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8 Attorneys for Monterey Coastkeeper
9 And The Otter Project

10 BEFORE THE STATE WATER RESOURCES CONTROL BOARD

11 IN RE: GALLO CATTLE COMPANY, JOSEPH) PETITION TO REVIEW
12 GALLO FARMS FEED LOT, Monterey County,) CALIFORNIA REGIONAL WATER
13 California) QUALITY CONTROL BOARD,
14) CENTRAL COAST REGION'S
15) ORDER NO. R3-2010-0004 and
16) NPDES PERMIT NO. CA005601

17 Pursuant to Water Code § 13320, Monterey Coastkeeper and The Otter Project
18 (collectively "Coastkeeper") hereby petition the State Water Resources Control Board ("State
19 Board") to review the California Regional Water Quality Control Board, Central Coast Region's
20 ("Regional Board") action on February 4, 2010 adopting Order No. R3-2010-0004 and NPDES
21 Permit No. CA005601 ("Permit") governing discharges of waste for up to 30,000 head of cattle
22 at Gallo Cattle Company's Joseph Gallo Farms Feed Lot, a large confined animal feeding
23 operation located in the Salinas Valley near Johnson Creek and the town of Gonzales, California.

24 **I. NAME AND CONTACT INFORMATION OF PETITIONER.**

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26 The Otter Project
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II. REGIONAL BOARD AND STATE BOARD ACTIONS BEING PETITIONED.

This petition seeks review of the Regional Board's action on February 4, 2010 adopting Order No. R3-2010-0004 and NPDES Permit No. CA005601 governing discharges of waste at Gallo Cattle Company's Joseph Gallo Farms Feed Lot. A true and correct copy of the Regional

1 Board's order is attached hereto as Exhibit A.

2 **III. THE DATE THE REGIONAL BOARD ACTED.**

3 February 4, 2010.

4 **IV. STATEMENT OF REASONS THE REGIONAL BOARD'S ACTION WAS**
5 **INAPPROPRIATE OR IMPROPER.**

6 Coastkeeper seeks State Board review in order to rectify (1) the Regional Board's failure
7 to employ representative wastewater samples in reviewing and approving the Nutrient
8 Management Plan ("NMP") incorporated into the Permit and (2) the Regional Board's improper
9 delegation to staff of the review and approval of a groundwater monitoring program that is part
10 of the Permit.

11 In approving the NMP and incorporating it into the Permit, the Regional Board relied
12 upon a single wastewater sample taken in October 2008 at a time when the wastewater available
13 for irrigation at the facility was comprised mostly of freshwater rather than wastewater.
14 However, a sample taken in April 2009, prior to Gallo's submission of its final revised NMP,
15 shows total Kjedahl nitrogen and phosphorous concentrations in the irrigation waste at levels 21
16 times and 66 times greater than the October 2008 concentrations selected by Gallo. Irrigation
17 wastewater samples collected by Gallo over the years show that the April 2009 sample is within
18 the normal range of nutrients found in Gallo's irrigation wastewater whereas the October 2008
19 sample is an outlier that is not representative of the quality of the wastewater and drastically
20 underestimates the pollution levels at the facility. By failing to consider representative sampling
21 of Gallo's irrigation wastewater, the NMP is not supported by the weight of the evidence and is
22 fundamentally flawed.

23 The Regional Board opted to include a Groundwater Monitoring Program in the Permit
24 as one of the Permit's waste discharge requirements. However, at the time it adopted the Permit,
25 there was no groundwater monitoring plan for the Regional Board to review and adopt. Instead,
26 the Regional Board decided to require the discharger to prepare the plan within 120-days of the
27 Board's adoption of the Permit, subject to the Executive Officer's review and approval. By
28 including the groundwater monitoring plan as a requirement of the Permit without bringing it
back to the Regional Board for review and approval and, equally important, mandatory public

1 review and comment, the Regional Board improperly delegated the modification of a waste
2 discharge requirement to the discharger and staff in violation of Water Code § 13223(a).

3 The Regional Board did not consider the weight of the evidence in approving the NMP
4 and incorporating it into the NPDES permit and proceeded in a manner inconsistent with law by
5 delegating a requirement contained within the Permit to the discharger and its staff. The State
6 Board should remand the NPDES permit to the Regional Board to reconsider the NMP in light of
7 all of the representative wastewater data that was neither considered or addressed in the NMP or
8 the Permit and to amend the Permit to include a requirement that the groundwater monitoring
9 plan be processed as an amendment to the Permit to be reviewed by the public and adopted, with
10 any appropriate modifications, by the Regional Board.

11 **V. STATEMENT OF POINTS AND AUTHORITIES.**

12 **A. Factual Background.**

13 Gallo Cattle Company operates the Joseph Gallo Farms Feed Lot, a cattle containment
14 and feeding operation located near the town of Gonzales, California in the Salinas Valley in
15 Monterey County. Johnson Creek flows along the southern boundary of the facility. Permit,
16 Attachment C. Johnson Creek flows into the Salinas River approximately three miles
17 downstream from the facility. Permit, p. 6. The lower Salinas River, beginning near where
18 Johnson Creek enters the river, has been identified as impaired by fecal coliform bacteria, nitrate,
19 nutrients, pesticides, salinity / TDS / chlorides, and toxaphene. *See* Permit, p. F-8.

20 Since Gallo began operating the facility, the facility has contained about 10,000 to 11,000
21 head of dairy heifers. *See* Gallo Annual Reports; NMP, p. 2 (Permit, Attachment H) (Exhibit
22 A); Hearing Tape (Gallo consultant - "average has been 10,500"). The permit authorizes up to
23 30,000 head of cattle at the facility. Permit, p. 6. The heifers are raised as a production herd.
24 Permit, p. F-4. Once the animals are about 18 months old, they are moved to operating dairies at
25 other locations owned and operated by the Gallo Cattle Company. *Id.* The Feed Lot covers
26 373.2 acres of land. *Id.* 101 acres are covered with confined animal pens and feeding
27 operations. *Id.* 64 acres of the site consist of oat fields that are used to dispose of wastewater
28 and clean stormwater collected in various ponds at the facility by spray irrigation. *Id.*

1 There are a total of ten water storage ponds at the facility. *See* NMP, Figure 2. Three
2 ponds collect wastewater from the confined animal pens – Ponds 1, 2, and 146. *Id.* *See* Permit
3 Application, p. 2. These wastewater ponds are located in the northwest corner of the facility.
4 Exhibit B. Ponds 1 and 146 flow into Pond 2. NMP, p. 3. Wastewater collected in these ponds
5 consists of contaminated stormwater that has flowed through the animal pens and associated
6 features. Ponds 1, 146 and 2 collect very little waste water during the dry season. Hearing Tape
7 (during the dry season “[t]here’s a little, not much there’s the watering troughs and the urine”).
8 Manure is removed from the pens and processed at an on-site composting facility. Fact Sheet, p.
9 F-5.

10 Three ponds – Ponds 12B, 13N and 13S – are clustered in the northeast corner of the
11 facility upgradient of the production areas. NMP, Figure 2. These three ponds collect
12 stormwater before it runs onto the facility’s production areas. *See id.* The remaining three
13 ponds at the facility – Lake Crandall East, Lake Crandall West, and 12A – are used to contain
14 either waste water or storm water as needed. Permit Application, p. 2; Fact Sheet, p. F-5. One
15 last pond – labeled the Freshwater Pond – contains well water used for irrigation of the 64-acres
16 as well.

