State Water Resources Control Board 1001 I Street, Sacramento, California, 95814

(http://www.waterboards.ca.gov/)

WATER QUALITY ORDER 20XX-XXXX-DWQ NPDES NUMBER. CAG0000XX

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGES FROM PEST CONTROL APPLICATIONS TO WATERS OF THE UNITED STATES

The following Dischargers may apply for coverage under this Order in compliance with the waste discharge requirements set forth in this Order:

Dischargers

Dischargers of residual pesticides, non-pesticidal products and their degradation byproducts to waters of the United States for (1) aquatic weed and algae management, (2) mosquito and other flying insect vector control management, (3) aquatic animal invasive species management, (4) spray applications to agricultural lands, and (5) terrestrial rodent management.

This Order was adopted on Month, XX, 202X.

This Order shall become effective on Month, XX, 202X, 180 days after the Adoption Date of this General Order.

This Order shall expire on Month, XX, 20XX.

The United States Environmental Protection Agency (USEPA) and the State Water Resources Control Board have classified these discharges as **minor** discharges.

In accordance with Section B.2.4 of Attachment B (Standard Provisions), if this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 Code of Federal Regulation 122.6 and remain in full force and effect.

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1. INTRODUCTION

This General Permit provides regulatory coverage for the point source discharge of chemical and biological residual pesticides and other non-pesticidal products to waters of the United States for the following pest control use patterns:

Aquatic Weed and Algae Management for invasive or nuisance aquatic vegetation and plant pathogens such as fungi or bacteria found in waters and at water's edge. It also includes algal control of filamentous algae, cyanobacteria (blue-green algae), and other algal species that have the potential to affect human or environmental health.

Mosquito and Other Flying Insect Vector Control Management for flying insect pests that breed or live in, over, or near standing or flowing water. Public health, nuisance and other flying insect vectors in this category include but are not limited to mosquitoes, black flies, and midges.

Aquatic Animal Invasive Species Management for invasive aquatic animal species. Invasive species refer to species that establish and reproduce rapidly in a waterbody outside of their native range and may threaten the diversity or abundance of native species through competition for resources, predation, parasitism, hybridization with native populations, introduction of pathogens, or physical or chemical alteration of the invaded habitat. Invasive aquatic animal pests in this category include but are not limited to mollusks, lampreys, Chinese mitten crabs, and European green crabs.

Agricultural Pest Management for injurious insect or animal pests, plant diseases, and noxious weeds present on agricultural lands where the application of a pesticide or non-pesticidal product will unavoidably be applied over and deposited to a water of the United States.

Terrestrial Rodent Management for terrestrial rodent pests where the aerial application of a rodenticide will unavoidably be applied over and deposited to a water of the United States.

Pesticide product formulations are used as control mechanisms in eradicating aquatic pests and may include active ingredients and inert ingredients. Active ingredients are ingredients disclosed by the registrant that yield toxic effects on target organisms. Inert ingredients are substances, often trade secrets, that are included in pesticide product formulations. Inert ingredients must be approved for use by the USEPA but are not required to be disclosed on product labels by the registrant. As part of the registration process of pesticide products for use in California, the USEPA and the California Department of Pesticide Regulation evaluate data submitted by registrants to ensure that a product used per the label instructions will not cause harm or adverse impact on non-target organisms that cannot be mitigated with protective measures or use restrictions. Adjuvants may also be mixed with pesticide products during pesticide applications. Adjuvants are considered pesticides in California per California Food and Agricultural Code Section

12753(a). Surfactants are a subcategory of adjuvants that facilitate the dispersing, emulsifying, absorbing, spreading, wetting, or other surface modifying properties of pesticide products.

Non-pesticidal products manage and prevent the spread of aquatic pests and are not registered as pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act. Non-pesticidal products include phosphorus sequestration products containing aluminum or lanthanum-modified clays, non-pesticidal marker dyes, and ozone. When used in accordance with the product label and the conditions set forth in this General Permit, non-pesticidal products can act as mitigation strategies that prevent and control invasive or nuisance aquatic pests. This General Permit also provides temporary coverage for the discharge of non-pesticidal products with active ingredients not listed in this General Permit for the purpose of testing efficacy.

The Federal Insecticide, Fungicide, and Rodenticide Act governs the registration, distribution, sale, and use of pesticides in the United States. The Clean Water Act Section 301(a) broadly prohibits the discharge of any pollutant to waters of the United States except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Chemical and biological residual pesticides and other non-pesticidal products discharged into waters of the United States constitute pollutants within the meaning of the Clean Water Act, even if the purpose of the discharge is restoring water quality. Therefore, coverage under an NPDES permit is required.

2. Regulatory Coverage and Application Requirements

2.1. Regulatory Coverage

This General Permit covers the point source discharge of residual pesticides and non-pesticidal products to waters of the United States resulting from (1) aquatic weed and algae management, (2) mosquito and other flying insect vector control management, (3) aquatic animal invasive species management, (4) agricultural pest management, and (5) terrestrial rodent management.

This General Permit allows for the discharge of pesticide products and non-pesticidal products containing the active ingredients listed in Section 2.3 (Pesticidal Active Ingredients Covered) and Section 2.4 (Non-pesticidal Products Covered) of this General Permit. Except as specified within Section 2.6.2 (Second-Generation Anticoagulant Rodenticides) of this General Permit, regulatory coverage for residual pesticide discharges is provided for only those pesticide products that are currently approved for use by the California Department of Pesticide Regulation.

The discharges of residual pesticides into waters of the United States within the jurisdiction of the Lahontan Regional Water Board and North Coast Regional Water Quality Control Board must have an exception to those Regions basin plan aquatic pesticides prohibitions, in addition to being covered under this General Permit.

This General Permit does not cover agricultural stormwater discharges or return flows from irrigated agriculture as these discharges are not considered as point source discharges under the Clean Water Act. Additionally, this General Permit does

not cover other indirect or nonpoint source discharges from applications of pesticides and non-pesticidal products. Discharges from pesticide applications on federally recognized tribal lands are regulated by a federal permit issued by the USEPA.

2.2. Discharger Eligibility

A Discharger is any entity who proposes to apply pesticides or non-pesticidal products resulting from the pest control use patterns identified in Section 1 (Introduction) of this General Permit and who meets either of the following eligibility criteria:

- 1. The entity has control over the financing to perform pesticide or non-pesticidal product applications; or
- The entity has day-to-day managerial control of pesticide or non-pesticidal product applications or performs pest control activities in compliance with this General Permit.

2.3. Pesticidal Active Ingredients Covered

The following active ingredients are covered for each pest control use pattern:

Aquatic Weed and Algae Management

- 2.4-D
- Acrolein
- Blue 9
- Calcium hypochlorite
- Copper
- Diquat
- Endothall
- Florpyrauxifen-benzyl
- Flumioxazin
- Fluridone
- Glyphosate
- Hydrogen peroxide
- Imazamox
- Imazapyr
- Penoxsulam
- Peroxyacetic acid
- Sodium carbonate peroxyhydrate
- Sodium hypochlorite
- Triclopyr
- Yellow 23

Mosquito and Other Flying Insect Vector Control Management

Larvicides containing:

- Monomolecular films
- Methoprene
- Bacillus thuringiensis subspecies isralensis (Bti)
- Bacillus sphaericus (B. Sphaericus)
- Temephos
- Petroleum distillates
- Pyriproxyfen
- Spinosad

Adulticides containing:

- Abamectin
- Malathion
- Naled
- Pyrethrin
- Deltamethrin
- Etofenprox
- Fenpropathrin
- Lambda-cyhalothrin
- Permethrin
- Prallethrin
- Resmethrin
- Sumithrin
- Piperonyl butoxide (PBO)
- N-octyl bicycloheptene dicarboximide (MGK-264)

Aquatic Animal Invasive Species Management

- Copper
- Sodium hypochlorite
- Pseudomonas fluorescens strain CL145A cells and spent fermentation media (Pf CL145A-S)

Agricultural Pest Management

- Acetamiprid
- Aminopyralid
- Bacillus thuringiensis kurstaki (Btk)
- Carbaryl
- Chlorsulfuron
- Clopyralid
- Cyfluthrin
- Dinotefuran
- Glyphosate
- Imazapyr

- Imidacloprid
- Malathion
- Naled
- Nuclear polyhedrosis virus
- Light Brown Apple Moth (LBAM) and Grapevine Moth (EGVM) Pheromone blends
- Pyrethrins
- Spinosyn A and D
- Triclopyr butoxyethyl ester
- Triclopyr

Terrestrial Rodent Management

 Brodifacoum, in accordance with any of the exemptions provided in Section 2.6.2 (Second-Generation Anticoagulant Rodenticides) of this General Permit

2.4. Non-pesticidal Products Covered

This General Permit also regulates non-pesticidal products for each of the following pest control use patterns:

2.4.1. Aquatic Weed and Algae Management

2.4.1.1. Phosphorus Sequestration Products

Alum

Alum describes the class of chemicals used to inactivate soluble, reactive phosphorous that has aluminum as their active ingredient (such as aluminum sulfate, aluminum chlorohydrate, polyaluminum chloride, and sodium aluminate). Alum applications are typically used with a buffering agent to maintain a steady pH level in the waterbody.

Lanthanum-Modified Clays

Lanthanum-modified clays describe the class of clay products that bind and inactivate the free reactive phosphorus in the water matrix.

Calcium

Non-pesticidal calcium products are the class of products containing calcium hydroxide or calcium carbonate that can be used to bind and inactivate the free reactive phosphorus in the water matrix. Non-pesticidal calcium products inhibit aquatic weed and algal growth through alterations to the water chemistry of a waterbody (e.g. pH adjustment or nutrient sequestration).

2.4.1.2. Dyes

Non-pesticidal dyes, such as pond dyes, are food-grade, liquid colorants that reduce light penetration through the water column, thereby restricting photosynthesis and constraining plant and algal growth.

2.4.1.3. Ozone

Ozone is a disinfectant that chemically bonds with cyanotoxins and other compounds within a water body leading to the degradation of algae and cyanobacteria.

2.5. Adjuvants Covered

This General Permit allows for the discharge of adjuvants containing the active ingredient represented by the surrogate nonylphenol.

This General Permit also allows for the discharge of other adjuvants that are not represented by the surrogate nonylphenol so long as the adjuvant product meets all the following use criteria:

- 1. Approved for use by the California Department of Pesticide Regulation. If an adjuvant becomes unregistered, the Discharger is no longer allowed to use the previously registered adjuvant product.
- 2. Clearly designated for use in aquatic settings per the manufacturer's pesticide product label as approved by the California Department of Pesticide Regulation.
- 3. Approved for use by the State Water Board's Deputy Director of the Division of Water Quality after review of aquatic toxicity data submitted by the Discharger as part of the permit application. Applicable adjuvant Receiving Water Monitoring Triggers or monitoring and reporting requirements will be specified in the Notice of Applicability provided to the Discharger.

2.6. California Department of Pesticide Regulation Registration Exemptions

This General Permit covers pesticide products registered by the California Department of Pesticide Regulation except where the California Department of Pesticide Regulation has exempted the registration of pesticide products listed in Sections 2.6.1 (Minimum Risk Pesticides) and 2.6.2 (Second-Generation Anticoagulant Rodenticides).

