

STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2015-0029-DWQ  
AMENDING

STATE WATER RESOURCES CONTROL BOARD  
WATER QUALITY ORDER 2013-0002-DWQ  
(AS AMENDED BY ORDER 2014-0078-DWQ)  
GENERAL PERMIT NO. CAG 990005

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT FOR RESIDUAL AQUATIC PESTICIDE DISCHARGES TO WATERS OF THE  
UNITED STATES FROM ALGAE AND AQUATIC WEED CONTROL APPLICATIONS

The State Water Resources Control Board (State Water Board) adopted Water Quality Order 2013-0002-DWQ on:	March 5, 2013
The State Water Board adopted Water Quality Order 2014-0078-DWQ on	May 20, 2014
This Order amends Water Quality Order 2013-0002-DWQ (as amended by Order 2014-0078-DWQ). The State Water Board adopted this Order on:	<b>March 3, 2015</b>
This Order becomes effective on:	<b>March 3, 2015</b>

THIS ORDER HEREBY amends Water Quality Order 2013-0002-DWQ (as amended by Order 2014-0078-DWQ) as shown in the attachment to this Order. Text in strikeout indicates language proposed to be deleted and text in underline indicates language proposed to be added.

IT IS FURTHER ORDERED that staff post a conformed copy of Order 2013-0002-DWQ (as amended by Order 2014-0078-DWQ) incorporating the revisions made by this Order.

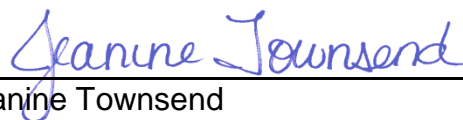
I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with its attachment is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on March 3, 2015.

AYE: Chair Felicia Marcus  
Vice Chair Frances Spivy-Weber  
Board Member Tam M. Doduc  
Board Member Dorene D'Adamo  
Board Member Steven Moore

NAY: None

ABSENT: None

ABSTAIN: None



Jeanine Townsend  
Clerk to the Board

**Permit Coverage and Application Requirements, Section II.A, General Permit Coverage, page 3, add the following pesticide active ingredients to the first paragraph as shown below:**

Except for discharges on tribal lands that are regulated by a federal permit, this General Permit covers the point source\* discharge to waters of the United States of residues resulting from pesticide applications using products containing 2,4-D, acrolein, calcium hypochlorite, copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr, penoxsulam, sodium carbonate peroxyhydrate, sodium hypochlorite, and triclopyr-based algaecides and aquatic herbicides, and adjuvants containing ingredients represented by the surrogate nonylphenol. This General Permit covers only discharges of algaecides, and aquatic herbicides that are currently registered for use in California, or that become registered for use and contain the above-listed active ingredients and ingredients represented by the surrogate of nonylphenol.

**“HEREBY ORDERED” Statement, page 6, add the following Executive Director delegation authority reference as a new Item B:**

THEREFORE, IT IS HEREBY ORDERED that this General Permit supersedes Order No. 2004-0009-DWQ except for enforcement purposes, and in order to meet the provisions contained in division 7 of the Water Code (commencing with §13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder:

- A. ~~¶~~The Discharger shall comply with the requirements in this Order.
- B. The Executive Director is authorized to amend this Order to add active ingredients that are registered by DPR for the control of aquatic weeds, and to grant exceptions pursuant to section 5.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP)*.