17 Pond 12A serves as the pond from which wastewater is spray irrigated onto the facility’s
18 64-acres disposal field. Hearing Tape; NMP, p. 3. Wastewater from Pond 2 is pumped up to
19 Pond 12A to await disposal. Pond 12A also stores freshwater from the three storm water ponds
20 as well as groundwater pumped from the Freshwater Pond. Hearing Tape (Gallo consultant - “a
21 significant amount of clean water that does come down from upslope. All that water is diverted
22 around or into clean water ponds on the property. . . . That water is used as irrigation along with
23 the wastewater”); NMP, p. 3. As the summer proceeds, the amount of freshwater relative to
24 wastewater in Pond 12A increases. *See* NMP, Table 1 (for example, in August wastewater is
25 10.5% and freshwater is 89.5%).

26 Since at least 2004, Gallo has collected water quality data of effluent sprayed from Pond
27 12A onto its disposal fields and provided the sampling results in its semi-annual and annual
28 reports to the Regional Board. *See* Exhibit B. Since April 2004 and as of the February 4, 2010
hearing date, Gallo has submitted and the Permit’s administrative record contains 12 analytical

1 results for composite samples taken from Pond 12. *Id.* Each of those 12 samples was analyzed
2 for, among other parameters, total phosphorus, total Kjeldahl nitrogen, organic nitrogen and total
3 nitrogen. *Id.* The average level of phosphorus Gallo measured in its 12 effluent samples was
4 60.6 mg/L, with a high of 140 mg/L on November 30, 2005. The average level of total nitrogen
5 was 270.6 mg/L, with a high of 580 mg/L on April 13, 2005. The average level of total Kjeldahl
6 nitrogen Gallo measured in its 12 effluent samples was 269 mg/L, with a high of 440 mg/L on
7 September 29, 2004.

8 Gallo submitted its original version of the NMP in March 2009. Permit, Attachment H.
9 The NMP was revised and resubmitted in July 2009 in order “to incorporate more detail based on
10 a series of questions and recommendations provided by the Water Board in a Memorandum
11 dated May 27, 2009 prepared by Tetra Tech” and “in response to new federal regulations for
12 CAFOs, which became effective on December 22, 2008. . . .”¹ *Id.*, p. 1; Fact Sheet, p. F-4. In
13 the NMP, Gallo relied on only one of 11 effluent samples the facility had obtained prior to July
14 2009 – the sample collected on October 28, 2008 – in order to calculate its nutrient loadings to
15 the 64-acre disposal field. NMP, p. 5 (“In order to characterize the wastewater, a wastewater
16 sample was collected on October 28, 2008 and analyzed for constituents including total
17 phosphorus, total Kjeldahl nitrogen, nitrate-nitrogen (NO₃-N), organic nitrogen, and total
18 nitrogen”).² The October 28, 2008 sample results were the lowest concentrations for
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25 ¹ Neither Tetra Tech’s recommendations nor any record of the February site inspection
26 were provided to Coastkeeper as part of the Regional Board’s response to Coastkeeper’s request
for the administrative record.

27 ² As of the date of the Permit hearing, Gallo had collected 12 samples in the previous five
28 years, all of which are included in the administrative record. The following chart summarizes
the sampling dates and the concentrations of pollutants relevant to this petition:

1 phosphorous, total Kjeldahl nitrogen and total nitrogen measured by Gallo in the previous five
 2 years. That late in the season, Pond 2 is generally empty and the water contained in Pond 12A is
 3 predominantly freshwater from the two other storm water ponds and groundwater from the
 4 Freshwater Pond. Based on the low pollutant concentrations measured in the October 28, 2008
 5 sample, Gallo in its NMP calculates that the facility discharges 0.015 pounds of phosphorus per
 6 1000 gallons of wastewater totaling 458 pounds for the entire irrigation season. NMP, pp. 5-6.
 7 The NMP calculates that the facility discharges 215 pounds of total Kjeldahl nitrogen and
 8 ammonium nitrogen per irrigation season at a rate of 0.016 pounds per 1000 gallons of effluent.
 9 *Id.*

10 On April 28, 2009, prior to submitting its revised NMP, Gallo took an effluent sample
 11 from Pond 12A. Exhibit B. The levels in that sample of phosphorous, total Kjeldahl nitrogen
 12 and total nitrogen were typical of the levels measured in the previous four years. The level of
 13 phosphorus measured in the April 28, 2009 sample was greater than 21 times the level relied
 14 upon in the NMP. *See supra*, n. 5. The level of total Kjeldahl nitrogen in the April 2009 sample
 15 was 66 times greater than the October 2008 sample. *Id.* Rerunning the equations used in the
 16 NMP to calculate the total nutrients being discharged to the disposal field employing the April
 17 2009 samples results in drastic increases in the amount of nutrients discharged to the field. In the
 18

	Phosphorus	TKN	Total N	Org. Nitrogen	Amm. N
4/14/2004	87	250	250	130	120
9/29/2004	97	440	440	440	6.9
4/13/2005	91	580	580	440	140
11/30/2005	140	340	340		73
4/12/2006	78	280	280	140	130
10/4/2006	51	230	230	110	120
4/10/2007	4.5	120	120	ND	130
10/10/2007	93	230	230	210	17
4/16/2008	37	480	490	180	310
10/28/2008	1.8	3.8	13	1.9	1.9
4/28/2009	38	250	250	32	210
11/12/2009	8.7	24	24	24	ND
Average:	60.58	268.98	270.58	142.33	104.9

1 case of phosphorus, the revised rate of discharge is 0.73 pounds per 1000 gallons rather than the
2 0.015 pounds per 1000 gallons calculated by the NMP. *See* NMP, p. 4. Given the estimated
3 waste water discharge included in the NMP of 13,560,000 gallons per irrigation season, the April
4 2009 phosphorus concentration amounts to 9,898.8 pounds of phosphorous per irrigation season.
5 As for total Kjeldahl nitrogen, the total discharge for the irrigation season based on the April
6 2009 sample is 28,290 pounds. The amount of ammonium is slightly lower at 24,668 pounds.
7 Adding in the 11,951 pounds of available N from groundwater added to Pond 12A, nutrient
8 loading based on the sample from April 2009 would greatly exceed the 32,256 pounds of N
9 annually that the NMP estimates could be taken up by the triple-cropped disposal field. NMP,
10 p. 7.

11 **B. The Regional Board's Adoption of Gallo's NMP is Contrary to the Weight**
12 **of the Evidence Because the NMP Relies Upon a Single Non-Representative**
13 **Sample of Gallo's Irrigation Effluent.**

14 Gallo's NMP teeters on a single, unrepresentative data point. As a result, the plain
15 weight of the evidence demonstrates that the NMP is not reflective of reality at the Gallo facility
16 and the Regional Board abused its discretion in adopting the NMP as part of the Permit. The
17 State Board should also require the Permit to increase the frequency of wastewater monitoring
18 conducted by Gallo from two samples per year to weekly sampling during irrigation periods in
19 order to assure that improper dilution of the wastewater from the facility's Freshwater Pond or
20 storm water ponds during a sampling event is not misrepresenting the wastewater quality being
21 sprayed on the field at non-sampled times.

22 "Nutrient management plans are . . . a critical indispensable feature of the 'plan, or
23 program established by the Administrator or any State' in order to regulate Large CAFO land
24 application discharges." *Waterkeeper Alliance, Inc. v. United States EPA*, 2005 U.S. App.
25 LEXIS 6533 at 42 (2d Cir. 2005). "[T]he only way to ensure that non-permitted point source
26 discharges of manure, litter, or process wastewaters from CAFOs do not occur is to require . . .
27 [land application] in accordance with site specific nutrient management practices." *Id.* (citing
28 EPA *Preamble to the Final Rule*, 68 Fed. Reg. 7176, 7198 (Feb. 12, 2003). "Since nutrient
management plans embody all the relevant "site specific nutrient management practices," it is

1 clear that . . . nutrient management plans are a *sine qua non* of the “regulation, standard, plan, or
2 program” [EPA] established to regulate land application discharges.” *Waterkeeper Alliance*,
3 2005 U.S. App. LEXIS 6533 at 42.