2.6.1. Minimum Risk Pesticides

This General Permit covers the point source discharge of residual pesticides from the application of minimum risk pesticides resulting from the pest control activities identified in Section 1 (Introduction) of this General Permit. Pesticide products containing active ingredients listed in Code of Federal Regulations title 40, Section 152.25(f) are exempt from the registration requirements of the Federal Fungicide, Insecticide, and Rodenticide Act, alone or in combination with other substances, if all the criteria of Code of Federal Regulations title 40, Section 152.25 are met. This exemption also applies to inert ingredients listed in the most current list of inert ingredients approved for use in minimum risk pesticide products available through the USEPA website. Products are also exempt for registration in California by the California Department of Pesticide Regulation if a product meets the exemption requirements outlined in California Code of Regulations title 3, Section 6147.

2.6.2. Second-Generation Anticoagulant Rodenticides

Effective January 1, 2021, California Food and Agriculture Code Section 12978.7 regulates the use of second-generation anticoagulant rodenticide products containing the following active ingredients:

- Brodifacoum
- Bromadiolone
- Difenacoum
- Difethialone

Except as allowed under California Food and Agriculture Code Section 12978.7(f), the use of these products is prohibited until the California Department of Pesticide Regulation, in concurrence with the California Department of Fish and Wildlife, completes its second-generation anticoagulant rodenticide reevaluation and adopts any additional necessary use restrictions.

California Food and Agriculture Code Section 12978.7(f) allows second-generation anticoagulant rodenticides containing the active ingredients brodifacoum, bromadiolone, difenacoum, and difethialone to be used for the following situations:

- 1. Protection of public health when applications are conducted by any governmental agency employee who complies with Health and Safety Code Section 106925.
- 2. Protection of water supply infrastructure and facilities by any governmental agency employee.
- 3. Protection of public health when applications are conducted by a mosquito or vector control district.
- 4. Eradication of nonnative invasive species inhabiting or found to be present on offshore islands.
- 5. Control or eradication of an invasive rodent population for the protection of threatened or endangered species or their habitats as determined by the California Department of Fish and Wildlife.
- 6. Control of an actual or potential rodent infestation associated with a public health need, as determined by a supporting declaration from the State or local Public Health Officer. A public health need is defined as an urgent, non-routine event posing a significant risk to human health in which it is documented that other rodent control alternatives, including nonchemical alternatives, are inadequate to control rodent infestations.
- 7. Research related to the California Department of Pesticide Regulation's reevaluation of second-generation anticoagulant rodenticides.

This General Permit allows for the discharge of second-generation anticoagulant rodenticide products that are not approved by the California Department of Pesticide Regulation when applied by federal agencies on federal lands. Non-federal entities proposing to apply second-generation anticoagulant rodenticide

products that meet the exemption categories are required to use products approved by the California Department of Pesticide Regulation. Furthermore, non-federal entities must follow any use restrictions imposed by the California Department of Pesticide Regulation regarding the usage of second-generation anticoagulant rodenticides.

Second-generation anticoagulant rodenticides products must, at a minimum, be approved for use by the USEPA.

2.7. Temporary Coverage of Non-Pesticidal Products for Experimental Use

This General Permit allows for the temporary discharge of non-pesticidal products not listed in this General Permit to test the efficacy of alternative non-pesticidal strategies in controlling aquatic pests. The experimental use of non-pesticidal products shall not contain pesticidal active ingredients or adjuvants even if registered by the USEPA or the California Department of Pesticide Regulation.

To obtain regulatory coverage for the discharge of non-pesticidal products for experimental use, the Discharger shall submit the following:

- 1. Notice of Intent (NOI) as shown in Attachment E, signed in accordance with the signatory requirements of the Standard Provisions in Attachment B
- 2. An application fee
- 3. An Experimental Non-Pesticidal Product Use Plan using the template in Attachment G.

The State Water Board shall provide public notice of the Notice of Intent and Experimental Non-Pesticidal Product Use Plan pursuant to the Public Noticing requirements in Section 7.1 (Public Noticing Requirements) of this General Permit.

Following the close of public comment period, State Water Board staff will coordinate with the applicant to address any deficiencies identified within the experimental use application package. Once deficiencies (if any) have been addressed by the applicant, the Deputy Director will issue a Notice of Applicability.

Temporary permit coverage shall begin on the date of issuance of the Notice of Applicability and remains in effect for 120 days unless the Deputy Director issues a letter terminating coverage prior to the end of the 120-day coverage period. Upon termination, whether at the end of 120 days or before, the Discharger shall cease the discharge of the non-pesticidal product and submit a final summary report of the research within 60 days from the termination date. Discharges of non-pesticidal products for experimental use shall not be used in the same waterbody concurrently with pesticide applications.

If additional time is needed to complete the project, a Discharger shall provide an explanation justifying the need for additional time and submit an amended Notice of Intent requesting the extension of temporary coverage. An extension may not exceed 60 days and temporary coverage will not be extended more than once.

2.8. Requirements for Continuation of Existing Regulatory Coverage

Existing Dischargers with regulatory coverage under the previous Water Quality Orders (2016-0039-DWQ; 2013-0002-DWQ; 2016-0040-DWQ; and 2016-0041-DWQ, as respectively amended) may continue coverage under the previous applicable Order until the Effective Date of this General Permit. The previous applicable Orders will no longer provide regulatory coverage as of the Effective Date of this General Permit.

At least 90 days prior to the Effective Date of this General Permit, Dischargers with regulatory coverage under previous Orders shall submit a Notice of Intent (as outlined in Attachment E) and Application Plan per the requirements of Section 7.3 (Application Plan) of this General Permit. Such Dischargers will not be required to pay an application fee.

Existing Dischargers with coverage under the previous Orders who do not submit a new application package at least 90 days before the Effective Date of this General Permit will be administratively terminated. If such Dischargers then decide to obtain regulatory coverage under this General Permit, they shall do so following the requirements in Section 2.9 (Requirements for New Regulatory Coverage).

2.9. Requirements for New Regulatory Coverage

To obtain regulatory coverage under this General Permit, the Discharger shall submit a complete application package to the State Water Board at least 90 calendar days before the expected pest control application date except as set forth in Section 8 (Emergency Use Provisions).

2.9.1. Application Package Requirements

The Discharger shall submit the complete application package electronically via the California Integrated Water Quality System (CIWQS) database. A complete application package includes:

- 1. An electronic Notice of Intent (NOI) as previewed in Attachment E, signed in accordance with the signatory requirements of the Standard Provisions in Attachment B. This form will be completed electronically, but will also need to be printed, signed, and mailed according to the instructions in the form.
- 2. An application fee
- 3. An Application Plan

In the Notice of Intent, a Discharger shall specify if one or more discharge types apply:

- (1) Mosquito and Other Flying Insect Vector Control Management
- (2) Aquatic Weed and Algae Management
- (3) Agricultural Pest Management
- (4) Aquatic Animal Invasive Species Management

- (5) Terrestrial Rodent Management
- (6) Emergency Pest Management
- (7) Temporary Coverage for Discharge of Non-Pesticidal Products for Experimental Use

A Discharger proposing to apply pesticides or non-pesticidal products in multiple Regional Water Board jurisdictions can submit one Notice of Intent, one Application Plan, and one application fee to the State Water Board. In the Notice of Intent, the Discharger shall indicate all applicable Regional Water Boards where pest control applications are planned. The Discharger shall address all required elements of the Application Plan for all areas in the state where discharges are proposed. If the Discharger performs pest control activities for more than one pest control use pattern, the Discharger shall submit one Notice of Intent, details for each pest control use pattern in one Application Plan, and one application fee.

2.9.2. State Implementation Policy and Ocean Plan Exception Requests

Dischargers may request an exception from meeting receiving water standards for pesticide active ingredients that are priority pollutants in accordance with Section 5.3 of the State Water Board Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy). Furthermore, Dischargers may request an exception from meeting Water Quality Control Plan to Ocean Waters of California (Ocean Plan) requirements per Section J of the Ocean Plan. The State Water Board Executive Director, Deputy Director or their designees may reopen and amend this permit to approve a Discharger's request for obtaining a State Implementation Policy or Ocean Plan exception. Proposed amendments to this General Permit shall be publicly noticed and posted for 30-day public comment. Approved State Implementation Policy or Ocean Plan exception requests will be listed within Attachment H of this General Permit.

2.9.3. Fees

The fee for enrollment under this General Permit will be dependent on the pest control use pattern the Discharger is proposing to target.

For Dischargers proposing to discharge pesticides or non-pesticidal products for vector control for mosquitoes and other flying insects, the fee shall be based on <u>California Code of Regulations</u>, title 23, <u>Section 2200(b)(5)</u> and is payable to the State Water Board.

For Dischargers proposing to discharge pesticides or non-pesticidal products for aquatic weed and algae management, aquatic animal invasive species management, agricultural pest management, or terrestrial rodent management, the fee shall be based on California Code of Regulations, title 23, Section 2200(b)(10) Category 3 and is payable to the State Water Board. The Discharger shall pay the fee annually.

For Dischargers proposing to discharge pesticides or non-pesticidal products for more than one pest control use pattern, the applicant shall submit a combined fee based on the appropriate section of the Fee Schedule in the California Code of Regulations. The Discharger shall pay the fee annually.

2.9.4. Approval of Application Packages

Regulatory coverage under this General Permit shall become effective when the following occur:

- 1. The Discharger has submitted a complete application package (Notice of Intent, Application Plan, and appropriate application fee).
- 2. The Application Plan has been posted on the State Water Board's website for a 14-day comment period.
- 3. The Deputy Director or their designee has issued a Notice of Applicability. The Notice of Applicability will specify the pest control use pattern, the pesticide or non-pesticidal product active ingredients, applicable adjuvants, waterbodies being discharged into, and any Regional Water Board specific conditions and requirements not stated in this General Permit that are necessary to address region-specific water quality concerns. Any such region-specific conditions and requirements shall be enforceable.

The Discharger is authorized to discharge starting on the date the Notice of Applicability is issued.

2.9.5. Modifications to Approved Regulatory Coverage

The Discharger shall submit any major changes to the Notice of Intent or Application Plan to the Deputy Director or their designee for approval.

Examples of major changes include adding a pest control use pattern, using a different active ingredient or adjuvant other than what is specified in the Application Plan, discharging in waterbodies not previously covered under the existing Notice of Applicability, obtaining temporary coverage for the experimental use of non-pesticide products, or adding or deleting best management practices (BMPs).

Changes in monitoring locations are not considered a major change. However, the Discharger shall report changes to monitoring locations within the annual report.

2.10. Requirements for Termination of Regulatory Coverage

The Discharger shall submit a complete and accurate Notice of Termination provided in Attachment F to terminate permit coverage. The Discharger's authorization to discharge under this General Permit terminates on the day a termination of coverage letter is issued by the Deputy Director. The Discharger remains responsible to submit any outstanding fees, and reports, where applicable, prior to the issuance of the termination letter.

A Discharger shall submit a Notice of Termination when one of the following conditions occurs:

- 1. A change of responsibility has taken place over the pest control activities covered under an existing Notice of Applicability.
- 2. The Discharger has ceased all discharges from the application of pesticides or non-pesticidal products for which it obtained General Permit coverage.
- The Discharger has obtained coverage under an individual permit or an alternative general permit for all discharges required to be covered by an NPDES permit.

2.11. Exclusion to Regulatory Coverage

The Deputy Director of Water Quality or their designee may issue a Notice of Exclusion, which revokes or denies an application for coverage under this General Permit for the following reasons:

- The discharger submits incomplete, inaccurate, or false information in the Notice of Intent or other supporting application documents.
- The discharger has a history of Clean Water Act violations.
- The discharge poses significant risk to water quality or public health and regulatory coverage is best suited through an individual permit or an alternative general NPDES permit.
- The discharge is to a waterbody that is listed as impaired for the pesticidal active ingredient or non-pesticidal product and regulatory coverage under this General Permit would be insufficient to protect water quality standards.

