

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

ORDER NO. R5-2016-0015

**AMENDING WASTE DISCHARGE REQUIREMENTS GENERAL ORDERS
FOR GROWERS WITHIN THE CENTRAL VALLEY
THAT ARE MEMBERS OF A THIRD-PARTY GROUP:**

**EASTERN SAN JOAQUIN RIVER WATERSHED R5-2012-0116-R3
TULARE LAKE BASIN AREA R5-2013-0120-R1
WESTERN TULARE LAKE BASIN AREA R5-2014-0001
WESTERN SAN JOAQUIN RIVER WATERSHED R5-2014-0002-R2
SAN JOAQUIN COUNTY AND DELTA AREA R5-2014-0029-R1
SACRAMENTO RIVER WATERSHED AREA R5-2014-0030-R1
GRASSLAND DRAINAGE AREA R5-2015-0095**

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds that:

1. The Central Valley Water Board's authority to regulate waste discharges that could affect the quality of waters of the State, which includes both surface water and groundwater, is found in the Porter-Cologne Water Quality Control Act (California Water Code Division 7).
2. The Central Valley Water Board issued Waste Discharge Requirements General Orders for growers within the Central Valley that are members of a third-party group for discharges from irrigated lands to surface water and to groundwater (Irrigated Lands Regulatory Program (ILRP) General Orders).
3. "Irrigated lands" in the ILRP General Orders is defined as "Land irrigated to produce crops or pasture for commercial purposes; nurseries; and privately and publicly managed wetlands."
4. All growers regulated by the Central Valley Water Board's ILRP General Orders are required to complete a Farm Evaluation, and prepare and implement a Nitrogen Management Plan. Certification of the Nitrogen Management Plan, and submittal of a Nitrogen Management Plan Summary Report are additional requirements for parcels within a high vulnerability groundwater area for which nitrate is identified as a constituent of concern. For parcels in areas susceptible to erosion and with the potential to cause discharge of sediment that may degrade surface waters, a Sediment and Erosion Control Plan must be prepared.
5. To comply with the applicable requirements of the ILRP Orders, templates approved or issued by the Executive Officer must be used. The purposes of the templates are to collect information consistently across irrigated agricultural areas and commodities, and to minimize the costs for growers to provide the required information.
6. During the development of the ILRP Orders, concerns were raised regarding the applicability of templates for Farm Evaluation, Nitrogen Management Plan and Nitrogen Management Summary Report, and Sediment and Erosion Control Plan to wetland areas. Wetland managers provided comments that fertilizers and pesticides (except minimal

herbicide use) are not a part of the practices on wetlands, and that wetlands typically have elements associated with practices to prevent and minimize sediment discharge and erosion, such as holding ponds, vegetative buffers, and minimum tillage.

7. The earliest-adopted ILRP General Orders do not account for managed wetlands. After stakeholders brought attention to the unique features of managed wetlands, subsequent General Orders were developed to include provisions for a Managed Wetland Evaluation template and a wetland-specific Sediment and Erosion Control Plan template. The later General Orders also do not require the preparation of Nitrogen Management Plans and Nitrogen Management Plan Summary Reports for parcels that are solely operated as managed wetlands.
8. On 29 July 2014, the Executive Officer of the Central Valley Water Board issued a template for wetland evaluation.
9. Irrigated pastures, especially grazed pastures, can be largely sustainable with limited or no fertilizer inputs. Grazing livestock return most of the plant nutrients consumed back into the pasture system as animal waste. There is evidence that irrigated pastures with no external nitrogen inputs (e.g., synthetic or organic fertilizer, stockpiled manure, compost), and either with mechanical harvest and haying or with livestock grazing, reduce nitrogen leaching and can lower previously elevated nitrate concentrations in the groundwater.
10. This Order amends the following ILRP General Orders to bring consistency in approach and clarify requirements that apply to managed wetlands and to irrigated pasture:
 - Waste Discharge Requirements for Growers Within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group R5-2012-0116 (adopted on 7 December 2012, and revised on 3 October 2013, 27 March 2014, and 17 April 2015),
 - Waste Discharge Requirements General Order for Growers within the Tulare Lake Basin Area that are Members of a Third-Party Group R5-2013-0120 (adopted on 19 September 2013, and revised on 4 December 2014 and 10 December 2015),
 - Waste Discharge Requirements General Order for Growers within the Western Tulare Lake Basin Area that are Members of a Third-Party Group R5-2014-0001 (adopted on 9 January 2014),
 - Waste Discharge Requirements for Growers within the Western San Joaquin River Watershed that are Members of a Third-Party Group R5-2014-0002 (adopted on 9 January 2014, and revised on 17 April 2015 and 31 July 2015),
 - Waste Discharge Requirements for Growers within the San Joaquin County and Delta Area that are Members of a Third-Party Group R5-2014-0029 (adopted on 12 March 2014, and revised on 17 April 2015),
 - Waste Discharge Requirements for Growers within the Sacramento River Watershed Area that are Members of a Third-Party Group R5-2014-0030 (adopted on 12 March 2014, and revised on 5 June 2015),

