

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2016-XXXX

AMENDING CEASE AND DESIST ORDER R5-2016-0007

FOR
MORNING STAR PACKING COMPANY, L.P.
AND FRED GOBEL
THE MORNING STAR TOMATO PACKING PLANT
COLUSA COUNTY

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

1. The Morning Star Packing Company, L.P. owns and operates a tomato processing facility located south of the City of Williams, and east of Interstate 5, in Colusa County. The facility includes approximately 609 acres of crop land that is used as land application areas (LAAs). An additional 95 acres of LAA (known as Field MS1) is owned by Fred Gobel. The Morning Star Packing Company, L.P. and Fred Gobel are hereafter referred to jointly as "Discharger".
2. Waste Discharge Requirements (WDR) Order R5-2013-0144, adopted by the Central Valley Water Board on 5 December 2013, regulates the discharge of waste associated with the operation of the facility.
3. On 18 February 2016, the Central Valley Water Board adopted Cease and Desist Order (CDO) R5-2016-0007. The CDO contains a compliance schedule with specific dates that the Discharger must follow for completing certain tasks and submitting reports. The CDO also lists specific changes which are to be made to Monitoring and Reporting Program (MRP) R5-2013-0144. A revised MRP incorporating those changes was subsequently issued on 14 March 2016.
4. On 13 April 2016, Morning Star submitted a letter questioning the Prosecution Team's changes to the inaccurate BOD loading calculation in the WDRs and the requirement in MRP Revision No. 1 to monitor for total nitrate. This Order is a limited amendment to address these two issues.
5. Shortly after adoption of the CDO, the Prosecution Team was informed by the Advisory Team that the formula in Section C.2.b of the WDRs for calculating the Biochemical Oxygen Demand (BOD) mass loading rate contained an error, in that the "V" or Volume input should not account for gallons per day, but rather gallons per irrigation cycle. Board staff cannot change a Board-adopted Order, and therefore the CDO is being amended to correct the erroneous formula in the WDRs for an interim period during the effective term of the Amended CDO unless or until the 2013 WDRs are revised with a corrected formula.
6. The CDO states that the Discharger shall monitor the Settling Pond and Cooling Pond for nitrate, yet MRP Revision No.1 states that these ponds shall be monitored for total nitrogen. The lack of total nitrogen monitoring was an oversight when the CDO was drafted, as this information will be needed by the Board's Permitting staff when the

Discharger applies to revise its WDRs. Therefore, the CDO is being amended to include the requirement to sample the Settling Pond and Cooling Pond for total nitrogen (reported as the sum of nitrate-nitrogen, nitrite-nitrogen, and total Kjeldahl nitrogen).

7. On 25 July 2016, the Prosecution Team, Advisory Team, and Morning Star engaged in a pre-hearing conference to discuss outstanding issues related to the proposed Amended CDO, specifically, the Parties' approach to the corrected formula for BOD mass loading and the scope of the hearing on the proposed Amended CDO. The proposed amendments reflect the Parties' common understanding and agreement on the following BOD mass loading issues as discussed during the pre-hearing conference:
 - a. The Parties agree that formula for the BOD mass loading calculation in the 2013 WDRs is incorrect as the "V" of Volume input should not account for gallons per day, but rather gallons per irrigation cycle;
 - b. The Parties agree that the BOD mass loading data Morning Star submitted to the Board during the 2014 and 2015 processing seasons did not strictly comply with the erroneous formula in the 2013 WDRs;
 - c. The Parties agree that strict compliance with the erroneous formula in the 2013 WDRs would yield no violations of the 100 lbs/day/acre BOD mass loading limit during 2014 and 2015, therefore, Findings referring to BOD mass loading violations for those years will be removed from the Amended CDO; and
 - d. The Parties agree that Morning Star will prospectively use the corrected formula articulated in Ordered Paragraph 12 of the Amended CDO beginning with the 2016 processing season.
8. The issuance of this Order is being taken for the protection of the environment and as such is exempt from provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) pursuant to California Code of Regulations, title 14, sections 15061 subdivision (b)(3), 15306, 15307, 15308, and 15321 subdivision (a)(2).
9. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend the CDO and has provided them with an opportunity to submit their written views and recommendation.