3. FINDINGS

The State Water Resources Control Board finds:

3.1. Federal and State Regulatory Authority

This General Permit serves as statewide Waste Discharge Requirements pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Permit is also issued pursuant to the federal Clean Water Act Section 402 and implementing regulations adopted by the USEPA and California Water Code chapter 5.5, division 7 (commencing with § 13370). This Permit shall serve as an NPDES permit for residual pesticides and non-pesticidal product discharges, as described herein, to waters of the United States.

The Code of Federal Regulations title 40, Section 122.28 authorizes the USEPA and approved states to issue general permits to regulate a point source category if the sources:

- 1. Involve the same or substantially similar types of operations.
- 2. Discharge the same type of waste.

- 3. Require the same type of effluent limitations or operating conditions.
- 4. Require similar monitoring.
- 5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, the USEPA granted the State of California, through the State Water Board and Regional Water Boards, the authority to issue NPDES permits pursuant to Code of Federal Regulations title 40, parts 122 and 123.

3.2. Background and Rationale for Requirements

The State Water Resources Control Board developed the requirements in this General Permit based on information from the monitoring and reporting programs contained in Water Quality Orders 2013-0002-DWQ, 2016-0039-DWQ, 2016-0040-DWQ, and 2016-0041-DWQ, as amended, and other available information. The Fact Sheet (Attachment D), which contains background information and the rationale for the requirements in this Permit, is hereby incorporated into and constitute Findings for this Permit.

3.3. Authorization to Amend Permit for New Active Ingredients and Regulatory Exceptions

This General Permit covers the application of pesticides and non-pesticidal products that are directly applied to a receiving water or may indirectly enter a receiving water. This General Permit regulates the specific active ingredients that are components of the various pesticide products that are currently registered or exempted as outlined in Section 2.3 (Pesticidal Active Ingredients Covered), by the California Department of Pesticide Regulation for aquatic weed and algae, mosquito and other flying insect vectors, aquatic animal invasive species, agricultural pest, and terrestrial rodent management. When the Department registers a pesticide product with a new active ingredient for pest control applications as covered under this Permit, upon requests by a Discharger, this Permit may be reopened and amended to add the new active ingredient and its receiving water limitations or receiving water monitoring trigger to the Permit before the Discharger may begin using the new active ingredient-based product. This Permit may also be reopened and amended to allow the Discharger to obtain an exception from meeting receiving water limitations for a specific priority pollutant in accordance with State Implementation Policy Section 5.3. when discharging to an enclosed bay, estuary or inland freshwaters, Furthermore, this Permit may be reopened and amended to allow, at the request of a Discharger, to obtain an Ocean Plan exception to not meet a specific Ocean Plan requirement (e.g. pollutant specific objective or discharge prohibition) when discharging into the Pacific Ocean.

Reopening and amending this General Permit on a case-by-case basis is resource intensive for the State Water Board. Thus, the State Water Board delegates amending this Permit to the Executive Director or the Deputy Director or their designee to add:

- 1. New active ingredients that have been registered or exempted as outlined in Section 2.3 (Pesticidal Active Ingredients Covered), by the California Department of Pesticide Regulation along with their receiving water monitoring triggers; and
- 2. Dischargers to the State Implementation Policy or California Ocean Plan exception list (Attachment H).

Proposed amendments to this General Permit shall be publicly noticed prior to approval by the State Water Board Executive Director or the Deputy Director or their designee.

3.4. Consideration of Public Comment

The State Water Board has notified the dischargers and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided an opportunity to submit written comments and recommendations. Attachment D (Fact Sheet) Section XXXX provides details regarding the notification.

[This section is intentionally left blank.]

THEREFORE, IT IS HEREBY ORDERED, that this permit supersedes Water Quality Orders 2013-0002-DWQ, 2016-0039-DWQ, 2016-0040-DWQ, and 2016-0041-DWQ except for enforcement purposes, and in order to meet the provisions contained in Division 7 of the California Water Code (commencing with Section 13000) and regulation adopted thereunder, and the provisions contained in the federal Clean Water Act and the regulations and guidelines adopted thereunder, the Dischargers shall comply with the requirement set forth in this General Permit.

4. Discharge Prohibitions

This General Permit prohibits the following discharges:

- The discharge of a residual pesticide or non-pesticidal product at a location or in a manner different from that described in this General Permit and the Notice of Applicability.
- The discharge of residual pesticides from products that are based on active ingredients not listed in this General Permit is prohibited. Additionally, the discharge of residual pesticides from products that do not have current California Department of Pesticide Regulation registration is prohibited, unless otherwise specified.
- 3. Discharges of residual pesticides to waters of the United States within the jurisdiction of the Lahontan Regional Water Quality Control Board are subject to the Lahontan Regional Water Quality Control Board Basin Plan pesticide discharge prohibition. Dischargers must request a prohibition exception from the Lahontan Regional Water Quality Control Board and receive approval of the request prior to the residual pesticide discharge.

4. All discharges of residual pesticides into waters of the United States within the jurisdiction of the North Coast Regional Water Quality Control Board are subject to the North Coast Regional Water Quality Control Board Basin Plan point source prohibition. Dischargers must request a prohibition exception from the North Coast Regional Water Quality Control Board and receive approval of the request that determines that the discharge would constitute a low threat discharge.

5. Effluent Limitations

- 1. The discharge of residual pesticides and non-pesticidal products must meet applicable water quality standards.
- Dischargers shall implement Best Management Practices when applying
 pesticides and non-pesticidal products. The Best Management Practices must be
 provided in the Application Plan as described in Section 7.3 (Application Plan) of
 this General Permit.

6. Receiving Water Monitoring Triggers

The Receiving Water Monitoring Triggers shall be used to assess if the discharge of residual pesticides or non-pesticidal products has the reasonable potential to cause or contribute to an excursion of a water quality standard, including numeric and narrative objectives within a standard. Exceeding the receiving water monitoring trigger does not constitute a violation of this General Permit so long as the Discharger performs the following actions:

- 1. Initiates additional investigations into the cause of the exceedance per Section 14.1 (Additional Investigations for Receiving Water Monitoring Trigger Exceedances).
- Implements additional Best Management Practices to reduce the residual pesticide or non-pesticidal product concentration below the monitoring triggers in future applications.
- 3. Evaluates the appropriateness of using alternative products.

Receiving Water Monitoring Triggers are documented in Tables 1-5, below, and, in the case of a Discharger that is proposing to use an adjuvant product not represented by the surrogate nonylphenol, the triggers shall be documented in the Notice of Applicability issued by the Deputy Director.

Table 1. Receiving Water Monitoring Triggers for Aquatic Weed and Algae Management

Chemical Abstracts Service (CAS) Number	Active Ingredient	Instantaneous Maximum Monitoring Trigger	Unit	Basis	
94757	2, 4-D	70	μg/L	USEPA Maximum Contaminant Level	
107028	Acrolein	320	μg/L	USEPA Water Quality Criteria, 1986	
		(See Footnote 1)		•	
107028	Acrolein	21	μg/L	USEPA Water Quality Criteria, 1986	
107020	Acrolein	(See Footnote 2)	µg/L	OOLI A Water Quality Chiena, 1900	
107028	Acrolein	780	ua/l	USEPA Water Quality Criteria, 1986	
107020	Acrolein	(See Footnote 3)	µg/L	OSEFA Water Quality Officia, 1900	
7782505	Chlorine	20	ua/l	USEPA National Recommended	
1102303	Cilionine	(See Footnote 4)	μg/L	Ambient Water Quality Criteria	
7782505	Chlorino	10	ua/l	California Ocean Plan	
7762303	Chlorine	(See Footnote 5)	μg/L	Calliornia Ocean Pian	

¹ Applies to waterbodies designated with the Municipal and Domestic Supply (MUN) beneficial use. Reference Regional Water Boards' Water Quality Control Plans (Basin Plans) for beneficial use definitions.

² Applies to waterbodies designated with the Warm (WARM) or Cold (COLD) Freshwater Habitat beneficial use. Reference Regional Water Boards' Basin Plans beneficial use definitions.

³ Applies to waterbodies designated for beneficial uses other than MUN, WARM, or COLD. Reference Regional Water Boards' Basin Plans for beneficial use definitions.

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7440508	Copper	0.960exp {0.8545 [ln(hardness)] – 1.702} (See Footnote 4)	μg/L	California Toxics Rule
7440508	Copper	3.1 (See Footnote 5)	µg/L	California Toxics Rule
Not Applicable	Dissolved Oxygen	See Footnote 6	mg/L	Regional Water Boards' Basin Plans
85007	Diquat	20	μg/L	USEPA Maximum Contaminant Level
145733	Endothall	100	μg/L	USEPA Maximum Contaminant Level
1390661729	Florpyrauxifen- benzyl	40.3	μg/L	USEPA Environmental Fate and Ecological Risk Assessment for the Registration of the New Herbicide for the Use on Rice and Aquatics: Florpyrauxifen-benzyl, 2017
103361097	Flumioxazin	0.023	mg/L	USEPA Ecotoxicity Database
59756604	Fluridone	560	µg/L	United States Environmental Integrated Risk Information System
1071836	Glyphosate	700	μg/L	USEPA Maximum Contaminant Level
81334341	lmazapyr	0.091	mg/L	USEPA Ecotoxicity Database
84852153	Nonylphenol	6.6	μg/L	USEPA National Recommended Ambient Water Quality Criteria

⁴ Applies to freshwater sources with a salinity equal to or less than 1 part per thousand 95% or more of the time.

⁵ Applies to saltwater sources with a salinity equal to or greater than 10 parts per thousand 95% or more of the time.

⁶ Reference the dissolved oxygen water quality objective in the Regional Water Boards' Basin Plans.

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84852153	Nonylphenol	1.7	μg/L	USEPA National Recommended Ambient Water Quality Criteria
Not Applicable	Temperature	Increase of more than 5°F from ambient temperature	°F	Regional Water Boards' Basin Plans
1048373858	Triclopyr Choline	11.7	mg/L	USEPA Draft Ecological Risk Assessment for the Registration Review of Triclopyr Acid, Triclopyr Choline, Triclopyr TEA, and Triclopyr BEE
57213691	Triclopyr Triethylamine	9.1	mg/L	USEPA Ecotoxicity Database

Table 2. Receiving Water Monitoring Triggers for Mosquito and Other Flying Insect Vector Control Management

Chemical Abstracts Service (CAS) Number	Active Ingredient	Instantaneous Maximum Monitoring Trigger	Unit	Basis		
71751412	Abamectin	0.024	μg/L	USEPA Ecotoxicity Database		
52918635	52918635 Deltamethrin		μg/L	USEPA Ecotoxicity Database		
Not Applicable	Not Applicable Dissolved Oxygen		mg/L	Regional Water Boards' Basin Plans		
80844071	Etofenprox	0.0019	μg/L	USEPA Ecotoxicity Database		
39515418	Fenpropathrin	0.025	μg/L	USEPA Ecotoxicity Database		
91465086	Lambda-Cyhalothrin	0.00049	μg/L	USEPA Ecotoxicity Database		
121755	Malathion	0.1	μg/L	USEPA National Recommended Ambient Water Quality Criteria		
113484	MGK-264	16.9	μg/L	USEPA Ecotoxicity Database		
300765	Naled	0.014	μg/L	USEPA Ecotoxicity Database		

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¹ Reference the dissolved oxygen water quality objective in the Regional Water Boards' Basin Plans.