- Waste Discharge Requirements for Growers in the Grassland Drainage Area R5-2015-0095 (adopted on 31 July 2015).
11. Given the unique environmental conditions and the effects of wetlands on water quality, the Managed Wetland Evaluation template is to be used instead of the standard Farm Evaluation template.
 12. As fertilizers are not applied to managed wetlands, Nitrogen Management Plans and Nitrogen Management Plan Summary Reports are not required for parcels that are solely operated as a managed wetland.
 13. Recognizing that wetlands generally act as a sedimentation basin and do not contribute to excess sediment, wetlands are exempt from the requirement to prepare a Sediment and Erosion Control Plan. The option to propose a wetland-specific Sediment and Erosion Control Plan template is therefore unnecessary.
 14. Nitrogen Management Plans and Nitrogen Management Plan Summary Reports are not required for Irrigated pasture to which no external nitrogen is applied. Direct nutrient returns in excretions of grazing livestock are a portion of the total nutrient supply in the forage eaten by animals, and are not considered a fertilizer application to irrigated pasture.

An underline/strikeout document that indicates the alterations that this Order will make to the ILRP General Orders is attached hereto as Attachment 1 and incorporated herein by reference.

15. The Central Valley Water Board, acting as a lead agency pursuant to CEQA (Pub. Resources Code, § 21000 et seq.), certified a Program Environmental Impact Report (PEIR) for the Irrigated Lands Regulatory Program on 7 April 2011. This Order relies on the environmental impact analysis contained in the PEIR to satisfy the requirements of CEQA. Pursuant to this Order, the removal of NMP and SECP reporting requirements for managed wetlands, and the removal of NMP reporting requirements for irrigated pasture are within a range of options identified and analyzed in the PEIR. Therefore, the PEIR identified, disclosed, and analyzed all potentially significant environmental impacts of this Order.
16. The Central Valley Water Board has notified interested agencies and persons of its intent to adopt this Order for discharges of waste from irrigated lands within the Central Valley, and has provided them with an opportunity for a public hearing and an opportunity to submit comments.
17. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to this Order.

IT IS HEREBY ORDERED that Waste Discharge Requirements ILRP General Orders No. R5-2012-0116-R3, R5-2013-0120, R5-2014-0001, R5-2014-0002-R2, R5-2014-0029-R1, R5-2014-0030-R1, and R5-2015-0095 are amended by making the modifications identified in Attachment 1 of this Order.

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Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filling petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 19 February 2016.

Original signed by,

PAMELA C. CREEDON, Executive Officer

Attachment 1: Amendments to Waste Discharge Requirements R5-2012-0116-R3, R5-2013-0120, R5-2014-0001, R5-2014-0002-R2, R5-2014-0029-R1, R5-2014-0030-R1 and R5-2015-0095.