4 With respect to land discharges of wastewater, the establishment in a nutrient
5 management plan of “an application rate that minimizes the transport of phosphorus and nitrogen
6 from the land application field to surface waters” is the most important effluent limitation in the
7 CAFO rules. *Waterkeeper Alliance*, 2005 U.S. App. LEXIS 6533 at 21 (citing 40 C.F.R. §§
8 412.4(c)(1)-(2)). The whole purpose of requiring the permitting authority to review the NMPs is
9 “to ensure that the nutrient management plans designed by the Large CAFOs will in fact reduce
10 land application discharges in a way that ‘achieves realistic production goals, while minimizing
11 nitrogen and phosphorus movement to surface waters’ and to prevent Large CAFOs ‘from
12 misunderstanding or misrepresenting’ their specific situation and adopting improper or
13 inappropriate nutrient management plans, with improper or inappropriate waste application
14 rates.” *Id.* at 32 (citing 40 C.F.R. § 412.4(c)(1)) (emphasis added). Because the Regional Board
15 failed to review any other wastewater data collected by Gallo from its irrigation pond, Gallo
16 succeeded in misrepresenting their discharges and the Regional Board adopted an improper and
17 inappropriate NMP “with improper or inappropriate waste application rates.”

18 Gallo, in preparing its NMP, chose the “narrative rate approach” provided by the EPA in
19 the federal CAFO regulations. 40 CFR § 122.42 (e)(5)(ii)(A). As EPA’s rule explains:

20 (ii) Narrative rate approach. An approach that expresses rates of application as a
21 narrative rate of application that results in the amount, in tons or gallons, of
22 manure, litter, and process wastewater to be land applied, according to the
23 following specifications: (A) ... the amount of nitrogen and phosphorus in the
24 manure, litter, and process wastewater to be applied; the amount of nitrogen and
25 phosphorus in the manure, litter, and process wastewater to be applied; [and]
26 consideration of multi-year phosphorus application...

25 40 CFR § 122.42 (e)(5)(ii)(A). When implementing its NMP, the CAFO “must rely on . . . (2)
26 The results of most recent representative manure, litter, and process wastewater tests for nitrogen
27 and phosphorus taken within 12 months of the date of land application, in order to determine the
28 amount of nitrogen and phosphorus in the manure, litter, and process wastewater

1 to be applied.” 40 CFR § 122.42 (e)(5)(ii)(A)(2) (emphasis added). Instead of relying upon the
2 data at hand indicating the actual amount of nitrogen and phosphorus representative of Gallo’s
3 wastewater quality, Gallo and then the Regional Board opted for the absolute lowest numbers
4 detected by Gallo at the end of an irrigation season when freshwater in Pond 12A was at its
5 highest and wastewater from Pond 2 was perhaps nonexistent.

6 Since at least 2004, the Regional Board collected semi-annual and annual reports from
7 Gallo that contained no less than 12 analytical results. Even a quick glance at Gallo’s full data
8 set shows that the October 28, 2008 sample relied upon by Gallo and the Regional Board was an
9 outlier. Staff made no effort in the Fact Sheet to discuss the normally much higher levels of
10 phosphorus and nitrogen regularly measured in Gallo’s wastewater.

11 Prior to July 2009, when Gallo submitted its final revised NMP, they took another sample
12 of the irrigation wastewater on April 28, 2009. Gallo’s April 2009 sample reflected much more
13 accurately the range of test results Gallo had submitted to the Regional Board from April 2004
14 through April 2008. As noted in the Factual Background above, rather than the 215 pounds of
15 total Kjeldahl nitrogen calculated from the essentially freshwater measured by Gallo on October
16 18, 2008, applying the April 2009 sample results in a discharge of 28,290 pounds of total
17 Kjeldahl nitrogen. Likewise, applying the phosphorus levels measured in April 2009 results in a
18 calculated discharge of 9,898.8 pounds of phosphorous – not the 458 pounds claimed by Gallo
19 and adopted by the Regional Board.

20 Gallo’s representative misled the Regional Board about both the nature of the single
21 sample upon which they based the NMP as well as the number of samples available. As can be
22 heard on the hearing tape, Gallo’s consultant testified that the October 2008 sample was the
23 “most current sampling data and it actually coincided to be the highest number for wastewater.
24 There was other data from previous years but we used the most recent highest number to
25 calculate nutrient applications to that field.” The consultant further testified that “[t]he one
26 sample that we used to calculate the application on that field was the one sample that we had.”
27 And, just to underscore the point, he again stated “We prepared the plan with the data that we
28 had.” None of these statements are true. At the time of Gallo’s submission of its revised NMP
in July 2009, there was a more recent sample from April 28, 2009 that demonstrated

1 substantially higher levels of phosphorus and nitrogen in Gallo's wastewater. Exhibit B. And,
2 obviously, there was a lot more data from previous years that Gallo had and which should have
3 been incorporated into the development of the NMP. Exhibit B.

4 Gallo's consultant also misled the Regional Board about expected dilution in Pond 12A.
5 As he states on the hearing tape, "In the nutrient management plan we recommended additional
6 sampling once in the spring presumably when it's probably a more diluted sample and once in
7 the fall, your precipitation is less so the material in the pond should be more concentrated."
8 Gallo's consultant simply ignores the actual water use at the site. Over the course of the
9 summer, wastewater in Pond 2 goes down to essentially nothing. As Gallo's General Manager
10 testified later in the hearing in response to a Board member question, "is there any water that's
11 collected in the ponds during the dry season? [A.] There's a little, not much, there's the watering
12 troughs and the urine." When the supply of wastewater runs low, the facility irrigates with
13 freshwater from adjacent storm water ponds and groundwater from the Freshwater Pond. NMP,
14 Table 1 (majority of water in Pond 12A during late summer and early fall is freshwater, not
15 wastewater); Hearing Tape (Gallo's General Manager testified that "When there is insufficient
16 wastewater to irrigate we do supplement with freshwater"). According to the NMP, 68,293,018
17 gallons of freshwater is required for the oat field, compared to the maximum wastewater volume
18 of 13,560,000 gallons. NMP, p. 6 (estimating available N from freshwater applications, "based
19 on the total required freshwater requirement of 68,293,018 gallons"). Hence, dilution occurring
20 in Pond 12A is the opposite of what Gallo's consultant testified to the Board. Indeed, nothing
21 prevents Gallo from washing out Pond 12A with fresh groundwater just prior to a sampling event
22 in order to, at least on paper, bring down its reported nutrient discharges. Given the low levels
23 measured in the October 18, 2008 sample, and the lack of resemblance between those results and
24 wastewater from over 10,000 head of cattle, that appears to be what happened prior to that
25 sample.

26 The Regional Board accepted at face value the NMP's grossly understated and
27 unrepresentative nutrient levels. As a result, neither the NMP nor the Permit based on it are
28 supported by the weight of the evidence. As Dr. Byron Shaw noted in his comments on the
permit, the NMP's reliance on a single sample "is totally inadequate and in my opinion negates

1 the entire plan.” Byron Shaw Soil and Water Consulting, Byron H. Shaw, Ph.D., Comments
2 (attached as Exhibit C). The State Board should vacate the Permit and remand the Permit back
3 to the Regional Board with instructions to revise the NMP and Permit based on Gallo’s actual
4 wastewater quality.