Not Applicable	PBO (in PBO/ Pyrethrin Mixture)	0.014	μg/L	USEPA Ecotoxicity Database
Not Applicable	PBO (in PBO/Resmethrin Mixture)	0.082	μg/L	USEPA Ecotoxicity Database
52645531	Permethrin	0.0005	μg/L	USEPA Ecotoxicity Database
51036	Piperonyl Butoxide (PBO)	33	μg/L	USEPA Ecotoxicity Database
23031369	Prallethrin	0.39	μg/L	USEPA Ecotoxicity Database
8003347	Pyrethrin	0.0005	μg/L	USEPA Ecotoxicity Database
95737681	Pyriproxyfen	6.5	μg/L	USEPA Ecotoxicity Database
10453868	Resmethrin	0.028	μg/L	USEPA Ecotoxicity Database
26002802	Sumithrin (Phenothrin)	0.0025	μg/L	USEPA Ecotoxicity Database
3383968	Temephos	8	μg/L	USEPA Ecotoxicity Database
Not Applicable	Temperature	Increase of more than 5°F from ambient temperature	°F	Regional Water Boards' Basin Plans

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Table 3. Receiving Water Monitoring Triggers for Agricultural Pest Management

Chemical Abstracts Service (CAS) Number	Active Ingredient	Instantaneous Maximum Monitoring Trigger	Unit	Basis
135410207	Acetamiprid	0.41	μg/L	USEPA <i>Ecotoxicity Database</i>
63252	Carbaryl	0.085	μg/L	USEPA <i>Ecotoxicity Database</i>
1702176	Clopyralid	2874	μg/L	USEPA <i>Ecotoxicity Database</i>
68359375	Cyfluthrin	0.000018	μg/L	USEPA Ecotoxicity Database
165252700	Dinotefuran	5.78	μg/L	USEPA Ecotoxicity Database
Not Applicable	Dissolved Oxygen	See Footnote 1	mg/L	Regional Water Boards' Basin Plans
1071836	Glyphosate	700	μg/L	USEPA Maximum Contaminant Level
138261413	Imidacloprid	0.207	μg/L	USEPA Ecotoxicity Database
121755	121755 Malathion		μg/L	USEPA National Recommended Ambient Water Quality Criteria

¹ Reference the dissolved oxygen water quality objective in the Regional Water Boards' Basin Plans.

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300765	Naled	0.014	μg/L	USEPA Ecotoxicity Database
8003347	Pyrethrin	0.0005	μg/L	USEPA <i>Ecotoxicity Database</i>
Not Applicable	Temperature	Increase of more than 5°F from ambient temperature	°F	Regional Water Boards' Basin Plans
64700567	Triclopyr Butoxyethyl Ester	24	μg/L	USEPA <i>Ecotoxicity Database</i>

Table 4. Receiving Water Monitoring Triggers for Aquatic Animal Invasive Species Management

Chemical Abstracts Service (CAS) Number	Active Ingredient	Instantaneous Maximum Monitoring Trigger	Unit	Basis
7782505	Chlorine	20 (See Footnote 1)	μg/L	USEPA National Recommended Ambient Water Quality Criteria
7782505	Chlorine	10 (See Footnote 2)	μg/L	California Ocean Plan
7440508	Copper	0.960exp {0.8545 [ln(hardness)] – 1.702} (See Footnote 1)	μg/L	California Toxics Rule
7440508	Copper	3.1 (See Footnote 2)	μg/L	California Toxics Rule
Not Applicable	Dissolved Oxygen	See Footnote 3	mg/L	Regional Water Boards' Basin Plans
Not Applicable	Pf CL145A-S	6 mg of Active Ingredient/Liter	mg/L	1/10 th of the Lowest LC50 96-hr LC50 = 59.09 for Oncorhynchus mykiss (rainbow trout)

¹ Applies to freshwater sources with a salinity equal to or less than 1 part per thousand 95% or more of the time.

² Applies to saltwater sources with a salinity equal to or greater than 10 parts per thousand 95% or more of the time.

³ Reference the dissolved oxygen water quality objective in the Regional Water Boards' Basin Plans.

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Not Applicable	Temperature	Increase of more than 5°F from ambient temperature	°F	Regional Water Boards' Basin Plans
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Table 5. Receiving Water Monitoring Triggers for Terrestrial Rodent Management

Chemical Abstracts Service (CAS) Number	Active Ingredient	Instantaneous Maximum Monitoring Trigger	Unit	Basis
56073100	Brodifacoum	2	μg/L	USEPA <i>Ecotoxicity Database</i>
Not Applicable	Dissolved Oxygen	<u>See Footnote</u> 1	mg/L	Regional Water Boards' Basin Plans
Not Applicable	Temperature	Increase of more than 5°F from ambient temperature	°F	Regional Water Boards' Basin Plans

¹ Reference the dissolved oxygen water quality objective in the Regional Water Boards' Basin Plans.

7. Pest Control Use Requirements

7.1. Public Noticing Requirements

The Discharger shall notify potentially affected governmental agencies and the public every calendar year, at least 14 calendar days prior to the first pest control application of the year. The Discharger shall post the notification on their website if available. The notification shall include the following information:

- 1. A statement of the Discharger's intent to apply pesticide(s).
- 2. Name of pesticide(s) or non-pesticidal product(s).
- 3. Purpose of use.
- 4. General time frame and locations of expected use.
- 5. Any water use restrictions or precautions to be taken during treatment.
- 6. A phone number or email address that interested persons may use to obtain additional information from the Discharger.

7.2. Application Schedule

The Discharger shall provide a phone number or other specific contact information to persons who request the Discharger's application schedule and information. The Discharger shall provide the requester with the most current application schedule and information and inform the requester if the schedule or information is subject to change. Information may be made available by electronic means, including posting prominently on a well-known web page.

7.3. Application Plan

For all pest control use patterns, the Discharger shall develop an Application Plan that contains, at minimum, the following elements:

- 1. Description of the water bodies or waterbody systems in which aquatic pesticides and non-pesticidal products are being planned for application.
- 2. Description and map of the application area and the target area in the system that is being planned for pest control.
- 3. Description of the type of pest species being controlled.
- 4. Names of the pesticide and non-pesticidal products, their active ingredients, and any known degradation byproducts.
- 5. The method in which pesticide and non-pesticidal products will be applied.
- 6. The product names and active ingredients of any adjuvants and/or buffering agents that may be used. Dischargers should also attach a copy of the Manufacturer Safety Data Sheet for proposed adjuvants and buffering agents.
- 7. The proposed amount of estimated pesticide or non-pesticidal product that is needed and an explanation of how this amount was determined.

- 8. If the Discharger requires a short-term or seasonal exception under Section 5.3 of the State Water Board Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (State Implementation Policy) from meeting priority pollutant receiving water limitations, the Discharger shall provide the beginning and ending dates of the exception period and justification for the needed time for the exception. If pesticide or non-pesticidal product applications are proposed for outside of the exception period, the Discharger shall describe plans to ensure that receiving water criteria are not exceeded because the Dischargers shall comply with the priority pollutant receiving water limitations for all applications that occur outside of the exception period.
- Description of the monitoring program that addresses how the required elements of the Monitoring and Reporting Program of this General Permit will be implemented.
- 10. Description of representative monitoring locations (as defined in Attachment A) and the justification for selecting these locations.
- 11. Description of the Best Management Practices to be implemented. The Best Management Practices shall include, at minimum:
 - a. Measures to prevent pesticide or non-pesticidal product spills.
 - b. Measures for pesticide or non-pesticidal product spill containment in a spill event.
 - c. Measures to ensure that only a minimum and consistent amount of pesticide or non-pesticidal product is used.
 - d. Measures to minimize water quality impacts from decaying aquatic vegetation resulting from the pest control activity. Measures may include the physical removal of treated biomass when site conditions allow and are appropriate.
 - e. Measures to prevent the discharge of pesticides and non-pesticide products from adversely impacting aquatic communities and populations, including vertebrates, invertebrates, and plant species, except for the target species being controlled.
 - f. Protocols to cease pesticide or non-pesticidal product applications during wind speeds greater than 15 miles per hour.
 - g. Protocols for storing and disposing unused pesticide or non-pesticide products.
 - h. A plan to educate the Discharger's staff and pest control applicators on any potential adverse effects to waters of the United States from the pesticide or non-pesticidal product application.
 - i. Specific Best Management Practices for each applicable spray mode used (e.g., aerial spray, truck spray, drone spray, hand spray).

- Specific Best Management Practices for each pesticide or non-pesticidal product.
- k. Specific Best Management Practices for each type of environmental setting (e.g., agricultural, urban, and wetland).
- 12. For each pest management area, the Discharger shall identify the pest problem. This includes descriptions of the following:
 - a. If applicable, action threshold(s), expressed in established pest population density, that trigger pest management strategy implementation.
 - Target pest species for which specific pest management strategies based on developmental and behavioral considerations for each species will be developed.
 - c. Known breeding or reproduction areas for source reduction, pest control program, and habitat management.
 - d. Existing surveillance data to identify new sources of pest problems as well as areas that have recurring pest problems.
- 13. Examination of alternatives to pesticide use including the least intrusive management options and most appropriate formulation of management options to control the pest. Such evaluations shall include the following management options in which the impact to water quality, non-target organisms, pest resistance, feasibility, and cost effectiveness, at minimum, are considered:
 - a. No action
 - b. Prevention
 - c. Mechanical or physical methods
 - d. Cultural methods
 - e. Biological control agents
 - f. Non-pesticidal products
 - g. Pesticides
- 14. If applicable, specify a website where public notices, as required in Section 7.1 (Public Noticing Requirements) of this General Permit, can be found.

The Discharger shall also include the following elements to the Application Plan that are specific for the following pest control use patterns:

A. Aquatic Weed and Algae Management

1. If applicable, a list of gates or control structures to be used to control the extent of receiving waters potentially affected by aquatic pesticide applications and a schedule for inspecting those control structures to ensure they are not leaking.

- Discussion of Best Management Practices for the planning and coordination of pesticide or non-pesticidal product applications with nearby farmers and agencies with water rights diversion so that the beneficial uses of the waterbody are not impacted during the treatment period.
- 3. For any phosphorus sequestration products proposed, a list of applicable buffering agents intended for use and calculations showing how the Discharger will determine the actual amount of phosphorus sequestration product that will be applied during treatment. For any assumptions made in the calculations, a description of why those assumptions were made and source of data used to make the assumptions shall also be provided.
- 4. Evaluation of source control strategies to limit external nutrient loadings (e.g., total phosphorus, total nitrogen) to waterbodies with invasive aquatic weed and algal growth.

B. Mosquito and Other Flying Insect Vector Management

- Discussion of whether the Discharger will be participating in a coalition to implement the Monitoring and Reporting Program pursuant to this General Permit.
- Off-Target Drift Management Plan that describes procedures used when applying
 pesticides or non-pesticidal products; procedures used when off-target drift is
 anticipated due to the nature of the application and environmental conditions;
 and procedures used when unanticipated off-target drift occurs.
- 3. If applicable, description of the buffer zone that will be used to prevent off-target spray.