IT IS HEREBY ORDERED THAT:

Effective immediately, CDO R5-2016-0007 is amended as shown in the italics/strikeout format below and in Attachment 1 to this Order.

1. Change the Title and Order number throughout the document to "*Amended R5-2016-0007-01.*"
2. Modify Finding 7, bullet point 6, to specify "*Nitrogen* effluent and mass loading limit violations".
3. Delete "and Effluent Limit C.2 (related to BOD loading)" from Findings 18 and 19.

4. Modify heading prior to Finding 62 to specify “*Nitrogen Effluent and Mass Loading Limitation Violations.*”
5. Replace Finding 63 with the following:

“63. Effluent and Mass Loading Limitations C.2.b. of the WDRs articulates the formula Morning Star shall follow to calculate BOD Mass Loading and determine compliance with the BOD Mass Loading Limitation. The Prosecution Team and Morning Star agree that there is an error in this formula in that the “V” or Volume input should not account for gallons per day, but rather gallons per irrigation cycle. The Parties further agree that BOD Mass Loading data submitted to the Board during the 2014 and 2015 processing seasons did not strictly comply with the erroneous formula in the 2013 WDRs. Strict compliance with that erroneous formula would yield no violations of the 100 lbs/acre/day BOD mass loading limit during 2014 and 2015 processing seasons as confirmed by Morning Star’s 1 April 2016 data submission to the Board using the 2013 WDRs formula for those reporting years.”

6. Replace 64 with the following:

“64. Based on the recognition that the formula for BOD mass loading is incorrect in the 2013 WDRs, the Parties agree that Morning Star will prospectively use the corrected formula articulated in Ordered Paragraph 12 of this Amended CDO beginning with the 2016 processing season. The corrected formula is consistent with Morning Star’s previous calculations detailed in the 8 January 2016 Technical Memorandum titled *Land Application Loading Rates* and a 4 February 2016 letter from its consultant titled *BOD Loading Rate Calculation Details for Morning Star Williams*. The corrected formula for BOD Mass Loading is intended to be the interim formula for the term of the Amended CDO unless or until the Board adopts revisions to the 2013 WDRs with a corrected formula.”

7. Replace Finding 65 with the last three sentences of original Finding 64. Finding 65 will now read:

“65. Upon reviewing Morning Star’s monitoring reports, it is evident that there is uncertainty in the volume of wastewater flowing to each field, which may reduce the accuracy of BOD loading rate calculations. Currently, only the total discharge to the irrigation fields is measured and the percentage that discharges to each field is estimated. To improve the accuracy of the actual loading rates to each field, the Order requires additional flow monitoring to each field.”

8. Modify Finding 69 to read:

“69. This Order requires Morning Star to use a corrected formula for BOD Mass Loading for the term of the Amended CDO unless or until the Board adopts revisions to the 2013 WDRs, follow the recommendations for wastewater application periods and cycle drying times, use the two surrogates to manage BOD loading, and describe the changes it will make to ensure that it meets the Effluent and Mass Loading Limitations.”

9. Modify the last sentence of Finding 75 to read: "However, as noted in the table above, the extent of manganese pollution in groundwater has increased."
10. For Finding 77, delete the phrase "including reducing the BOD loading to its fields" and change the word "submitting" to "submit".
11. Add new Finding 110 to read: "On 18/19 August 2016, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board considered the proposed amendments to Cease and Desist Order No. R5-2016-0007-01."
12. Modify Item 12 of the "IT IS HEREBY ORDERED" section as follows:
~~By 1 April 2016, the Discharger shall submit revised monitoring reports for 2014 and 2015. The All BOD loading reports shall include an Excel spreadsheet that shows the BOD loading calculations for each irrigation cycle and field. This spreadsheet shall be cumulative for the year, and at a minimum, shall include the following columns: field irrigated, dates of irrigation, BOD concentration (based on three most recent results), estimated flow, BOD loading (lb/day), irrigation acreage, irrigation cycle in days, resting time between cycles, and BOD loading rate (lb/ac/day). The spreadsheet shall also include text describing how the BOD loading rates were calculated, and shall document that they were calculated as required by Effluent Loading Limitations C.2.b of the 2013 WDRs."~~
according to the correct formula as articulated below:

$$M = \frac{8.345 (CV) + M_x}{A (CT)}$$

- Where:
- M* = mass of BOD applied to each LAA field, in lb/ac/day/irrigation cycle
 - C* = concentration of BOD (in mg/L) based on the average of the three most recent wastewater monitoring results
 - V* = total volume of wastewater applied to the LAA field during the irrigation cycle, in millions of gallons
 - A* = area of the LAA field irrigated, in acres
 - CT* = cycle time, in days (i.e., irrigation cycle length from first day water was first applied to the last day of the drying time)
 - M_x* = BOD mass from other sources (e.g., cattle manure, Settling Pond solids, and residual solids) in pounds
 - 8.345 = unit conversion factor

For compliance and enforcement purposes, beginning with the 2016 processing season, the Discharger shall calculate BOD mass loading according to the formula articulated above for the effective term of this Order unless or until the 2013 WDRs are revised with the correct formula. BOD mass loading computation calculated pursuant to the terms of this Order shall be in lieu of the erroneous calculation articulated in the 2013 WDRs.

13. Modify the last sentence of the first paragraph, as well as the second paragraph, of Item 21 of the "IT IS HEREBY ORDERED" section as follows:
"...The report shall reference the ~~corrected~~ BOD loading rates *submitted on 1 April 2016* for 2014 and 2015 *which utilized the correct formula articulated above in Ordered Paragraph 12*, as well as the revised "Groundwater Samples Lab-Test Results" table."

"Alternatively, ... The report shall reference the ~~corrected~~ BOD loading rates *submitted on 1 April 2016* for 2014 and 2015 *which utilized the correct formula articulated above in Ordered Paragraph 12*, ..."
14. Modify Item 29.h of the "IT IS HEREBY ORDERED" section to delete "as specified by Effluent Limitation C.2.b of the 2013 WDRs" and replace with "according to the corrected formula for BOD mass loading in Ordered Paragraph 12."
15. Modify Item 29.k (i) of the "IT IS HEREBY ORDERED" section as shown below:

"(i) the Cooling Pond shall be sampled at the northwest corner once per week during the processing season for the following constituents: BOD, ~~nitrate~~, *total nitrogen (reported as the sum of nitrate-nitrogen, nitrite-nitrogen, and total Kjeldahl nitrogen)*, total dissolved solids, and fixed dissolved solids. In addition, influent to the Cooling Pond shall be monitored once per week for BOD, *total nitrogen (reported as the sum of nitrate-nitrogen, nitrite-nitrogen, and total Kjeldahl nitrogen)*, ~~nitrate~~, total dissolved solids, and fixed dissolved solids..."
16. Modify Item 29.k(ii) of the "IT IS HEREBY ORDERED" section as shown below:

"(ii) the Settling Pond shall be sampled once per week at the southwest corner while it contains wastewater for the following constituents: total dissolved solids, BOD, and ~~nitrate~~, *total nitrogen (reported as the sum of nitrate-nitrogen, nitrite-nitrogen, and total Kjeldahl nitrogen)*).
17. Add the following to the signature block at the end of the CDO:

"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 18 February 2016, *and as amended by Order R5-2016-XXX on _____ 2016.*"

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 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 _____.

PAMELA C. CREEDON, Executive Officer

Attachment 1: full copy of Amended CDO with changes incorporated

WSW/MO: 29 July 2016