5 Questions regarding Gallo’s monitoring procedures should be addressed with changes to
6 the Permit’s monitoring requirement. The Permit only requires Gallo to monitor wastewater
7 effluent discharged to the disposal field on a semi-annual basis. Permit, Attachment E, Table E-
8 2. The State Board should require the Regional Board to increase Gallo’s monitoring
9 requirements of Pond 12A during irrigation events in order to assure that Gallo’s calculations of
10 nutrient discharges are accurate and the permit’s nutrient limitation is enforceable. Ideally,
11 Gallo should monitor every irrigation event. Shaw Comment, p. 1 (“Proper protocol for
12 sampling would involve sampling from a well-mixed lagoon during each spreading event or
13 composite samples taken throughout the land application”). At a minimum, given the potential
14 for Gallo to dilute its wastewater around sampling events, Coastkeeper believes increasing the
15 monitoring to weekly when irrigation is occurring will assure accurate calculations of nutrient
16 loadings to the disposal field.

17 **C. The Regional Board’s Adoption of Gallo’s NMP is Contrary to the Weight**
18 **of the Evidence Because the Crop Yield Claimed in the NMP is not**
19 **Supported by any Evidence in the Record.**

20 Gallo also fails to substantiate the amount of nitrogen capable of being utilized by its oat
21 crop – another key value necessary to the establishment of a protective NMP. Nor does the
22 Permit’s monitoring program assure that actual crop yields will be reported in the future. The
23 State Board should require the Regional Board to gather evidence substantiating the crop yields
24 and nitrogen uptake estimates claimed by Gallo prior to approving the Permit and require yield
25 monitoring during the Permit’s term.

26 In its NMP, Gallo estimates that its 64-acre oat field “is capable of taking up 32,256
27 pounds of N annually.” NMP, p. 7. Gallo derives this nitrogen uptake amount by claiming it
28 triple crops the disposal field:

The field is triple cropped to oats with an approximate yield of 12 tons per acre.
California NRCS values for nitrogen (N) uptake of oats is 14 pounds of N per ton

1 of oats per crop, which correlates to 168 pounds of N per acre or 504 pounds per
2 acre of N annually, for the triple crop. Therefore, the triple-cropped field is
3 capable of taking up 32,256 pounds of N annually.

4 *Id.* As Dr. Shaw explained, “The yield data presented for the oat silage uses extremely high
5 yield numbers with no yield data to verify if these yields are ever achieved. My review of the
6 literature did not turn up any yield values anywhere near those claimed for this farm. There is
7 very little data available for triple crop oat forage.” Shaw Comments, p. 1 (Exhibit C). A review
8 of the administrative record confirms that, but for the conclusory statements included in the
9 NMP and a general statement made at the hearing by Gallo that triple cropping was “easy,” there
10 is no evidence of actual yields of silage from Gallo’s disposal field despite its use for many
11 years. As the Second Circuit Court of Appeal emphasizes, “not just any nutrient management
12 plan suffices under the [EPA] Rule.” Among other things, the NMP must address “the form,
13 source, amount, timing, and method of application of nutrients on each field to achieve realistic
14 production goals, while minimizing nitrogen and phosphorus movement to surface waters.
15 *Waterkeeper Alliance*, 2005 U.S. App. LEXIS 6533 at 32 (emphasis added). The future yield
16 estimates, unsupported by any contemporaneous yield monitoring from the disposal field, are not
17 supported by any evidence.

18 Nor does the permit assure that the Regional Board will have any objective yield data to
19 consider for its next review of the permit. See Permit, Attachment E, ¶X.F.3.a. The Permit does
20 not require Gallo to monitor and report on the actual yields from the disposal field during the
21 term of the Permit. Dr. Shaw noted this omission: “The only permit requirement relative to
22 crops is to report expected crop yields. Actual crop yield for each oat crop should be
23 documented to determine nutrient removal from the site. As the entire nutrient management plan
24 relies on the crop yield data and manure concentrations, both need to be documented with
25 verifiable sampling.” Shaw Comments, p. 2. Yield monitoring and verification is obviously
26 critical to the effectiveness of the NMP. The State Board should vacate and remand the Permit
27 in order for the Regional Board to obtain and weigh some evidence regarding the veracity of the
28 yield estimates contained in the NMP and to add an appropriate yield monitoring requirement to
the Permit.

1 **D. The Regional Board’s Adoption of Gallo’s NMP is Contrary to the Weight**
2 **of the Evidence Because the Estimated Wastewater Volumes Were Not the**
3 **Most Conservative Nor Based on the Preferred Method of Calculation – the**
4 **Dairy Planning Tool.**

5 The NMP claims to use the “conservative, higher end estimate” to determine the
6 maximum waste water production at the Facility to be 13.56 million gallons per year. NMP, p.
7 4. The NMP derived that number by applying Animal Waste Management Software (“AWS”).
8 *Id.* However, on the very same page of the NMP, it describes the actual “conservative, higher
9 end estimate” of 14.59 million gallons of wastewater per year calculated by applying the Dairy
10 Planning Tool. At the hearing, Gallo’s consultant conceded that the “preferred method in
11 California is the Dairy Planning Tool.” Hearing Tape (Gallo consultant); *id.* (“It’s the preferred
12 computer program. . .”); *see also id.* “Agricultural Waste Management tool” i.e., the AWS, is “a
13 more national tool”). Nothing in the NMP or the record explains why the lower of the two
14 numbers calculated is the proper volume calculation for this facility, especially where, according
15 to the NMP, the goal was to pick the “conservative, higher end estimate.” The State Board
16 should remand the Permit back to the Regional Board to gather in evidence justifying the NMP’s
17 selection of the less conservative number or recalculate the NMP estimates using the 14.59
18 million gallon calculation resulting from applying the Dairy Planning Tool.

19 **E. The Regional Board Cannot Delegate to its Staff the Final Approval of a**
20 **Groundwater Monitoring Plan that the Regional Board Included as a**
21 **Requirement of the Permit.**

22 The Permit requires Gallo to prepare their own groundwater monitoring requirements
23 subject only to the review and approval of Regional Board staff. Permit, § VI.C.4.f, Permit,
24 Attachment E, VIII.B. Because the groundwater monitoring plan is part of the Permit,
25 particularly the Permit’s waste discharge requirements, by delegating approval of the
26 groundwater monitoring plan to its staff, the Regional Board acted inconsistently with Water
27 Code § 13223. Section 13223(a) provides that “[e]ach regional board may delegate any of its
28 powers and duties vested in it by this division to its executive officer excepting only the
 following: (2) the issuance, modification, or revocation of any . . . waste discharge requirement.
 . . .” It is clear from the face of the proposed permit that the groundwater monitoring component

1 is a waste discharge requirement. See Permit, § VI.B (“The Discharger shall comply with the
2 Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this
3 Order”); Permit, §VI.C.4.f (“The Discharger shall prepare and implement a groundwater
4 monitoring plan pursuant to section VIII.B of the attached Monitoring and Reporting Plan
5 (Attachment E of this Order)”). See also 23 California Code of Regulations § 2230(a)
6 (“Monitoring Program Reports”) (“The results of any monitoring shall be reported to the
7 regional board *as specified in the waste discharge requirements. . .*”) (emphasis added).
8 Accordingly, the Regional Board had no authority to delegate the substantive terms of the
9 groundwater monitoring plan to its staff. Not only is this important for the Regional Board to
10 assure itself of the adequacy of discharger’s waste discharge requirements, it also is critical to the
11 public’s right to comment on amendments to permits and appear before the Regional Board to
12 present evidence and raise concerns.