C. Invasive Aquatic Animal Species Management

- 1. If applicable, a list of gates or control structures to be used to control the extent of receiving waters potentially affected by aquatic pesticide applications and a schedule for inspecting those control structures to ensure they are not leaking.
- Discussion of Best Management Practices for the planning and coordination of pesticide or non-pesticidal product applications with nearby farmers and agencies with water rights diversion so that the beneficial uses of the waterbody are not impacted during the treatment period.

D. Agricultural Pest Management

- Off-Target Drift Management Plan that describes procedures used when applying
 pesticides or non-pesticidal products; procedures used when off-target drift is
 anticipated due to the nature of the application and environmental conditions;
 and procedures used when unanticipated off-target drift occurs.
- If applicable, description of the buffer zone that will be used to prevent off-target spray.

E. Terrestrial Rodent Management

- 1. Considerations for a buffer zone when spraying pesticides or non-pesticidal products near water to prevent spray drifting out of the target area.
- 2. Procedures for eliminating or reducing the impacts of consumed or unconsumed pesticides.

Once permit coverage begins, the Discharger shall annually review and update the Application Plan, accordingly, prior to the first pest control application covered under this General Permit.

7.4. Pest Control Application Log

The Discharger shall maintain a log of each pest control application and submit a copy of the pest control application log within the annual report. The application log shall contain, at minimum, the following information:

- 1. Date of pest control application.
- 2. Location of the pest control application and target areas (e.g., address, crossroads, or map coordinates).
- 3. Name of the pest control applicator and if applying pesticides, the pest control applicator license number.
- 4. Identification of the water bodies treated or potentially affected (e.g., specific canal, creek, lake).
- 5. Details of the application including:
 - a. Start and stop dates of the application
 - b. Pesticide or non-pesticidal product application rate or concentration
 - c. Names of the pesticide or non-pesticide products as well as applicable adjuvants used by the Discharger. For pesticides, also include the USEPA registration number
 - d. Volume or mass of each pesticide or non-pesticide product applied
 - e. Flow rate and level of the water body in the target area
 - f. Wind speed and direction
- 6. Visual monitoring assessment for pest control applications or an explanation why visual monitoring was not performed (e.g., application in darkness, safety, area not accessible).
- 7. Certification that the pest control applicators followed the approved Application Plan on record.

8. Emergency Use Provisions

In the event of a pest-related emergency, as documented through a public declaration by a state or local government agency, emergency discharge of residual pesticides and non-pesticidal products for (1) aquatic weed and algae management, (2) mosquito and other flying insect vector pest management, (3) aquatic animal invasive species management, (4) agricultural pest management, and (5) terrestrial rodent management may be authorized through the streamlined process outlined below.

A Discharger who seeks emergency regulatory coverage under these Emergency Provisions shall follow the appropriate steps:

- 1. Complete, print, and sign the electronic Notice of Intent and submit it to the State Water Board (Division of Water Quality) for review.
- Complete an Emergency Application Plan that addresses elements 1-10 of the Application Plan as outlined in Section 7.3 (Application Plan) of this General Permit.

State Water Board staff will coordinate with Regional Water Board staff in reviewing the emergency application for completeness and eligibility. Following the submission of the Notice of Intent and Emergency Application Plan, State Water Board staff will post the emergency application package on to the State Water Board's website for a 5-business day public comment period. State Water Board staff will distribute a notice through the State Water Board's email notification list that an emergency application has been posted. If there are deficiencies noted during the public comment period, Water Board staff will coordinate with the Discharger to address the deficiencies. Once all deficiencies are addressed, if any, the Deputy Director will issue a Notice of Applicability. Permit coverage will begin based on the date of issuance of the Notice of Applicability. The Notice of Applicability will remain in effect for 90 days; regulatory coverage will terminate thereafter. No application fee is required for discharges related to a publicly declared, pest-related emergency.

To continue regulatory coverage after the 90-day expiration date, the Discharger must submit a new, complete application package (Notice of Intent, Application Plan, and application fee) pursuant to Section 2.9 (Requirements for New Regulatory Coverage) of this General Permit. The application package will be posted, notified for public comment, and approved pursuant to Section 2.9.4 (Approval of Application Package) of this General Permit. Dischargers shall not continue discharges to waters of the United States without a valid Notice of Applicability issued under this General Permit.

9. Monitoring and Reporting Program Requirements

All Dischargers authorized to discharge under this General Permit shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment C of this General Permit, and as specified in each Discharger's Notice of Applicability from the Deputy Director of the Division of Water Quality.

Additionally, the Deputy Director of the Division of Water Quality or their designee may approve reductions in monitoring frequencies as specified under Section 3.5 (Criteria for Reduced Monitoring Requirements) of Attachment C (Monitoring and Reporting Program) of this General Permit if the Discharger makes a request and the request is supported by the monitoring data submitted.

10. Provisions

10.1. Standard Provisions

All Dischargers authorized to discharge under this General Permit shall comply with the Federal Standard Provisions in Attachment B of this General Permit.

10.2. Special Provisions

- 1. 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, habitats of species listed under federal or state endangered species laws. To ensure that endangered species issues are raised to the responsible agencies, the State Water Board has notified the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Wildlife of the issuance of this General Permit.
- 2. This General Permit does not authorize the use of rotenone for invasive fish species control. Such a control program requires site-specific information and additional limitations required by Regional Water Board Basin Plans that cannot be included in this General Permit.
- 3. The Discharger shall follow all Federal Insecticide, Fungicide, and Rodenticide Act pesticide label instructions and any Use Permits issued by a county agricultural commissioner.
- 4. The Discharger shall comply with the Cooperative Agreement issued by the California Department of Public Health to apply pesticides for the protection of public health.
- 5. The pesticide applicator, in a pesticide application covered under this General Permit, must be licensed by the California Department of Pesticide Regulation if such licensing is required for the pesticide application project.
- 6. All adjuvants used must be labeled for aquatic use.
- 7. The Discharger shall maintain a copy of this General Permit and have it readily available to operating personnel. Operating personnel shall be familiar with its content.
- 8. The Discharger must identify the Environmental Laboratory Accreditation Program laboratories that performed sample analyses in all monitoring reports submitted to the State and Regional Water Boards.

9. The Discharger shall ensure that all monitoring and analysis instruments and devices used to fulfill the prescribed monitoring program shall be properly maintained and calibrated, at least yearly or based on the manufacturer's recommendations, to ensure their continued accuracy.

11. Adverse or Toxic Effect Incident Notification Requirements

11.1. Twenty-Four Hour Notification Requirements

Within 24 hours of the Discharger becoming aware of an adverse or toxic effect of a pesticide's or non-pesticide product's use, the Discharger shall report via email to the State Water Board and the appropriate Regional Water Board the following information:

- 1. Point of contact name.
- Pest control applicator's name and Discharger's mailing address.
- Waste Discharge Identification (WDID) number as provided in the Notice of Applicability.
- 4. How and when the Discharger became aware of the adverse or toxic effect.
- 5. Photographic evidence of the adverse or toxic effect, if available.
- 6. Description of the location of the adverse or toxic effect and appearance of the waters affected.
- 7. Description of the adverse or toxic effect identified.
- 8. Applicable USEPA pesticide registration number for pesticide products or product name of the non-pesticide product the Discharger applied.
- 9. Description of any steps the Discharger has taken or will take to correct, repair, remedy, cleanup, or otherwise address any adverse or toxic effects.

The contact information for the State and Regional Water Boards is provided in Attachment I of this General Permit. If the Discharger is unable to notify the State Water Board and appropriate Regional Water Board within 24 hours, the Discharger shall do so as soon as possible and provide the rationale for why the Discharger was unable to provide such notification within 24 hours.

11.2. Five-day Written Report Requirements

The Discharger shall also provide a written submission within five (5) days of the time the Discharger becomes aware of the adverse or toxic effect. The written submission shall contain all the information as stated in Section 11.2 (Twenty-Four Hour Notification Requirements) of this General Permit as well as the following information:

 Date and time the Discharger notified the State Water Board and the appropriate Regional Water Board or federal agencies (if applicable) of the adverse or toxic effect.

- 2. Description of instructions received from the State or Regional Water Board (if any).
- 3. Species affected and estimated number of impacted organisms (other than the target species).
- 4. Details on the magnitude and scope of the affected area (e.g. aquatic square or total stream distance affected).
- 5. Description of the pesticide application rate, intended use site (e.g., banks, above, or direct to water), method of application.
- Description of any laboratory tests that were performed and the timing of such tests. The Discharger shall summarize the test results within five days after they become available.

The State Water Board staff may waive the requirements for a five-day written report if the information submitted in accordance with Section 11.1 (Twenty-Four Hour Notification Requirements) of this General Permit provides sufficient information on the adverse or toxic effect and corrective actions.

12. Corrective Actions

12.1. Exceedance of Receiving Water Monitoring Triggers

If a Receiving Water Monitoring Trigger contained in Table 1 of this General Permit or in a Notice of Applicability is exceeded in Post-Event sample, the Discharger shall perform the following actions:

- 1. Investigate the cause of the exceedance.
- 2. Implement appropriate Best Management Practices to reduce the residual pesticide or non-pesticide product concentration to be below the applicable receiving water monitoring triggers in future applications.
- 3. Evaluate the appropriateness of using alternative products and if appropriate, implement usage of alternative products.

12.2. Situations Requiring Revision of Control Measures

If any of the following situations occur, the Discharger must review and, as necessary, revise the evaluation and selection of the control measures to ensure that the situation is eliminated and will not be repeated in the future:

- 1. An unauthorized release of discharge associated with the application of pesticides or non-pesticide products occurs.
- 2. The State Water Board determines that the control measures are not sufficient for the discharge to meet applicable water quality standards for the concerned residual pesticide or non-pesticide product discharge.
- 3. Any monitoring indicating that the Discharger failed to:
 - a. Follow the label instructions for the products used.

- b. Use the lowest amount of pesticide product per application and optimum frequency of pesticide applications necessary to control pests, consistent with reducing the potential for development of pest resistance.
- c. Perform regular maintenance activities to reduce leaks, spills, or other unintended discharges of pesticides or non-pesticide products associated with the pest control use patterns covered under this General Permit.
- d. Maintain pesticide and non-pesticide product application equipment in proper operating condition by adhering to any manufacturer's conditions and industry practices, and by calibrating, cleaning, and repairing such equipment on a regular basis to ensure effective pesticide application and pest control. The Discharger must ensure that the equipment's rate of pest control application is calibrated to deliver the precise minimum quantity of pesticide or nonpesticide product needed to have an effective control program and achieve greatest efficacy against pests.

12.3. Corrective Action Deadlines

If the Discharger determines that changes to the control measures are necessary to eliminate any situation identified in Section 12.2 (Situations Requiring Revision of Control Measures) of this General Permit, the Discharger shall make such changes within 60 days. The Discharger shall take the corrective action before further discharge of the residual pesticides, or non-pesticidal product is allowed.

12.4. Effect of Corrective Action

The occurrence of a situation identified in Section 12.2 (Situations Requiring Revision of Control Measures) of this General Permit may constitute a noncompliance of this General Permit. Correcting the situation according to Section 12.3 (Corrective Action Deadlines) of this General Permit does not absolve the Discharger of liability for any original noncompliance. However, failure to comply with Section 12.3 (Corrective Action Deadlines) of this General Permit constitutes as a permit violation. The State and Regional Water Boards will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

The State Water Board and the appropriate Regional Water Boards may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) triggering corrective actions or schedules and requirements more stringent than specified in this General Permit. Those requirements and schedules will supersede those of Section 12.3 (Corrective Action Deadlines) of this General Permit if such requirements conflict.