ATTACHMENT 1

ORDER R5-2016-0015

AMENDING WASTE DISCHARGE REQUIREMENTS GENERAL ORDERS
FOR GROWERS WITHIN THE CENTRAL VALLEY THAT ARE
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EASTERN SAN JOAQUIN RIVER WATERSHED R5-2012-0116-R3
TULARE LAKE BASIN AREA R5-2013-0120-R1
WESTERN TULARE LAKE BASIN AREA R5-2014-0001

Finding 4, revise as follows:

“Irrigated lands” means land irrigated to produce crops or pasture used for commercial purposes including lands that are planted to commercial crops that are not yet marketable (e.g., vineyards and tree crops). Irrigated lands also include nurseries, and privately and publicly managed wetlands (excluding the non-irrigated upland habitat associated with managed wetlands).

Section VII.B. Farm Evaluation, add a footnote to the title:

[The Executive Officer issued a Managed Wetland Evaluation template that is to be used for managed wetlands.]

Section VII.C. Sediment and Erosion Control Plan, add a footnote to the title:

[The requirement for a Sediment and Erosion Plan does not apply to parcels that are operated exclusively as a managed wetland.]

Section VII.D. Nitrogen Management Plan, add a footnote to the title:

[The requirement for a Nitrogen Management Plan does not apply to irrigated pasture with no external nitrogen inputs, or to parcels that are operated exclusively as a managed wetland.]

Attachment A, section *Nitrogen Management Plans*, add paragraph with a footnote at the end of the section:

Wetland managers have provided comments that fertilizers are not applied to managed wetlands. Therefore, the Nitrogen Management Plan and nitrogen Summary Report requirements do not apply to parcels that are operated solely as managed wetlands. In the case of irrigated pasture, there is evidence that with no external nitrogen inputs (synthetic or organic fertilizer, stockpiled manure, compost), either mechanical harvest and haying, or livestock grazing reduce nitrogen leaching and can lower elevated nitrate concentrations in the groundwater.^[footnote] Direct nutrient returns in excretions of grazing livestock are a portion of the total nutrient supply in the forage eaten by animals, and are not considered a fertilizer application to irrigated pasture. Hence, Nitrogen Management Plans and Summary Reports are not required for irrigated pasture where no external nitrogen is applied.

[Owens LB, Bonta JV. (2004). Reduction of Nitrate Leaching with haying or Grazing and Omission of Nitrogen Fertilizer. Journal of Environmental Quality 33: 1230-1237.]

Attachment A, after the section *Sediment and Erosion Control Plans* add a new section:

Managed Wetlands

These wetlands represent a small fraction of the wetlands that historically occurred prior to conversion to agriculture and other land uses and the creation of complex water control infrastructure that now exists. A common wetland management objective is to create and maintain native plant communities and provide habitat for a diverse range of species. In addition to supporting migratory and resident birds, listed species, and other fish and wildlife, natural and managed wetlands may also provide other environmental benefits, such as flood management and improved water quality.

Seasonal wetlands are typically flooded between August and October and drawn down in spring between March and May. Depending on spring weather conditions, the type of wetland vegetation that is being encouraged, or the need to discourage certain species, irrigation can occur any time from May through July and can vary in both frequency and duration. Irrigation of a relatively limited acreage of cropland may also occur during summer. Crops grown to provide food or habitat for waterfowl include irrigated pasture, small grains, corn and winter wheat. Flood-up and drawdown periods typically result in some discharge flows from wetlands.

While many wetland management activities differ from agricultural management activities and, therefore, the timing and nature of the potential effects on water quality are different, there is evidence that wetland drainage can have negative impacts on water quality including salts and high biological oxygen demand. Although discharges from wetlands may contain wastes that could affect the quality of waters of the state, the potential number of pollutants discharged from managed wetlands is limited compared with agricultural operations.

During the development of the ILRP Orders, concerns were raised regarding the applicability of templates for Farm Evaluation, Nitrogen Management Plan and Nitrogen Management Summary Report, and Sediment and Erosion Control Plan to wetland areas. Wetland managers provided comments that fertilizers and pesticides are not a part of the practices on wetlands, and that wetlands typically have elements associated with practices to prevent and minimize sediment discharge and erosion, such as holding ponds, vegetative buffers, and minimum tillage.