13 The State Board should remand the Permit back to the Regional Board with instructions
14 for the groundwater monitoring plan to be presented to the Regional Board as a permit
15 amendment to be considered by the Regional Board at a Board meeting. Contrary to staff’s
16 statements at the Regional Board hearing on the Permit, such a reopening of the Permit to
17 consider the new groundwater monitoring plan (at that point presumably recommended by staff)
18 would not delay the implementation of other requirements in the Permit or substantially lengthen
19 the time by which the groundwater monitoring would be implemented by Gallo. Indeed, given
20 the other flaws in the Permit and NMP discussed above, the Regional Board should be
21 considering other curative amendments to the Permit in the same timeframe as its consideration
22 of the proposed groundwater monitoring plan.

23 **VI. PETITIONERS ARE AGGRIEVED.**

24 Petitioner Monterey Coastkeeper and its members are aggrieved by the Regional Board’s
25 decision to adopt the Permit relying on a faulty NMP and deferring the approval of critical
26 requirements to staff. The Monterey Coastkeeper works to tackle water pollution problems
27 through policy advocacy and legal tools to ensure that the interests of development, industry and
28 urban activity are kept in line with the environmental needs and wishes of the Monterey Bay and
Salinas Valley community it serves. The Otter Project and Monterey Coastkeeper have

1 thousands of members nationally, hundreds of whom live in the Monterey Bay watershed, who
2 depend upon clean local streams and shorelines in order to further their recreational, scientific,
3 economic and social interests. Monterey Bay and the Salinas River are home to two national
4 wildlife refuges and a national marine sanctuary. The Bay, the Salinas River National Refuge
5 and nearby Elkhorn Slough are world-reknowned for their wildlife viewing and recreational
6 opportunities. Since its inception, Coastkeeper has been active in championing for effective
7 government regulations, good public policy and an active community role in protecting
8 freshwater and marine waters alike. Coastkeeper's members are particularly concerned with
9 pollution related to agricultural operations in the Monterey Bay watershed. When not properly
10 managed, agricultural runoff poses significant threats to water quality. Nutrients, pesticides,
11 sediments and other pollutants are among the threats to both freshwater and marine ecosystems.
12 Coastkeeper is concerned that currently, monitoring of agricultural runoff, including animal
13 feedlot operations, is minimal and inadequate. Coastkeeper advocates for more effective
14 monitoring requirements to ensure that polluters are held accountable for their activities.

15 Coastkeeper's members live and work downstream of the Gallo facility and have a
16 beneficial interest in assuring that the facility is regulated by meaningful and effective
17 requirements to prevent and minimize pollution discharges to the Salinas River and downstream
18 waters. The Salinas River already is impaired by high levels of nutrients and other
19 agriculturally-related pollutants. Any additional or unmonitored pollution releases to that River
20 are detrimental to Coastkeeper and its members.

21 **VII. REQUESTED STATE BOARD ACTION.**

22 Petitioner requests the State Board to issue an order 1) finding that the Regional Board
23 abused its discretion by adopting the Permit without a valid NMP and without sufficient
24 monitoring requirements to assure compliance with the Permit, 2) finding that the Regional
25 Board improperly delegated the adoption of waste discharge requirements requiring groundwater
26 monitoring to its staff 3) vacating the Permit's approval and incorporation of the NMP and 4)
27 remanding the order to the Regional Board to obtain additional evidence; to revise, review and
28 adopt a proper NMP; to amend the Permit's monitoring requirements to assure implementation

1 and compliance with the Permit's requirements, and; to revise the Permit to require the Regional
2 Board rather than its staff to review, revise and adopt the Permit's groundwater monitoring plan.

3 **VIII. STATEMENT OF COPIES SENT TO THE REGIONAL BOARD AND**
4 **DISCHARGER.**

5 Copies of this petition are being sent to the Regional Board and the discharger at the
6 following addresses and, where known, e-mail addresses:

7 Roger Briggs, Executive Officer
8 California Regional Water
9 Quality Control Board
10 Central Coast Region
11 895 Aerovista Place, Suite 101
12 San Luis Obispo, CA 93401
13 rbriggs@waterboards.ca.gov

Roland R. Perez
Environmental Administrator
Joseph Gallo Farms
10561 West Highway 140
P.O. Box 775
Atwater, CA 95301-0775

11 Frances McChesney, Senior Staff Counsel
12 Office of Chief Counsel
13 State Water Resources Control Board
14 1001 I Street, 22nd Floor
15 Sacramento, CA 95814
16 fmcchesney@waterboards.ca.gov

15 **IX. ISSUES RAISED BEFORE REGIONAL BOARD.**

16 Petitioners certify that each of the issues set forth above were presented either in writing
17 or orally to the Regional Board prior to its February 4, 2010 decision.

18 Dated: March 5, 2009

19 Respectfully submitted,

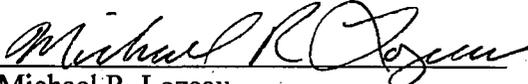

20 Michael R. Lozeau
21 Attorney for Petitioner Monterey Coastkeeper
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23
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25
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27
28

EXHIBIT A



Linda S. Adams
Secretary for
Environmental Protection

California Regional Water Quality Control Board

Central Coast Region

895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
(805) 549-3147 • Fax (805) 543-0397
www.waterboards.ca.gov/centralcoast



Arnold
Schwarzenegger
Governor

February 22, 2010

Roland Perez, M.S.
Environmental Administrator, Gallo Cattle Company
P.O. Box 775
Atwater, CA 95301-0775

Dear Mr. Perez:

ADOPTED NPDES PERMIT FOR GALLO CATTLE COMPANY, JOSEPH GALLO FARMS FEED LOT, MONTEREY COUNTY

Enclosed please find Order No. R3-2010-0004 (National Pollutant Discharge Elimination System Permit No. CA0050601), which includes Monitoring and Reporting Program No. R3-2010-0004. Order No. R3-2010-0004 was adopted by the Regional Water Quality Control Board on February 4, 2010, and is effective March 1, 2010. You may also locate a copy of Order No. R3-2010-0004 on our web site:

www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/index.shtml

Regarding Order No. R3-2010-0004, please note the following:

1. By June 4, 2010, the Gallo Cattle Company must submit¹,

“... a groundwater monitoring plan, which proposes on-going monitoring to assess the migration of pollutants from wastewater holding ponds and land application areas to shallow groundwater. The plan shall include installation of an appropriate number of upgradient and downgradient monitoring wells to characterize background conditions of groundwater quality and to identify the presence of pollutants in shallow groundwater attributable to migration from wastewater holding ponds and land application areas. Monitoring wells shall be located based on knowledge of local groundwater conditions (depth, direction of flow, etc). The plan shall identify pollutants or pollutant parameters, which will be appropriate indicators of wastewater originating at the facility and shall include nitrate and nitrite-nitrogen and coliform bacteria. In addition to groundwater monitoring, the plan shall include provisions for wastewater holding pond, seepage rate determinations on a periodic basis (at least two such determinations shall be conducted (on different ponds) every five years until all ponds have been so characterized. Groundwater monitoring results and seepage rate determinations shall be reported

¹ Monitoring and Reporting Program No. R3-2010-0004, Section VIII.B. (page E-7 of Order No. R3-2010-0004)



annually to the Regional Water Board and shall be compared with applicable groundwater limitations established by section V. B of the Order.”

While Order No. R3-2010-0004 specifically mentioned groundwater monitoring wells, vadose zone lysimeters can serve as useful components of a scheme to assess the migration of pollutants through soils underlying the feedlot. Also, please a) identify all available existing wells within one mile of your facility, b) determine if any data are available from those wells, and c) if those wells are available for sampling.