13. Adverse Incident to Threatened or Endangered Species or Critical Habitat

If the Discharger becomes aware of adverse incident to a federally listed threatened or endangered species or its federally designated critical habitat, that may have resulted from the Discharger's pest control application, the Discharger must

immediately notify the National Marine Fisheries Service in the case of anadromous or marine species, or the U.S. Fish and Wildlife Service in the case of a terrestrial or freshwater species. This notification must be made by telephone or email immediately when the Discharger becomes aware of the adverse incident and must include at least the following information:

- 1. The caller's name, telephone number, and email address.
- 2. Pest control applicator's name and mailing address.
- 3. The name of the affected species.
- 4. How and when the Discharger became aware of the adverse incident.
- 5. Description of the location of the adverse incident.
- 6. Description of the adverse incident, including the name of the products and any USEPA pesticide registration number for each pesticide product applied around the adverse incident.
- 7. Description of any steps that have been taken or will be taken to alleviate the adverse impact on the species.

Additional information on federally-listed threatened or endangered species and federally-designated critical habitat is available from National Marine Fisheries Service website (www.nmfs.noaa.gov) for anadromous or marine species or the U.S. Fish and Wildlife Service website (www.fws.gov) for terrestrial or freshwater species.

14. Special Studies, Technical Reports, and Additional Monitoring Requirements

14.1. Additional Investigations for Receiving Water Monitoring Trigger Exceedances

Each Discharger must conduct additional investigations when the chemical monitoring shows exceedance of any receiving water monitoring trigger. The additional investigations shall identify corrective actions to eliminate exceedance of receiving water monitoring triggers caused by a pesticide or non-pesticide product application. The investigation shall include, but not be limited to evaluating the need to implement one or more of the following actions:

- 1. Revising and improving the existing Best Management Practices.
- 2. Revising the mode of application.
- 3. Reducing the amount or concentration of pesticide or non-pesticide products.
- 4. Selecting alternative methods for the pest control use pattern.

14.2. Qualified Biologist Certification Following Project Completion

For public entities and mutual water companies that have an approved State Implementation Policy or Ocean Plan exception from meeting receiving water standards (entities listed in Attachment H of this General Permit), the Discharger shall provide certification by a qualified biologist that beneficial uses of receiving waters have been restored at the conclusion of the pest control project.

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ATTACHMENT A - DEFINITIONS

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ATTACHMENT B - FEDERAL STANDARD PROVISIONS

ATTACHMENT C - MONITORING AND REPORTING PROGRAM

Code of Federal Regulations Title 40, Section 122.48 (40 C.F.R § 122.48) requires that all NPDES permits specify monitoring, reporting, and recordkeeping requirements. The California Water Code sections 13267 and 13383 also authorize the State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards) to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring, reporting, and recordkeeping requirements which implement federal and state laws and regulations. Specific monitoring and reporting requirements for adjuvants will be specified in the Notice of Applicability issued to the discharger upon application approval, when applicable.

Dischargers may form a coalition to meet the monitoring and reporting requirements specified in this permit for similar pest control applications within a given watershed or for pest control applications in similar environmental settings. If the Discharger elects in its Application Plan to submit reports through a coalition, then the coalition will prepare and implement a Monitoring and Reporting program pursuant to this Attachment and act on behalf of the Discharger with respect to reporting. If a Discharger does not participate in a coalition, the Discharger will prepare and implement an individual Monitoring and Reporting Program and submit individual reports to the State Water Board.

1. Basis for the Monitoring and Reporting Program

This Monitoring and Reporting Program is designed to address the two key questions shown below:

Question No. 1: Does the residual pesticide or non-pesticide product application cause an adverse or toxic effect to non-target organisms?

Question No. 2: Does the residual pesticide or non-pesticide product, including active ingredients, inert ingredients, and degradation byproducts, in any combination comply with the "no toxics in toxic amount" narrative toxicity objective?

2. General Monitoring Provisions

- 1. The general monitoring provisions apply to all the pest control use patterns allowed under this General Permit, unless otherwise specified.
- 2. Required samples and measurements must be representative of volume and nature of the monitored discharge. All samples shall be taken at the anticipated monitoring locations specified in the Discharger's Application Plan.
- 3. All analyses shall be conducted according to the USEPA test procedures promulgated by the Code of Federal Regulations title 40, section 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, as amended. If a test method for any active ingredient is not available, the Discharger may use alternative analytical methods. The alternative analytical methods shall be capable of achieving the method detection limits below the

receiving water monitoring triggers for the active ingredients and approved by the State Water Board Quality Assurance Officer or their designee. Any procedures to prevent the contamination of samples as described in the Application Plan shall be implemented.

- 4. All laboratory analyses shall be conducted at a laboratory accredited under the State Water Board's Environmental Laboratory Accreditation Program (ELAP) to ensure the quality of analytical data used for regulatory purposes meets the requirements of this General Permit. Sample analyses shall include quality assurance/quality control (QA/QC) data in the reports. Laboratories that perform sample analyses shall be identified in all monitoring reports. The Discharger shall institute a quality assurance/quality control program for any onsite field measurements such as electric conductivity, pH, turbidity, and temperature. The laboratory shall keep a manual containing the steps followed in this Monitoring and Reporting Program and make it available for inspection by State and Regional Water Board staff. The quality assurance project plan shall conform to the United States Environmental Protection Agency (USEPA) guidelines or procedures approved by the Deputy Director or their designee.
- 5. Records of the 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 the analyses.
 - e. The analytical techniques or methods used.
 - f. Results of analyses.
- All monitoring instruments and devices used to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their accuracy.
- 7. The Discharger, shall report monitoring results, or noncompliance, at intervals and in a manner specified in this Monitoring and Reporting Program.

3. Monitoring Locations and Sample Types

3.1. Monitoring Locations

Each Discharger shall establish monitoring locations specified in the Application Plan to demonstrate compliance with the receiving water monitoring triggers, discharge specifications, and other requirements in this General Permit. The number and location of samples shall be selected to answer the two key questions stated in Section 1 (Basis for the Monitoring and Reporting Program) of this Attachment.

A Discharger may use representative monitoring locations to characterize water quality for all waters of the United States within the Discharger's boundaries for each

environmental setting. However, the Discharger must provide technical justification for the selection of the representative monitoring locations. To be considered "representative," a location must be similar in environmental setting, hydrology, pesticide or non-pesticide product use, and other factors that affect the discharge of residual pesticides or non-pesticide products to surface waters.

The Discharger shall identify which areas are to be considered representative and provide the following monitoring location information for those sites.

- 1. A description of the treatment area,
- 2. GPS coordinates.
- 3. A map of the treatment area including monitoring location(s), and
- 4. Pesticides or non-pesticide products being applied.

The Discharger may change the specific monitoring locations initially identified as representative monitoring locations based on updated surveillance.

3.2. Sample Types

Dischargers applying pesticides or non-pesticide products for each of the pest control use patterns shall perform the following monitoring and sampling, as applicable:

- a. Background Monitoring: The Discharger shall collect background monitoring samples upstream of the application area at the time of the application event or collect samples in the application area within 24 hours prior to the application event.
- b. Event Monitoring: The Discharger shall collect event monitoring samples downstream of the application area in flowing waters or immediately outside the treatment area in non-flowing waters. Samples shall be collected immediately after the application event but shall not exceed 24 hours after the application event
- c. **Post-event Monitoring**: The Discharger shall collect post-event samples within the application area when the treatment is complete, as determined by the Discharger but no later than seven days after the pest control application.

3.3. General Monitoring Requirements

The monitoring program described in the Application Plan shall be designed to answer the two key questions stated in Section 1 (Basis for the Monitoring and Reporting Program) of this Attachment. The monitoring program in the Application Plan shall describe the tasks and time schedules in which these two key questions will be addressed. The Discharger shall monitor at planned pest control application locations as described in the Application Plan.

3.3.1. Monitoring Plan Design

The monitoring plan described in the Application Plan shall consider watershed specific attributes and waste constituents, based on the characteristics of

applications within the Discharger's area, as well as the receiving water conditions. When developing the details of a monitoring plan, the Discharger should define clear inputs to the design and then organize the inputs in a logical framework that supports effective decision making about application rates, monitoring area locations, and monitoring frequency. The logical framework shall describe:

- 1. The basic geographic and hydrographic features of the area, particularly application points and the pathways(s) of residual pesticide or non-pesticide product flows.
- 2. The target pest species.
- 3. Pesticide or non-pesticide product application practices and how they are distributed in space and time. This includes the best- and worst-case scenarios for the fate, transport, and effects of pesticides and non-pesticide products.
- 4. Description of the designated beneficial uses in each water body.
- 5. Relevant knowledge about the cumulative and indirect effects of pesticide or non-pesticide product applications, and of other sources of impact.
- 6. Mechanisms through which pest control applications could lead to designated beneficial use impacts, given the basic features of the area.
- 7. Known and potential impacts of pesticide or non-pesticide product applications on water quality, ranked in terms of relative risk, based on factors such as magnitude, frequency, and duration.
- 8. Any other information needed to assess the Discharger's area of influence.
- 9. The approach and schedule to sample monitoring locations as applicable.

3.3.2. Receiving Water Monitoring Log

The Discharger shall keep a log of receiving water conditions throughout the water body reach bounded by the treatment area. Attention shall be given to the presence or absence of:

- Floating or suspended matter
- Discoloration
- Bottom deposits
- Aquatic life
- Visible films, sheens, or coatings
- Fungi, slimes, or objectionable growths
- Potential nuisance conditions

The Discharger shall summarize notes on receiving water conditions during pest control applications in the annual report.

3.4. Visual, Physical, and Chemical Monitoring Requirements

The Discharger shall conduct monitoring at locations that are described and scheduled in the Discharger's Application Plan. Specific monitoring requirements for pest control applications based on each pest control use pattern are provided in Attachments C1 to C6.

3.5. Criteria for Reduced Monitoring Requirements

A Coalition or Discharger shall collect samples from a minimum of six application events for each constituent, unless otherwise stated in this Monitoring and Reporting Program. A Discharger may request a reduction in monitoring and sampling requirements. The Deputy Director may approve a Discharger's request for reduced monitoring and sampling requirements for a specific pest control use pattern if the following criteria is met:

- The Discharger submits a written request to the Deputy Director, requesting a reduction in monitoring and sampling requirements with an appropriate justification.
- The Discharger performs six consecutive sampling events resulting in concentrations that are less than the receiving water monitoring trigger from each environmental setting. The samples may span more than one year or one application season.

If the Deputy Director approves the Discharger's request, sampling may be reduced to one application event per year for the specific active ingredient in the specific environmental setting.

The reduction in monitoring frequency under this provision applies to all listed active ingredients including those provided exceptions under the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy).

If a Coalition or Discharger that received approval for reduced monitoring and sampling exceeds the receiving water monitoring trigger for an active ingredient, the Discharger shall revert to collecting samples from a minimum of six application events.

4. Reporting Requirements

4.1. General Monitoring and Reporting Requirements

The following general reporting requirements apply to all Coalitions or Dischargers enrolled under this General Permit:

 At least 24 hours before the start of each pest control application, the Coalition or Discharger shall inform the State Water Board and the appropriate Regional Water Board. Contact information for the State and Regional Water Boards is provided in Attachment I.