As the capacity of both managed and natural wetlands to reduce contaminants such as nitrates, phosphorus, pesticides, and sediments is well-documented, this Order does not require the preparation of Nitrogen Management Plans and Nitrogen Management Plan Summary Reports, or sediment erosion and control plans for parcels that are solely operated as a managed wetland. Given the unique environmental conditions and effects of wetlands on water quality, the board recognizes that a different evaluation template from the standard farm evaluation template may be better suited for managed wetlands. To address the unique features of managed wetlands, an alternate managed wetland template has been issued by the Executive Officer.

**WESTERN SAN JOAQUIN RIVER WATERSHED R5-2014-0002-R2
SAN JOAQUIN COUNTY AND DELTA AREA R5-2014-0029-R1
SACRAMENTO RIVER WATERSHED AREA R5-2014-0030-R1**

Section VII.C. Sediment and Erosion Control Plan, add a footnote to the title:

[The requirement for a Sediment and Erosion Plan does not apply to parcels that are operated exclusively as a managed wetland.]

Section VII.D. Nitrogen Management Plan, edit footnote in the title:

[The requirement for a Nitrogen Management Plan does not apply to irrigated pasture with no external nitrogen inputs, or to parcels that are operated exclusively as a managed wetland.]

Section VIII.C. Templates, revise the second sentence as follows:

The third-party may submit a written request to the Executive Officer, for approval of a Managed Wetland Evaluation Template within 60 days of issuance of an NOA to the third-party, ~~and a wetland-specific Sediment and Erosion Control Template within 60 days of Executive Officer approval of the Sediment Discharge and Erosion and Assessment Report.~~

Attachment A, section *Nitrogen Management Plans*, add text with a footnote after the last paragraph:

In the case of irrigated pasture, there is evidence that with no external nitrogen inputs (e.g., synthetic or organic fertilizer, stockpiled manure, compost), either mechanical harvest and haying, or livestock grazing reduce nitrogen leaching and can lower nitrate concentrations in the groundwater.^[footnote] Direct nutrient returns in excretions of grazing livestock are a portion of the total nutrient supply in the forage eaten by animals, and are not considered a fertilizer application to irrigated pasture. Hence, Nitrogen Management Plans and Summary Reports are not required for irrigated pasture where no external nitrogen is applied.

[Owens LB, Bonta JV. (2004). Reduction of Nitrate Leaching with haying or Grazing and Omission of Nitrogen Fertilizer. Journal of Environmental Quality 33: 1230-1237.]

Attachment A, revise the last paragraph in section *Managed Wetlands* as follows:

Since fertilizers are not used on managed wetlands, and wetlands generally act as a sedimentation basin and do not contribute to excess sediment, this Order does not require the preparation of nitrogen management plans and nitrogen management plan summary reports, or sediment erosion and control Plans for parcels that are solely operated as a managed wetland. ~~Although the wetland itself will generally act as a sedimentation basin and not contribute to excess sediment, wetland drainage channels, access roads, or stream crossings may contribute to discharge of excess sediment. The sediment discharge and erosion assessment will provide information on the vulnerability status of areas with managed wetlands.~~ Given the unique environmental conditions and effects of wetlands on water quality, the board recognizes that a different evaluation template from the standard farm evaluation template may be better suited for managed wetlands. To address the unique features of managed wetlands, an alternate managed wetland template may be crafted and proposed by the third-party. ~~The third party also~~

~~has an option to submit a wetland-specific Sediment and Erosion Control Plan Template.~~
Any template to be used for wetlands reporting should be developed collaboratively by the third-party, wetland managing agencies, Resource Conservation Districts, and federal and state agencies.

GRASSLAND DRAINAGE AREA R5-2015-0095

Section VII.C. Nitrogen Management Plan, edit footnote in the title:

[The requirement for a Nitrogen Management Plan does not apply to irrigated pasture with no external nitrogen inputs, or to parcels that are operated exclusively as a managed wetland.]