2. All Nutrient Management Plan (Order No. R3-2010-0004, Attachment H) recommendations must be implemented.

If you have any questions, please call **Tom Kukol at (805) 549-3689** or Burton Chadwick at (805) 542-4786.

Sincerely,



Roger W. Briggs
Executive Officer

Enclosure: Order No. R3-2010-0004

Cc: Gallo Feed Lot Interested Parties List (without enclosure)

TJK
102-01
Gallo

S:\NPDES\NPDES Facilities\Monterey Co\Joseph Gallo Farms Feed Lot, Gonzales\Permit Renewal 2009\Transmittal Letter.doc





Alan C. Lloyd, Ph.D.
Agency Secretary

California Regional Water Quality Control Board

Central Coast Region

895 Aerovista Place, Suite 101, San Luis Obispo, California 93401
Phone (805) 549-3147 • Fax (805) 543-0397
<http://www.waterboards.ca.gov/centralcoast/>



Arnold Schwarzenegger
Governor

ORDER NO. R3-2010-0004
NPDES NO. CA0050601

WASTE DISCHARGE REQUIREMENTS FOR THE GALLO CATTLE COMPANY JOSEPH GALLO FARMS FEED LOT

Table 1. Discharger Information

Discharger	Gallo Cattle Company
Name of Facility	Joseph Gallo Farms Feed Lot
Facility Address	31701 Johnson Canyon Road
	Gonzales, CA 93926
	Monterey County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

Discharges by the Gallo Cattle Company from the discharge point identified below are subject to waste discharge requirements as set forth in this Order.

Table 2. Discharge Location

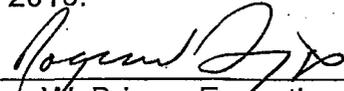
Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Wastewater from Concentrated Animal (Heifer) Operation	36° 36' 55.8" N	121° 53' 41.0" W	Land Application
002	Site Wastewater Discharged from Pond 2 during the 25 Year, 24-Hour Storm Event	—	—	Johnson Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	February 4, 2010
This Order shall become effective on:	March 1, 2010
This Order shall expire on:	March 1, 2015
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	<u>180 days prior to the Order expiration date</u>

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Roger Briggs Executive Officer, do hereby certify that this Order, with all attachments, is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coastal Region, on February 4, 2010.



Roger W. Briggs, Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Gallo Cattle Company
Name of Facility	Joseph Gallo Farms Feed Lot
Facility Address	31701 Johnson Canyon Road
	Gonzales, California 93926
	Monterey County
Facility Contact, Title, and Phone	Roland Perez, M.S., Environmental Administrator, 209-394-7984
Mailing Address	10561 West Highway 140, PO Box 775, Atwater, California 95301
Type of Facility	CAFO (concentrated animal feeding operation)
Facility Design Flow	The facility is designed to contain storm runoff up to the 25-year, 24-hour event, and thereby preclude discharges to surface water.

II. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (hereinafter the Regional Water Board), finds:

A. Background. The Gallo Cattle Company (hereinafter the Discharger) is currently discharging pursuant to Order No. R3-2003-0126 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0050601. The Discharger submitted a Report of Waste Discharge, dated August 19, 2008, and applied to renew its NPDES permit to discharge wastewater and contaminated storm water onsite via spray irrigation to 64 acres of oat fields, which are regularly harvested for the exclusive use of feeding cattle onsite. The Report of Waste Discharge was deemed complete on July 27, 2009, following receipt of the Discharger's Nutrient Management Plan, which was updated to adhere to the requirements of the revised NPDES regulations and effluent limitations guidelines for CAFOs (effective on December 22, 2008).

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. The Discharger owns and operates a concentrated animal feeding operation (CAFO) that contains and feeds up to 30,000 head of cattle on 101 acres of a 373.2-acre parcel. The remaining 272 acres are used for dry storage, manure composting, runoff containment ponding, and irrigated croplands. The runoff containment ponding/treatment system consists of nine ponds — three wastewater holding ponds, three storm water retention ponds, and three irrigation holding ponds. Wastewater disposal occurs by evaporation from the wastewater holding ponds and the irrigation holding ponds. Additional wastewater disposal occurs on 64 acres of spray irrigated, regularly harvested, oat fields. The Salinas River, a water of the State, is located 3 miles southwest of the facility. The Salinas River is in the Salinas River watershed. Johnson Creek, a tributary to the Salinas River, flows east to west, 200 to 1,000 feet south of the facility. Attachment B provides a location map of the area around the facility. Attachment C provides a facility map showing pertinent structures and facilities.

C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information, including a site visit on September 25, 2008. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into

this Order and constitutes part of the Findings for this Order. Attachments A through E are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

F. Technology-Based Effluent Limitations. CWA Section 301 (b) and USEPA's NPDES regulations at 40 CFR 122.44 require that permits include, at a minimum, conditions meeting applicable technology-based requirements and any more stringent effluent limitations necessary to meet applicable water quality standards. Discharges authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitation Guidelines and Standards for the CAFO Point Source Category established at 40 CFR Part 412 and Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of development of technology-based effluent limitations is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations. CWA Section 301 (b) and NPDES regulations at 40 CFR 122.44 (d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

NPDES regulations at 40 CFR 122.44 (d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential is established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304 (a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed State criterion or policy interpreting the State's narrative criterion, supplemented with other relevant information, as provided at 40 CFR 122.44 (d)(1)(vi).

H. Water Quality Control Plans. The Regional Water Board has adopted a *Water Quality Control Plan for the Central Coast Region* (the Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

In accordance with Chapter 2 of the Basin Plan, surface water bodies that do not have beneficial uses specifically identified by the Basin Plan (e.g., Johnson Creek) are assigned the beneficial uses of:

- Municipal and domestic supply

- Protection of both recreation and aquatic life.

Requirements of this Order implement the Basin Plan.

- I. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants that are applicable to discharges from Gallo Cattle Company facility.
- J. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- K. Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules or interim effluent limitations.
- L. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and tribal water quality standards (WQS) become effective for CWA purposes [65 Fed. Reg. 24641 (April 27, 2000) (codified at 40 CFR 131.21)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000 must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations and/or conditions. The Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality based requirements have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to NPDES regulations at 40 CFR 131.21 (c) (1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

N. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that the existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements and incorporates by reference both the State and federal antidegradation policies. As discussed in sections III.C.5 and IV.D.2 of the Fact Sheet, the provisions of this Order are consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

O. Anti-Backsliding Requirements. CWA sections 402 (o) (2) and 303 (d) (4) and NPDES regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

P. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

Q. Monitoring and Reporting. NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 also authorize the Regional Water Board to require technical

and monitoring reports. The Monitoring and Reporting Program, provided as Attachment E to the Order, establishes monitoring and reporting requirements to implement federal and State requirements.

- R. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable pursuant to 40 CFR 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- S. Provisions and Requirements Implementing State Law.** The provisions/ requirements in subsection IV. B, IV. C, and V.B of this Order are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- T. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order
- U. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

- A. Discharge of wastewater to areas other than land application areas identified by the facility's Nutrient Management Plan is prohibited unless approved by the Executive Officer.
- B. Land application of any wastes other than cattle feedlot wastewater and storm water runoff to the Discharger's irrigation/land disposal area is prohibited, except as clarified in section IV. A. 2 of the Fact Sheet.
- C. Discharge of any wastes including overflow, bypass, seepage, and overspray, from transport, treatment, storage, or disposal systems to adjacent drainage ways or adjacent properties, except as authorized pursuant to section IV. A. 1. B, is prohibited.
- D. Animals within concentrated areas shall be prohibited from entering surface waters or tributaries thereof.
- E. Mortalities must not be placed in any liquid manure or process wastewater system and must be handled in a way to prevent the discharge of pollutants to surface water.