- 2. Dischargers shall comply with the Standard Provisions (Attachment B of this General Permit) related to monitoring, reporting, and recordkeeping.
- 3. The Coalition or Discharger shall submit a summary monitoring report upon request to the State Water Board or appropriate Regional Water Board.
- 4. The Coalition or Discharger shall report to the State Water Board and the appropriate Regional Water Board of any toxic chemical or pesticide release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986. (42 United States Code § 11001 et seq.)

4.2. Annual Electronic Reporting Requirements and Schedule

The Coalition or Discharger shall submit an Annual Report for each pest control application pattern. If the Discharger is a member of a coalition, the Discharger may reference monitoring information in the Coalition's Annual Report. All Annual Reports shall be submitted electronically to the California Integrated Water Quality Systems (CIWQS) database, and must include, at minimum, the following information:

- 1. A summary of adverse incidents or noncompliance with this General Permit, as well as the Application Plan's effectiveness in reducing or preventing the discharge of residual pesticides from the pest control application. The Discharger shall also discuss taken or planned corrective actions and the proposed time schedule for the corrective actions. Identified noncompliance must include a description of the requirement that was violated and a description of the violation.
- 2. A summary of the monitoring data, including the identification of water quality improvements or degradation, and recommendations for improvements to the Application Plan and the monitoring program. The Coalition or Discharger shall arrange all reported data in a tabular format. The Coalition or Discharger is not required to duplicate the submittal of data if such data is entered into a tabular format within the CIWQS database. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format, the Coalition or Discharger shall electronically submit the data in a tabular format as an attachment.
- A discussion of the Best Management Practices currently implemented and modifications to include additional Best Management Practices if any violations of this General Permit were noted.
- 4. A map showing the location of each application area and the treatment area for each pest control application.
- A summary of changes to the existing regulatory coverage under this General Permit. This includes changes to approved active ingredients and monitoring locations through the submission of a revised Notice of Intent.

- 6. A discussion of changes to the Application Plan. The Discharger shall submit the updated Application Plan at the time of the annual report submittal.
- 7. The Receiving Water Monitoring Log in accordance with Section 3.3.2 (Receiving Water Monitoring Log) of this Attachment.
- 8. A copy of the Pest Control Application Log in accordance with Section 7.4 (Pest Control Application Log) of this General Permit.

The Discharger shall submit the Annual Report in accordance with the following reporting schedule:

Reporting	Reporting	Annual Report
Frequency	Period	Due Date
Annual	January 1 to December 31	March 1

Table C - 1. Annual Report Schedule

The Discharger shall sign and certify the Annual Report per the Attachment B (Standard Provisions) of this General Permit.

4.3. Reporting Protocols

The Coalition or Discharger shall report the minimum level and the method detection limit for each applicable sample result, as determined by the procedures outlined in the Code of Federal Regulations Title 40, Part 136.

Additionally, the Coalition or Discharger shall report the results of sample analytical determinations for the presence of biological or chemical constituents using the following reporting protocols:

- Report sample results greater than or equal to the reported minimum level as measured by the laboratory (e.g. the measured chemical concentration in a sample).
- 2. Report sample results less than the reporting limit, but greater than or equal to the laboratory's method detection limit, as "Detected, but Not Quantified", or "DNQ". The Discharger shall also report the estimated chemical concentration of the sample.
- 3. If sample results are less than the laboratory's method detection limit, the Coalition or Discharger shall report the method detection limit and the qualifier as "ND".
- 4. Instruct laboratories to establish calibration standards so that the minimum level value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time shall the

Coalition or Discharger use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. Report the highest sample concentration if two or more sample results are available.

For a Discharger applying a pesticide containing the active ingredient, Pf CL145A-S, turbidity shall be used to quantify Pf CL145A-S concentrations in the receiving waters when receiving water monitoring is required (see Attachment C3 for instructions on determining the Pf CL145A-S concentration in the receiving water).

4.4. Adverse or Toxic Effect Incident Notification Requirements

4.4.1. Twenty-Four Hour Notification Requirements

Within 24 hours of the Coalition or Discharger becoming aware of an adverse or toxic effect of a pesticide or non-pesticide product's use, the Discharger shall report via email to the State Water Board and the appropriate Regional Water Board the following information:

- 10. Name of point of contact.
- 11. Pest control applicator's name and Discharger's mailing address.
- 12. Waste Discharge Identification number as provided in the Notice of Applicability.
- 13. How and when the Discharger became aware of the adverse or toxic effect.
- 14. Photographic evidence of the adverse or toxic effect, if available.
- 15. Description of the location of the adverse or toxic effect and appearance of the waters affected.
- 16. Description of the adverse or toxic effect identified and applicable USEPA pesticide registration number for pesticide products or product name of the non-pesticide product the Discharger applied.
- 17. Description of any steps the Discharger has taken or will take to correct, repair, remedy, cleanup, or otherwise address any adverse or toxic effects.

The contact information for the State and Regional Water Boards is provided in Attachment I of this General Permit. If the Discharger is unable to notify the State Water Board and appropriate Regional Water Board within 24 hours, the Discharger shall do so as soon as possible and provide the rationale for why the Discharger was unable to provide such notification within 24 hours.

4.4.2. Notification Requirements for Adverse Effect Incident to Threatened or Endangered Species or Critical Habitat

If the Discharger's pest control application adversely affects a federally-listed threatened or endangered species or federally designated critical habitat, the Discharger shall take the following actions within 24 hours of becoming aware of the adverse effect:

- Notify the State Water Board, appropriate Regional Water Board, and the appropriate federal agencies and provide the information described in Section 4.4.1 (Twenty-Four Hour Notification Requirements) of this Attachment.
- For adverse impacts to anadromous or marine species, notify the National Marine Fisheries Service (National Oceanic and Atmospheric Administration Fisheries) Santa Rosa office by phone at 707-575-6050.
- For adverse impacts to terrestrial or freshwater species, notify the United States Fish and Wildlife Service by phone at 916-414-6600.

4.4.3. Notification and Reporting Requirements for Noncompliance Involving Multiple Dischargers Under a Coalition

Where multiple Dischargers under a Coalition are authorized for a discharge that results in noncompliance, notification and reporting by any one of the Dischargers constitutes compliance for all the Dischargers within the Coalition, provided the notification is provided and documented to all members of the Coalition.

4.4.4. Five-Day Written Reporting Requirements

The Coalition or Discharger shall also provide a written report within five (5) days of becoming aware of the adverse or toxic effect. The written report must contain all of the information in Section 4.4.1 (Twenty-Four Hour Notification Requirements) of this Attachment as well as the following information:

- 7. Exact date and time the Discharger became aware of the adverse or toxic effect.
- 8. Date and time the Discharger notified the State Water Board and the appropriate Regional Water Board or federal agencies (if applicable) of the adverse or toxic effect.
- 9. Description of instructions received from the State or Regional Water Board (if any).
- 10. Species affected and estimated the number of impacted organisms (other than the target species).
- 11. Details on the magnitude and scope of the affected area (e.g. aquatic square or total stream distance affected).
- 12. Description of the pesticide application rate, intended use site (e.g., banks, above, or direct to water), method of application, name of the pesticide or non-pesticide product, active ingredients, and USEPA registration number for each applicable pesticide.
- 13. Description of any laboratory tests that were performed and the timing of such tests. The Discharger shall summarize the test results within five days after they become available.

The State Water Board staff may waive the requirements for a five-day written report if the information provided in Section 4.4.1 (Twenty-Four Hour Notification

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Requirements) of this Attachment provides sufficient information on the adverse or toxic effect and corrective actions.

Attachment C1 – Visual, Physical, and Chemical Monitoring Requirements for Aquatic Weed and Algae Management

The Discharger shall conduct background, event and post-event monitoring on a pre-determined schedule specified in section 7.1 (Application Schedule), as summarized in Table C1-1 below:

Table C1 - 2. Monitoring Requirements for Aquatic Weed and Algae Management

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency	
	Monitoring area description				
	(pond, lake, open waterway, channel, etc.);				
Visual	Appearance of waterway (sheen, color, clarity, etc.);	Not applicable	Visual Observation	All applications at all sites	
	Weather conditions				
	(fog, rain, wind, etc.)				
Visual	Harmful Algal Blooms	Not	Visual Observation	All applications at all	
Visual	(See Footnote i)	Applicable	Visual Observation	sites	
Physical	Tomporaturo	٥F	Grab	See Footnote iii	
Filysical	Temperature	Г	(See Footnote ⁱⁱ)	See Foothole	
Dhysical	nu	n∐ unite	Grab	See Footnote iii	
Physical	рН	pH units	(See Footnote ii)	See Footilote III	
Physical	Turbidity	NITLI	Grab	See Footnote iii	
FilySical	ruiblalty	NTU	(See Footnote ii)	See i ootilote iii	

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
Physical	Electrical Conductivity	µmhos/cm	Grab (See Footnote ii)	See Footnote iii
Chemical	Active Ingredient in Pesticide Product (See Footnote ^{iv}) (Not including glyphosate or imazamox)	µg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Glyphosate	µg/L	Grab (See Footnote ii)	Once per year per application event from each environmental setting
Chemical	Imazamox	µg/L	Grab (See Footnote ii)	Once per year per application event from each environmental setting
Chemical	Adjuvant Active Ingredient (See Footnote ^v)	µg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Free Reactive Phosphorus (when targeting an algal bloom)	mg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Total Phosphorus	mg/L	Grab	See Footnote iii

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
	(when targeting an algal bloom Error! Bookmark not defined.)		(See Footnote ii)	
Chemical	Free Lanthanum (when applying a lanthanum- modified clay)	µg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Total Lanthanum - Sediment (when applying a lanthanum- modified clay)	μg/kg	Grab (See Footnote ii)	See Footnote iii
Chemical	Free Alum (when applying alum)	μg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Total Alum - Sediment (when applying alum)	μg/kg	Grab (See Footnote ii)	See Footnote iii
Chemical	Hardness (if copper is monitored)	mg/L	Grab (See Footnote ii)	See Footnote iii
Chemical	Dissolved Oxygen	mg/L	Grab (See Footnote ii)	See Footnote iii

- Grab samples shall be collected three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.
- Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting per year. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting.
- [™] Active ingredients include: 2,4-D, acrolein, copper, diquat, endothall, florpyrauxifen-benzyl, flumioxazin, fluridone, hydrogen peroxide, imazapyr, penoxsulam, peroxyacetic acid, sodium carbonate peroxyhydrate, sodium hypochlorite, and triclopyr (choline and triethylamine salts).
- Monitoring and sampling for an adjuvant active ingredient shall be collected only when an adjuvant product is used. Active ingredients include constituents represented by the surrogate, nonylphenol, or constituents as specified in the approved Notice of Applicability.

Visual observations of Harmful Algal Blooms shall be conducted using the latest version of the Surface Water Ambient Monitoring Program's Visual Guide to Observing Blooms. If a potential Harmful Algal Bloom is observed, the Discharger shall report the Harmful Algal Bloom to the State Water Board within 24 hours using the Harmful Algal Bloom Incident Reports Map Form.

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Attachment C2 – Visual Monitoring Requirements for Mosquito and Other Flying Insect Vector Management

1. General Visual Monitoring Requirements

This Monitoring and Reporting Program allows coalitions of Dischargers doing similar applications within a given watershed or similar environmental settings to collectively monitor and report data to the State Water Board. The Coalition or Discharger shall perform visual assessments in the pest control application area and surrounding areas for possible and observable adverse effect incidents caused by pest control applications.

2. Visual Monitoring Requirements During Vector Management Pest Control Applications

The Discharger or Coalition shall visually assess for possible and observable adverse incidents caused by the application of pesticides in the pest control application area and surrounding areas.