**Limitations and Discharge Requirements, Section VI, Receiving Water Limitations, Table 3, page 7, add chlorine receiving water limitations as shown below:**

**Table 3. Receiving Water Limitations**

Constituent/ Parameter	BENEFICIAL USE <sup>1</sup>				Basis
	MUN, µg/L	WARM or COLD, µg/L	Other than MUN, WARM, or COLD, µg/L	All Designations	
2,4-D	70				U.S. EPA MCL
Acrolein <sup>2</sup>	320	21	780		U.S. EPA Water Quality Criteria, 1986.
<u>Chlorine</u>		<u>Freshwater Acute Criterion = 20 µg/L</u>			<u>U.S. EPA's Ambient Water Quality Criteria for Freshwater Aquatic Life Protection</u>
		<u>Saltwater Acute Criterion = &lt; 10 µg/L</u>			<u>California Ocean Plan</u>
Copper <sup>2</sup>				Dissolved Freshwater <sup>3</sup> Copper Chronic = $0.960 \exp\{0.8545 [\ln(\text{hardness}^4)] - 1.702\}^{5,6}$  Dissolved Saltwater <sup>3</sup> Copper Chronic = 3.1 µg/L <sup>5,6</sup>	California Toxics Rule
Diquat	20				U.S. EPA MCL
Endothall	100				U.S. EPA MCL
Fluridone	560				U.S. EPA Integrated Risk Information System
Glyphosate	700				U.S. EPA MCL
Nonylphenol				Freshwater Chronic Criterion = 6.6 µg/L  Saltwater Chronic Criterion = 1.7 µg/L	U.S. EPA National Recommended Ambient Water Quality Criteria
Toxicity	Algaecide and aquatic herbicide applications shall not cause or contribute to toxicity in receiving water(s).				Regional Water Boards' Basin Plans

**Provisions, Section IX.C.1, Special Provisions, Reopener Provisions, page 14, add the following Executive Director delegation authority language as a new Item f:**

- f. This General Permit covers the application of pesticides that are based on active ingredients that are currently registered by DPR for the control of algae and aquatic weeds. When DPR registers a new active ingredient for algae and aquatic weed control, this General Permit needs to be reopened to add the new active ingredient to the permit before Dischargers may begin using the active ingredient. In addition, when DPR

registers a new active ingredient that is also a priority pollutant and has been added to this General Permit, this General Permit may also be reopened to allow Dischargers to obtain an exception from meeting receiving water limitations for the priority pollutant in accordance with SIP section 5.3. It is very resource intensive to have the State Water Board amend this General Permit on a frequent basis. Thus, this General Permit contains a delegation from the State Water Board to the Executive Director to amend this General Permit for these two purposes.

**Attachment C, Sample Types, Section C.II.B.3, page C-4, add clarifying text as shown below:**

**Post-Event Monitoring.** Post-event monitoring samples shall be collected within the treatment area within one week after application or when treatment is complete.

**Attachment C, Receiving Water Monitoring Requirements – Surface Water, Section C.III.B, Table C-1, page C-6, add clarifying language to footnote 5 and add chlorine as an active ingredient to footnote 7 as shown below:**

- <sup>5</sup> Collect samples from a minimum of six application events for each active ingredient in each environmental setting (flowing water and non-flowing water) per year, except for glyphosate. 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 (flowing water and non-flowing water). If the results of monitoring from six consecutive sampling application events show concentrations that are less than the receiving water limitation/trigger for an active ingredient in an environmental setting, sampling shall be reduced to one application event per year for that active ingredient in that environmental setting. To support a reduction in monitoring frequency, the six sampling events showing concentrations that are less than the receiving water limitation/trigger for an active ingredient must be consecutive and can span more than one year or application season. The reduction in monitoring frequency under this provision applies to all listed active ingredients including SIP listed active ingredients. If the yearly sampling event shows exceedance of the receiving water limitation/trigger for an active ingredient in an environmental setting, then sampling shall return to six application events for that active ingredient in each environmental setting. For glyphosate, collect samples from one application event from each environmental setting (flowing water and non-flowing water) per year.
- <sup>7</sup> 2,4-D, acrolein, chlorine, dissolved copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr, penoxsulam, and triclopyr.