- F. Application of wastewater to land shall be managed to minimize percolation to groundwater.
- G. Application of wastewater to land for other than nutrient recycling and/or crop production is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Final Effluent Limitations

- a. In accordance with site-specific nutrient management practices described by the Discharger's Nutrient Management Plan (NMP), available nitrogen from wastewater shall not be land applied at a rate greater than 250 pounds N per acre per year.
- b. There shall be no discharge of manure, litter, or process wastewater into waters of the United States or into surface waters of the State from the production area. Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into waters of the United States or into surface waters of the State if the production area is designed, constructed, operated, and maintained to contain all manure, litter, process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm event, and if the facility is, prior to the overflow, practicing the measures and record keeping requirements established at 40 CFR 412.37 (a) and (b). Any such discharge resulting from a 25-year, 24-hour storm event shall not cause exceedances of applicable receiving water limitations established by section V of this Order.
- c. The Discharger shall maintain, update as necessary, and implement a Nutrient Management Plan (NMP) in accordance with section VI. C. 3 of this Order.

B. Land Discharge Specifications

This section of the standardized permit template is not applicable.

C. Reclamation Specifications

This section of the standardized permit template is not applicable.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. Discharges and activities at the concentrated animal operation shall not cause the following in the Salinas River or Johnson Creek:

1. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. Coloration attributable to materials of waste origin shall not be greater than 15 units or 10 percent above natural background color, whichever is greater.
2. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.
3. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
4. Waters shall not contain suspended material in concentrations that causes nuisance or adversely affects beneficial uses.
5. Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.
6. Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.
7. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
8. The suspended sediment load and suspended sediment discharge rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
9. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increase in turbidity attributable to controllable water quality factors shall not exceed the following limits.
 - a. Where natural turbidity is between 0 and 50 Jackson Turbidity Units (JTU), increases shall not exceed 20 percent.
 - b. Where natural turbidity is between 50 and 100 JTU, increases shall not exceed 10 JTU.
 - c. Where natural turbidity is greater than 100 JTU, increases shall not exceed 10 percent.
10. The pH value shall not be depressed below 7.0 nor raised above 8.5. The change in normal ambient pH levels shall not exceed 0.5 in fresh water.

11. Dissolved oxygen concentrations in receiving waters shall not be reduced below 5.0 mg/L at any time.
12. Natural temperature of receiving waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.
13. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality conditions shall not be less than that for the same water body in areas unaffected by the waste discharge.
14. The discharge of wastes shall not cause concentrations of unionized ammonia (NH₃) to exceed 0.025 mg/L (as N) in the receiving water.
15. No individual pesticide or combination of pesticides shall reach concentrations that adversely affect the beneficial uses of the receiving water. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life. For waters where existing concentrations are presently nondetectable or where beneficial uses would be impaired by concentrations in excess of nondetectable levels, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods as prescribed in *Standard Methods for the Examination of Water and Wastewater*, latest edition, or other equivalent methods approved by the Executive Officer.
16. Waters shall not contain organic substances in concentrations greater than the following.

Methylene Blue Activated Substances	0.2 mg/L
Total Phenols	0.1 mg/L
PCBs	0.3 µg/L
Phthalate Esters	0.002 µg/L
17. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. In no circumstance shall receiving waters contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) for radioactivity presented in Table 4 of Title 22 California Code of Regulations, Division 4, Chapter 15, Article 5.
18. Receiving waters shall not contain concentrations of chemical constituents in excess of the primary maximum contaminant levels (MCLs) specified for drinking water in Table 64431-A (Primary MCLs for Inorganic Chemicals) and Table 64444-A (Primary MCLs for Organic Chemicals) of Title 22 California Code of Regulations, Division 4, Chapter 15.

19. Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 per 100 mL.
20. The following concentrations of metals shall not be exceeded for the protection of aquatic life.

Parameter	Receiving Water Hardness	
	> 100 mg/L CaCO ₃	< 100 mg/L CaCO ₃
Cadmium	0.03 mg/L	0.004 mg/L
Chromium	0.05 mg/L	0.05 mg/L
Copper	0.03 mg/L	0.01 mg/L
Lead	0.03 mg/L	0.03 mg/L
Mercury	0.0002 mg/L	0.0002 mg/L
Nickel	0.4 mg/L	0.1 mg/L
Zinc	0.2 mg/L	0.004 mg/L

B. Groundwater Limitations

Activities, including the land application of wastewater, at the concentrated animal feeding operation shall not cause exceedances/deviation from the following water quality objectives for groundwater or degrade downstream or downgradient beneficial uses established by the Basin Plan:

1. The discharge shall not cause groundwater to exceed the following limitations as measured in groundwater downgradient of the disposal area:

Parameter	Limitation
TDS	1500 mg/L
Sodium	250 mg/L
Chloride	250 mg/L
Sulfate	600 mg/L
Boron	0.5 mg/L
Nitrogen	1.0 mg/L

These values are based on specific objectives for the adjacent 180-foot aquifer of the Salinas River sub-basin taken from the Basin Plan.

2. Groundwater shall not contain taste or odor producing substances in concentrations that adversely affect beneficial uses.
3. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life; or result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

4. The median concentration of coliform organisms in groundwater, over any seven-day period, shall be less than 2.2 organisms per 100 milliliters.
5. Groundwater shall not contain nitrate concentrations exceeding 10 mg/L N (45 mg/L NO₃).
6. Activities, including land application of wastewater, at the site shall not cause groundwater pH to deviate from the range of 6.5 – 8.3.
7. Groundwater shall not contain concentrations of chemical constituents in excess of the primary maximum contaminant levels (MCLs) specified for drinking water in Table 64431-A (Primary MCLs for Inorganic Chemicals) and Table 64444-A (Primary MCLs for Organic Chemicals) of Title 22 California Code of Regulations, Division 4, Chapter 15.
8. Groundwater shall not contain concentrations of chemical constituents in amounts that adversely affect the agricultural beneficial uses of irrigation and livestock watering. Interpretation of adverse effect to agricultural beneficial uses shall be based on the numeric guidelines and limitations established by Tables 3-3 and 3-4 of the Basin Plan.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order. All monitoring shall be conducted according to 40 CFR Part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*.

C. Special Provisions

1. Reopener Provisions

- a. This permit may be reopened and modified in accordance with NPDES regulations at 40 CFR 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA approved, new, State water quality objective.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

This section of the standardized permit template is not applicable to this facility.

3. Best Management Practices and Pollution Prevention

The Discharger shall maintain, update as necessary, and implement a Nutrient Management Plan (NMP). In accordance with NPDES regulations at 40 CFR 122.42 (e) (1) the NMP shall include best management practices (BMPs), limitations, and standards necessary to meet applicable requirements of the *Effluent Limitations Guidelines for the CAFO Point Source Category* at 40 CFR Part 412 (specifically, that portion of the *Effluent Limitations Guidelines*, which establish BMPs for the land application of manure, litter, and process wastewater at 40 CFR 412.4). The NMP must also address nine specific requirements established by NPDES regulations at 40 CFR 122.42 (e) (1) (i – ix).

A copy of the Discharger’s site-specific NMP shall be maintained onsite and shall be available to the Regional Water Board upon request.

