-DWQ. Upon waiving the submittal requirement, the Regional Board accepts the previous Plan as the required submittal for this Monitoring and Reporting Program. All Plans, whether individual or RPMP, must include monitoring of at least one representative project for each pesticide

MONITORING AND REPORTING PROGRAM WATER QUALITY ORDER NO. 2004-0008-DWQ

identified by the in Section IV. B. of the Notice of Intent. All dischargers that apply for the permit before July 1, 2004 shall submit their monitoring plans to the appropriate Regional Board by July 1, 2004; those dischargers that apply for the permit after July 1, 2004 shall submit their monitoring plans to the appropriate Regional Board with their NOI application.

All Plans shall incorporate the elements described below, except for vector control projects that use microbial larvicides, thin film larvicides, and methoprene. These aquatic pesticides may represent the non-toxic or less toxic pest control alternative with reduced or no threat to the environment. Furthermore, feasible specific quantitative test methods may not be available for these pesticides at label application concentrations. Dischargers of these pesticides should document the rationale for not including Plan elements where appropriate.

The following elements shall be included in each Plan, unless as described above:

- 1. Characterization of representative aquatic pesticide application projects, including: diversity of actual pesticide use, diversity in season, receiving water types (e.g., canals, creeks, sloughs, etc.), climate, differing rates of pesticide applications or concentrations, project size (area, water volume, and flow).
- 2. Visual assessment of existing or potential adverse impacts on beneficial uses caused by application of pesticides.
- 3. Water quality analyses (using test procedures specified in 40 Code of Federal Regulations (CFR) Part 136) for selected constituents and parameters to demonstrate that, following completion of resource or pest management projects, the water quality of the receiving waters is equivalent to the pre-application state. Analyses shall include the active ingredients in the pesticides applied and may include:
 - a. Other constituents that have been identified that may adversely impact beneficial uses of the receiving waters as a result of the Project;
 - b. Dissolved oxygen;
 - c. Temperature;
 - d. pH;
 - e. Turbidity;
 - f. Hardness and other water quality parameters that may influence pesticide persistence; and
 - g. Electrical conductivity.
- 4. A Quality Assurance Plan to provide references, standardized procedures, and quality specifications for the sampling, analysis, and data review procedures for the monitoring program.
- 5. An evaluation of any non-toxic or less-toxic pest control methods that may provide a practicable substitute for pesticide application. This evaluation shall include an estimate

MONITORING AND REPORTING PROGRAM WATER QUALITY ORDER NO. 2004-0008-DWQ

of each alternative's costs, a review of any known barriers to implementing the alternative, and any solutions to overcoming those barriers.

6. Evaluation of the effectiveness of representative BMPs to eliminate or reduce the discharge of pollutants and minimize the areal extent and duration of impacts caused by the discharge of pollutants.

B. AQUATIC PESTICIDE USE DOCUMENTATION

The discharger shall maintain records of the following information for each treatment site:

- 1. Date of application;
- 2. The location of the treatment area (e.g., address, crossroads, or map coordinates);
- 3. Application details including flow rate, surface water area, volume of water treated, aquatic pesticide(s) and adjuvants used, and volume or mass of each component discharged ;
- 4. The names of the water bodies treated (i.e., canal, creek, lake, etc.);
- 5. Name of applicator; and
- 6. Documentation of BMP activities in compliance with this General Permit.

Copies of these documentation records shall be submitted to the Regional Board in monthly Pesticide Use Reports due the 15th of the following month. Dischargers may use Pesticide Use Report forms (from the Department of Pesticide Regulation [DPR]) as part of the documentation.

C. REPORTING

All reports shall be submitted to the appropriate Regional Board Executive Officer. All reports submitted in response to this General Permit must comply with the provisions stated in "Standard Provisions and Reporting for Waste Discharge Requirements" (Attachment C), Section 1B, "Monitoring and Reporting Requirements," including the signatory requirements of Standard Provision B.2.

In addition to the monthly submittal of the Pesticide Use Reports, the discharger shall submit a calendar year Annual Report to the appropriate Regional Board Executive Officer by January 31 of the following year (beginning January 2005). The discharger may refer to Annual Reports prepared by applicable RPMPs. Copies of all reports prepared by RPMPs must be provided to the State Board and each Regional Board. The Annual Report shall contain tabular summaries of the pesticide monitoring data obtained during the previous year in a format that satisfies the requirements for inclusion in the DPRs surface water database. The Annual Report shall include a summary including, but not limited to (1) objectives of the monitoring program(s); (2) results; and (3) interpretation of data in relation to frequency, duration, and magnitude of impacts to beneficial uses.

MONITORING AND REPORTING PROGRAM WATER QUALITY ORDER NO. 2004-0008-DWQ

Sketches of sample locations, chain of custody forms, and other information developed as part of this monitoring program shall be maintained by the discharger and submitted to the Regional Board upon request.

ATTACHMENT C

STATE WATER RESOURCES CONTROL BOARD

STANDARD PROVISIONS AND REPORTING FOR WASTE DISCHARGE REQUIREMENTS

WATER QUALITY ORDER NO. 2004-0008-DWQ STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE DISCHARGES OF AQUATIC PESTICIDES TO SURFACE WATERS OF THE UNITED STATES FOR VECTOR CONTROL (GENERAL PERMIT) GENERAL PERMIT NO. CAG990004

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 federal Clean Water Act (CWA) 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 CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA 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 CWA 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 waters 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 CWA 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) 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 CWA 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 a 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 paragraphs (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(1)(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 (1) (7)

The discharger shall report all instances of noncompliance not reported under Standard Provisions (B.3), and (B.4), at the time monitoring reports are submitted.

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 this 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(1)(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 Grant 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 CWA provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the CWA 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 CWA 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 CWA. [40 CFR 122.41(a)(2)][CWC sections 13385 and 13387].

- 2. The CWA 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 CWA 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)].