**Fact Sheet, Section III, Discharge Description, page D-9, add the following pesticide active ingredients to the first paragraph as shown below:**

This General Permit covers the point source discharge to waters of the United States of pesticide residues resulting from applications using products containing 2,4-D, acrolein, calcium hypochlorite, copper, diquat, endothall, fluridone, glyphosate, imazamox, imazapyr,

penoxsulam, sodium carbonate peroxyhydrate, [sodium hypochlorite](#), and triclopyr-based algaecides and aquatic herbicides, and adjuvants containing ingredients represented by the surrogate nonylphenol. This General Permit covers only discharges of algaecides, aquatic herbicides, and adjuvants that are currently registered for use in California, or that become registered for use and contain the above-listed active ingredients and ingredients represented by the surrogate of nonylphenol.

**Fact Sheet, Section IV.C.4, Antidegradation Policy, page D-13, add the following pesticide active ingredient to the second paragraph as shown below:**

The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and Resolution No. 68-16. The conditions of this General Permit require residual algaecide and aquatic herbicide discharges to meet applicable water quality objectives. Specifically, the General Permit sets receiving water limitations for 2,4-D, acrolein, [chlorine](#), copper, diquat, endothall, fluridone, glyphosate, and nonylphenol. It also sets receiving water monitoring triggers for imazapyr and triclopyr triethylamine (TEA).

**Fact Sheet, Section IV.C.8, Delegation to Executive Director, page D-15, add the following Executive Director delegation authority language as a new Item 8:**

8. This General Permit covers the application of pesticides that are based on active ingredients that are currently registered by DPR for the control of algae and aquatic weeds. When DPR registers a new active ingredient for algae and aquatic weed control, this General Permit needs to be reopened to add the new active ingredient to the permit before Dischargers may begin using the active ingredient. In addition, when DPR registers a new active ingredient that is also a priority pollutant and has been added to this General Permit, this General Permit may also be reopened to allow Dischargers to obtain an exception from meeting receiving water limitations for the priority pollutant in accordance with SIP section 5.3. It is very resource intensive to have the State Water Board amend this General Permit on a frequent basis. Thus, this General Permit contains a delegation from the State Water Board to the Executive Director to amend this General Permit for these two purposes. In cases of significant public controversy, the Executive Director may determine that any permit amendment otherwise subject to this section will be considered by the State Water Board.

**Fact Sheet, Section VI.B.1, Receiving Water Limitations, Table D-2, add chlorine receiving water limitations as shown below:**

Table D-2. Receiving Water Limitations

Constituent/ Parameter	BENEFICIAL USE <sup>1</sup>				Basis
	MUN, µg/L	WARM or COLD, µg/L	Other than MUN, WARM, or COLD, µg/L	All Designations	
2,4,-D	70				U.S. EPA MCL
Acrolein <sup>2</sup>	320	21	780		U.S. EPA Water Quality Criteria, 1986.
<u>Chlorine</u>		<u>Freshwater<sup>3</sup> Acute Criterion = 20 µg/L</u>			<u>U.S. EPA's Ambient Water Quality Criteria for Freshwater Aquatic Life Protection</u>
		<u>Saltwater<sup>3</sup> Acute Criterion = &lt; 10 µg/L</u>			<u>California Ocean Plan</u>
Copper <sup>2</sup>				Dissolved Freshwater <sup>3</sup> Copper Chronic = $0.960\exp\{0.8545[\ln(\text{hardness}^4)] - 1.702\}$ <sup>5,6</sup>  Dissolved Saltwater <sup>3</sup> Copper Chronic = 3.1 µg/L <sup>5,6</sup>	California Toxics Rule
Diquat	20				U.S. EPA MCL
Endothall	100				U.S. EPA MCL
Fluridone	560				U.S. EPA Integrated Risk Information System
Glyphosate	700				U.S. EPA MCL
Nonylphenol				Freshwater Chronic Criterion = 6.6 µg/L  Saltwater Chronic Criterion = 1.7 µg/L	U.S. EPA National Recommended Ambient Water Quality Criteria
Toxicity	Algaecide and aquatic herbicide applications shall not cause or contribute to toxicity in receiving water(s).				Regional Water Boards' Basin Plans

