

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER R5-2016-0077

AMENDING WASTE DISCHARGE REQUIREMENTS ORDER R5-2005-0097  
FOR  
AMADOR WATER AGENCY  
MACE MEADOW GOLF AND COUNTRY CLUB, INC.  
BUCKHORN WATER TREATMENT PLANT AND REUSE SITE  
AMADOR COUNTY

The California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board), finds:

**Waste Discharge Requirements Order R5-2005-0097**

1. The Buckhorn Water Treatment Plant (WTP) consists of a membrane micro-filtration system, two 250,000-gallon above ground potable water storage tanks, an 80,000-gallon above ground reclaimed water equalization tank, and a surge control/break tank. Backwash water from membrane cleaning is conveyed to two unlined storage ponds prior to irrigation on the Mace Meadow Golf Course. A Backwash Water Recovery System, which consists of membranes, was installed in February 2011 for reducing flow to the golf course during the fall and winter seasons when golf course has less demand for irrigation.
2. On 24 June 2005, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2005-0097, prescribing requirements for Buckhorn WTP and reuse site in Amador County.
3. The Amador Water Agency (AWA) owns and operates the WTP and a backwash wastewater conveyance line. The Mace Meadow Golf Course is owned and operated by Mace Meadow Golf and Country Club, Inc. AWA and Mace Meadow Golf and Country Club, Inc. are jointly referred to as "Discharger".

**Proposed Amendment**

4. On 18 April 2016, AWA requested to amend WDRs Order R5-2005-0097 to allow the use of aluminum chlorohydrate in the water treatment process and to allow installation of a membrane filter backwash water recycling system.
5. Aluminum chlorohydrate will be used as a coagulant to reduce undesirable disinfection byproducts in the potable water and to meet drinking water requirements. Based on 35 sets of data collected in pilot testing during June 2015 through February 2016, dissolved aluminum concentrations in the golf storage pond were below the reporting limit except one sample was 590 µg/L, which is less than the primary Maximum Concentration Limit of 1,000 µg/L for aluminum. Therefore, use of aluminum chlorohydrate is unlikely to cause groundwater degradation beyond the water quality objective for aluminum. This Order authorizes the use of aluminum chlorohydrate in the water treatment process.

6. AWA is in the process of receiving funds from the California Drinking Water State Revolving Fund program for installing a filter backwash water recycling system on site, which will include a plate settler system, sludge drying beds (sand filters), and recycle pumps. Polymer will be added in order to thicken the backwash water prior to vacuum filtration on the sludge drying beds. Sludge collected from the drying beds will be dried onsite and then transported to a local landfill. After completion of the proposed improvements, the backwash water will flow through a plate settler system and then be filtered through vacuum sand filters. The filtered backwash water will be returned to the raw stream of the WTP and may not be applied to the golf course in the future. The existing Backwash Water Recovery System will be replaced with the proposed recycling system. The WTP process schematic is shown on Attachment A, which is attached hereto and made part of the Order by reference. The proposed backwash water recycling system will be installed within approximately one and half years after receiving the funds. This Order authorizes installation of a membrane filter backwash water recycling system.
7. Monitoring and Reporting Program R5-2005-0097 is revised to include requirements for total and dissolved aluminum in the storage ponds at the golf course.

#### **Public Notice**

8. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
9. The Central Valley Water Board, in a public meeting, heard, and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that Order R5-2005-0097 is amended to allow the use of aluminum chlorohydrate in the water treatment process and to allow installation of the proposed backwash water cycling system. Pursuant to Water Code sections 13263 and 13267, the Discharger, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with amended Order R5-2005-0097 as follows:

- Section C, Effluent Limitations, of WDRs Order R5-2005-0097 shall be amended as follows:
  1. Wastewater conveyed to the golf course storage ponds shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>30- Day Average</u>
Total Dissolved Solids	mg/L	450
Total Coliform Organisms	MPN/100 mL	Less than 2.2
Total Nitrogen	mg/L	10

2. Wastewater conveyed to the golf course storage ponds shall not have a pH of less than 6.5 or greater than 8.4.

**3. Wastewater in the golf course storage ponds should not exceed 1,000 µg/L for dissolved aluminum concentration.**

- Attachment A shall be added to WDRs Order R5-2005-0097.

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, sections 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 filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](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 14 October 2016.

- original signed by -

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PAMELA C. CREEDON, Executive Officer