During each pest control application, the Discharger or Coalition shall monitor the quantity of pesticides or non-pesticide products used. Records of pest control application and monitoring information shall be provided within the Pest Control Application Log as specified in section 7.4 of the General Permit (Pest Control Application Log).

Visual monitoring is not required during a pest control application when that application is performed in darkness or other circumstances that deem it infeasible or unsafe for an inspector to note adverse effects. Circumstances that may render visual observations infeasible during pesticide application include applications made from:

- An aircraft
- A moving road vehicle where the pest control applicator is the driver
- A watercraft where the pest control applicator is the driver
- A moving off-road wheeled or tracked vehicle where the pest control applicator is the driver

3. Visual Monitoring Requirements After Vector Control Applications

The Discharger must survey and visually assess the application and treatment areas and surrounding areas for possible and observable adverse incidents caused by the application of pesticide, post-application. The Discharger shall document post-application observations within the annual report.

Attachment C3 – Visual, Physical, and Chemical Monitoring Requirements for Aquatic Animal Invasive Species Management

1. Monitoring Requirements for Aquatic Animal Invasive Species Management

The Discharger shall conduct background, event and post-evet monitoring on a pre-determined schedule specified in section 7.1 (Application Schedule), as summarized in Table C3-1 below:

Table C3 - 3. Monitoring Requirements for Aquatic Animal Invasive Species Management

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
	Monitoring area description			
	(pond, lake, open waterway, channel, etc.);			
Visual	Appearance of waterway (sheen, color, clarity, etc.);	Not applicable	Visual Observation	All applications at all sites
	Weather conditions			
	(fog, rain, wind, etc.)			
Dhysical	Tomporatura	٥F	Grab	See Footnote vii
Physical	Temperature		(See Footnote vi)	See Foothole
Physical	рН	pH units	Grab	See Footnote vii
Filysical	ρπ	priums	(See Footnote vi)	See I oothote vii
Dhysical	Turbidity	NTU	Grab	See Footnote vii
Physical	ruibidity	(See Footnote vi)		See Foothole vii
Physical	Electrical Conductivity	µmhos/cm	Grab	See Footnote vii
Filysical	Liectrical Conductivity	μιιιιοσ/σιι	(See Footnote vi)	See I Outhole VII

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
Biological	Pf CL145A-S (See Footnote ^{viii})	mg Al/L	Grab (See Footnote vi)	See Footnote vii
Chemical	Chlorine	μg/L	Grab (See Footnote vi)	See Footnote vii
Chemical	Copper	μg/L	Grab (See Footnote vi)	See Footnote vii
Chemical	Hardness (if copper is monitored)	mg/L	Grab (See Footnote vi)	See Footnote vii
Chemical	Dissolved Oxygen	mg/L	Grab (See Footnote vi)	See Footnote vii

vi Grab samples shall be collected three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.

Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting per year. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting.

Pf CL 145A-S concentrations shall be quantified for each application event that requires receiving water monitoring as described on the USEPA's product label and this Monitoring and Reporting Program. Turbidity monitoring is required for determining the active ingredient concentration during and after the pest control application. Pf CL 145A-S concentration data shall be reported as raw NTU values and as a calculated concentration using the process outlined in Section 4.2.3.1 of this Monitoring and Reporting Program.

2. Determination of Pf CL145A-S Concentrations in Receiving Waters

The Discharger shall quantify Pf CL145A-S receiving water concentrations for each application event where receiving water monitoring is required by developing a linear regression model that correlates Pf CL145A-S concentrations with the turbidity measurements. The Discharger shall use the following steps to quantify Pf CL145A-S:

Step 1: Collect Receiving Water Samples Prior to Pest Control Application

The Discharger shall collect a minimum of four samples of known volume of receiving water, prior to the pest control application, into suitable containers.

Step 2: Prepare Spiked Samples

The Discharger shall apply varying, known concentrations of Pf CL145A-S to the untreated water samples collected in Step 1. The concentrations of Pf CL 145A-S should be within a range that brackets the Pf CL 145A-S receiving water monitoring trigger concentration of 6 mg Active Ingredient per liter (Al/L). One of the four samples shall contain solely the untreated receiving water with no concentrations of Pf CL145A-S. The Discharger shall ensure that the samples containing the product solution (untreated receiving water with Pf CL145A-S concentrations) are well mixed and homogenous.

Step 3: Measure Turbidity

The Discharger shall measure and record the turbidity value in Nephelometric Turbidity Unit (NTU) for each of the corresponding samples prepared in Step 2.

Step 4: Generate a Calibration Curve

To correlate the concentration of Pf CL145A-S with turbidity, the Discharger shall develop a linear regression plot using the linear regression equation of y = mx+b. The Discharger shall plot the Pf CL145A-S concentrations from Step 2 on the Y-axis and the corresponding, measured turbidity values from Step 3 on the X-axis. The terms in the linear regression equation are defined below:

- a. y is the sample concentration of the active ingredient, Pf CL145A-S in units of milligrams of Active Ingredient per liter (mg Al/L)
- b. m is the slope of the line connecting the points
- c. x is the measured turbidity
- d. b is the point on the line that intercepts the Y-axis.

Step 5: Determine the Pf CL145A-S Concentration

The Discharger shall measure the turbidity values in the receiving water during and after the pest control application. The Discharger shall then use the linear regression equation developed in Step 4 to determine the Pf CL145A-S concentration.

The Discharger shall conduct Steps 1-5 for each pest control application event that requires Pf CL145A-S monitoring to account for receiving water conditions present

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at the time of the pest control application. This process shall be conducted even if a previous calibration curve for Pf CL145A-S and turbidity was developed in the past for the same receiving water.

Attachment C4 – Visual, Physical, and Chemical Monitoring Requirements for Agricultural Pest Management

The Discharger shall conduct background, event and post-event monitoring on a pre-determined schedule specified in the Application Schedule (Permit Section 7.1), as summarized in Table C4-1 below:

Table C4 - 4. Monitoring Requirements for Agricultural Pest Management

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
Visual	Monitoring area description (pond, lake, open waterway, channel, etc.)	Not applicable	Visual Observation	See Footnote ¹
Visual	Appearance of waterway (sheen, color, clarity, etc.)	Not applicable	Visual Observation	See Footnote 1
Visual	Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	See Footnote 1
Physical	Temperature	°F	Grab (See Footnote ²)	See Footnote ³
Physical	рН	pH units	Grab (See Footnote 2)	See Footnote 3
Physical	Turbidity	NTU	Grab (See Footnote 2)	See Footnote 3
Physical	Electrical Conductivity	µmhos/cm	Grab (See Footnote 2)	See Footnote 3
Chemical	Adjuvant Active Ingredient (See Footnote ⁴)	µg/L	Grab (See Footnote 2)	See Footnote 3

Chemical	Pesticide Active Ingredient (See Footnote ⁵)	μg/L	Grab (See Footnote 2)	See Footnote 3
Chemical	Dissolved Oxygen	mg/L	Grab (See Footnote 2)	See Footnote 3

- ³ Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting per year. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting.
- ⁴ Monitoring and sampling for an adjuvant active ingredient shall be collected only when an adjuvant product is used. Active ingredients include constituents represented by the surrogate, nonylphenol, or constituents as specified in the approved Notice of Applicability.
- ⁵ Pesticide active ingredients include: acetamiprid, aminopyralid, *Bacillus thuringiensis kurstaki* (*Btk*), carbaryl, chlorsulfuron, clopyralid, cyfluthrin, dinotefuran, glyphosate, imazapyr, imidacloprid, malathion, naled, nuclear polyhedrosis virus, pheromone, pyrethrins, spinosyn A and D, triclopyr butoxyethyl ester, and triclopyr (triethylamine salt).

¹ All applications at 10% of all application areas or six application areas, whichever is greater. If applying to less than six application areas, monitoring shall be performed at all application areas.

² Grab samples shall be collected three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.

Attachment C5 – Visual, Physical, and Chemical Monitoring Requirements for Terrestrial Rodent Management

The Discharger shall conduct background, event and post-event monitoring on a pre-determined schedule specified in the Application Schedule (Permit Section 7.1), as summarized in Table C5-1 below:

Table C5 - 5. Monitoring Requirements for Terrestrial Rodent Management

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
Visual	Monitoring area description	Not applicable	Visual Observation	See Footnote ¹
Visual	Appearance of waterway (sheen, color, clarity, etc.)	Not applicable	Visual Observation	See Footnote 1
Visual	Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	See Footnote 1
Physical	Temperature	°F	Grab (See Footnote ²)	See Footnote ³
Chemical	Brodifacoum	μg/L	Grab (See Footnote 2)	See Footnote 3
Chemical	Dissolved Oxygen	mg/L	Grab (See Footnote 2)	See Footnote 3

¹ All Ocean areas near at least 10% of all application areas or near six application areas, whichever is greater. If applying to less than six application areas, monitoring shall be performed at Ocean areas near all application areas.

² Grab samples shall be collected three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.

³ Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting year. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting.

Attachment C6 – Visual, Physical, and Chemical Monitoring Requirements for Non-Pesticide Products for Experimental Use

The Discharger shall conduct background, event and post-event monitoring on a pre-determined schedule specified in the Application Schedule (Permit Section 7.1), as summarized in Table C6-1 below:

Table C6 - 6. Monitoring Requirements for Experimental Non-Pesticide Products

Sample Type	Constituent/ Parameter	Units	Sample Method	Minimum Sample Frequency
Visual	Monitoring area description	Not applicable	Visual Observation	See Footnote 1
Visual	Appearance of waterway (sheen, color, clarity, etc.)	Not applicable	Visual Observation	See Footnote 1
Visual	Weather conditions (fog, rain, wind, etc.)	Not applicable	Visual Observation	See Footnote 1
Physical	Temperature	°F	Grab (See Footnote 2)	See Footnote 3
Physical	рН	pH units	Grab (See Footnote 2)	See Footnote 3
Physical	Turbidity	NTU	Grab (See Footnote 2)	See Footnote 3
Physical	Electrical Conductivity	µmhos/cm	Grab (See Footnote 2)	See Footnote 3
Chemical	Non-Pesticide Product Ingredient	ug/L	Grab (See Footnote 2)	See Footnote 3

	(See Footnote 4)			
Chemical	Dissolved Oxygen	mg/L	Grab (See Footnote 2)	See Footnote 3

¹ All pest application events at 10% of all application areas or six application areas, whichever is greater. If applying to less than six application areas, monitoring shall be done at all application areas.

² Grab samples shall be collected three feet below the surface of the water body or at mid water column depth if the depth is less than three feet.

³ Samples shall be collected from a minimum of six application events for each active ingredient in each environmental setting per year. If there are less than six application events in a year, collect samples during each application event for each active ingredient in each environmental setting.

⁴ The non-pesticide product ingredient shall be identified within the Notice of Intent. Depending on the characteristics of the non-pesticide product, monitoring and sampling shall be either mass-based or concentration-based.

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ATTACHMENT D - FACT SHEET

ATTACHMENT E - NOTICE OF INTENT

ATTACHMENT F - NOTICE OF TERMINATION

ATTACHMENT G – EXPERIMENTAL NON-PESTICIDAL PRODUCT USE PLAN TEMPLATE

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ATTACHMENT H – STATE IMPLEMENTATION POLICY AND OCEAN PLAN EXCEPTION LIST

ATTACHMENT I - REGIONAL WATER BOARD CONTACT INFORMATION