**Fact Sheet, Section VI.B.1, Receiving Water Limitations, page D-24, add the following text after Table D-2 and before Receiving Water Monitoring Triggers as shown below:**

Sodium hypochlorite, also known as liquid bleach, is used for laundry, household, and general disinfecting uses. It is commercially available at strengths of five to 15 percent but is typically 10 percent or 12.5 percent available chlorine. It is more widely used than its dry counter part, calcium hypochlorite, due to its lower cost for transport, and is more easily handled.<sup>11</sup>

Chlorine is the only toxicant that results from the use of calcium hypochlorite and sodium hypochlorite-based pesticide products that are used to control algae and aquatic weeds. To protect all designated beneficial uses of the receiving water from chlorine residual, the most protective (lowest) and appropriate limitation for chlorine should be selected as the water quality limitation for a particular water body. The U.S. EPA National Recommended Ambient Water Quality Criteria for freshwater aquatic life criteria and California Ocean Plan water quality objectives for chlorine are applicable. U.S. EPA has recommended ambient water quality criteria of 11 µg/l as a continuous concentration (four-day average) and 19 µg/l as the maximum concentration (one-hour average) for freshwater aquatic life protection for chlorine. The California Ocean Plan Water Quality Objectives, which protect human health and marine aquatic life from constituents in marine waters of California, list 2 µg/l as the six month median, 8 µg/l as the daily maximum, and 60 µg/l as the instantaneous maximum for chlorine.

However, because of the lack of precision with current chlorine residual measuring instruments, it would be more appropriate to set the freshwater chlorine receiving water limitations to 10 µg/l as a monthly average and 20 µg/l as a daily maximum; a daily maximum of nondetect or <10 µg/l is appropriate to protect marine aquatic life.

<sup>11</sup> G. C. White, Handbook of Chlorination, 2nd ed. (New York: Van Nostrand Reinhol Company Inc, 1986) 63-70.

**Attachment G, Exception List, revise Attachment G as shown below:**

**Attachment G – Exception List**

**LIST OF PUBLIC AGENCIES AND MUTAL WATER COMPANIES GRANTED AN EXCEPTION PURSUANT TO STATE WATER RESOURCES CONTROL BOARD POLICY FOR IMPLEMENTATION OF TOXICS STANDARDS FOR INLAND SURFACE WATERS, ENCLOSED BAYS, AND ESTUARIES OF CALIFORNIA (POLICY)**

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

In addition to submitting the CEQA documentation, these public entities and mutual water companies have also complied with the other exception requirements of section 5.3 of the Policy.

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

1. Byron-Bethany Irrigation District
2. City of Antioch Department of Public Works
3. Contra Costa Water District
4. Contra Costa County Flood Control and Water Conservation District
5. Department of Food and Agriculture
6. Department of Water Resources
7. Fresno Irrigation District
8. Friant Water Users Authority
9. Glenn-Colusa Irrigation District
10. [James Irrigation District](#)
11. [Madera Irrigation District](#)
12. Maine Prairie Water District



13. Marin Municipal Water District
14. Merced Irrigation District
15. Metropolitan Water District of Southern California
16. Modesto Irrigation District
17. Nevada Irrigation District
18. North Marin Water District
19. Oakdale Irrigation District
20. Placer County Water Agency
21. Potter Valley Irrigation District
22. Princeton-Cordora-Glenn Irrigation District
23. Provident Irrigation District
24. Reclamation District 108
25. Reclamation District 1000
26. Reclamation District 1004
27. Santa Cruz Water Department
28. Solano Irrigation District
29. South Feather Water and Power Agency
30. South Sutter Water District
31. Tehama Colusa Canal Authority
32. Turlock Irrigation District
33. Woodbridge Irrigation District
34. Yolo County Flood Control and Water Conservation District