When changes are made to the site-specific NMP, the Discharger shall provide to the Regional Water Board the most current version of its NMP and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of 40 CFR 122.42 (e)(5)(i)(B) and (e)(5)(ii)(D) are not required for this submittal.

a. Effluent Limitations Guidelines. Applicable requirements of the Effluent Limitations Guidelines, which shall be addressed by the NMP, are summarized by Table 5, below.

Table 5. Effluent Limitations Guidelines Summary

	Requirement	Reference
1	For the control of discharges from land application areas, the Discharger shall develop and implement BMPs required by 40 CFR 412.4 and shall maintain records required by 40 CFR 412.37 (c).	40 CFR 412.31 (c)
2	The discharger shall land apply manure, litter, and process wastewater in accordance with the following practices.	40 CFR 412.4 (c)
	(1) The NMP shall incorporate the requirements of (2) – (5), below, based on a field specific assessment of the potential for nitrogen and phosphorous transport from the field, and shall address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorous movement to surface waters.	40 CFR 412.4 (c) (1)
	(2) Application rates for manure, litter, and other process wastewater shall minimize phosphorus and nitrogen transport from the field to surface waters and shall be consistent with the National Resource Conservation Service (NRCS) Practice Standard for Nutrient Management, Code 590; and with technical standards established by the State (State standards are not in place at the time this Order is being written).	40 CFR 412.4 (c) (2)
	(3) Manure and/or wastewater must be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil analyzed a minimum of once every five years for phosphorus content. The results of these analyses shall be used in determining application rates for manure, litter, and other process wastewater.	40 CFR 412.4 (c) (3)

	(4) The operator must periodically inspect equipment used for land application of manure, litter, or process wastewater.	40 CFR 412.4 (c) (4)
	(5) Unless the Discharger exercises one of the compliance alternatives provided for in i or ii, below, manure, litter, and process wastewater may not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface water. (i) As an alternative, the Discharger may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited. (ii) As an alternative, the Discharger may demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.	40 CFR 412.4 (c) (5)
3	Each CAFO must maintain on-site a copy of its site-specific NMP. Each CAFO must maintain on-site for a period of five years from the date they are created a complete copy of the information required by 40 CFR 412.4 and 40 CFR 122.42(e)(1)(ix) and the records specified in 40 CFR 412.37 (c)(1 - 10), below. These records must be available to the Regional Water Board upon request. (1) Expected crop yields; (2) The date(s) manure, litter, or process waste water is applied to each field; (3) Weather conditions at time of application and for 24 hours prior to and following application; (4) Test methods used to sample and analyze manure, litter, process waste water, and soil; (5) Results from manure, litter, process waste water, and soil sampling, (6) Explanation of the basis for determining manure application rates, as provided in the technical standards established by the Regional Water Board. (7) Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, on process wastewater; (8) Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied; (9) The method used to apply the manure, litter, or process wastewater; (10) Date(s) of manure application equipment inspection.	40 CFR 412.37 (c).

b. 40 CFR 122.42 (e) (1) (i – ix). The nine specific requirements established by NPDES regulations at 40 CFR 122.42 (e) (1) (i – ix), which shall be addressed by the NMP are summarized in Table 6, below.

Table 6. Nine Specific Requirements of 40 CFR 122.42 (e) (1)

	Requirement	Reference
1	Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.	40 CFR 122.42 (e) (1) (i)
2	Ensure proper management of mortalities to ensure that they are not	40 CFR 122.42 (e) (1) (ii)

	disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities.	
3	Ensure that clean water is diverted from the production area.	40 CFR 122.42 (e) (1) (iii)
4	Prevent direct contact of concentrated animals with waters of the U.S.	40 CFR 122.42 (e) (1) (iv)
5	Ensure that chemicals and other contaminants handled on site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.	40 CFR 122.42 (e) (1) (v)
6	Identify site-specific conservation practices to be implemented, including appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the U.S.	40 CFR 122.42 (e) (1) (vi)
7	Identify protocols for appropriate testing of manure, litter, process wastewater, and soil.	40 CFR 122.42 (e) (1) (vii)
8	Establish protocols to land apply manure in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater. The NMP shall identify fields available for land application and any timing limitations for those fields, and shall express application rates using one of the two following approaches, (i) or (ii) below.	40 CFR 122.42 (e) (1) (viii)
	<p>(i) Linear Approach (an approach that expresses rates of application as pounds of nitrogen and phosphorus). The Discharger shall adhere to the procedure, summarized here, from 40 CFR 122.42 (e) (5) (i).</p> <p>(A) NMP terms must include maximum application rates for each year of permit coverage - for each crop identified in the NMP, expressed as pounds per acre and pounds per year, for each field to be used for land application. The NMP must identify certain factors necessary to determine application rates, including: the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses of a field (e.g., pasture or fallow field); the realistic yield goal for each crop or use identified for each field; the nitrogen and phosphorus recommendations from sources approved by the Regional Water Board for each crop or use identified for each field; credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; and accounting for all other additions of plant available nitrogen and phosphorus to the field. In addition, NMP terms must include the form and source of manure, litter, and process wastewater to be land-applied; the timing and method of land application; and the methodology by which the NMP accounts for the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.</p> <p>(B) At least one time each year, the Discharger shall calculate the maximum amount of manure, litter, and process wastewater to be land applied using the results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months.</p>	40 CFR 122.42 (e) (5) (i)
	(ii) Narrative Approach (an approach that expresses rates of application as a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process	40 CFR 122.42 (e) (5) (ii)

	<p>wastewater to be land applied). The Discharger shall adhere to the procedure, summarized here, from 40 CFR 122.42 (e) (5) (ii).</p> <p>(A) NMP terms must include maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, expressed in pounds per acre for each field. The NMP must identify certain factors necessary to determine application rates, including: the outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field; the crops to be planted in each field or any other uses (e.g., pasture or fallow fields), including alternative crops identified in accordance with 40 CFR 122.42 (e)(5)(ii)(B); the realistic yield goal for each crop or use identified for each field; and the nitrogen and phosphorus recommendations from sources from sources approved by the Regional Water Board for each crop or use identified for each field. In addition, NMP terms must describe the methodology by which the NMP accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied: results of soil tests conducted in accordance with protocols identified in the NMP, as required by 40 CFR 122.42 (e)(1)(vii); credits for all nitrogen in the field that will be plant available; the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; the form and source of manure, litter, and process wastewater; the timing and method of land application; and volatilization of nitrogen and mineralization of organic nitrogen.</p> <p>(B) The NMP may identify alternative crops that are not in the planned crop rotation. When alternative crops are identified in the NMP, such crops shall be listed by field in addition to the crops identified in the planned crop rotation for that field, and the NMP shall include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources approved by the Regional Water Board for each crop. Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied must be determined in accordance with the methodology described at 40 CFR 122.42 (e)(5)(ii)(A).</p> <p>(C) If the narrative approach is used, the following projections shall be included in the NMP but will not be incorporated into the terms of this Order: planned crop rotations for each field for the period of permit coverage; the projected amount of manure, litter, or process wastewater to be applied; projected credits for all nitrogen in the field that will be plant available; consideration of multi-year phosphorus application; accounting for all other additions of plant available nitrogen and phosphorus to the field; and the predicted form, source, and method of application of manure, litter, and process wastewater for each crop. Timing of application for each field, insofar as it concerns the calculation of rates of application, shall not be incorporated into the terms of this Order.</p> <p>(D) At least one time each year, CAFOs using the narrative approach shall calculate maximum amounts of manure, litter, and process wastewater to be land applied using the methodology established at 40 CFR 122.42 (e)(5)(ii)(A) before land applying</p>	
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	<p>manure, litter, and process wastewater and must rely on the following data (1 and 2):</p> <p>(1) A field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available, consistent with the methodology established by 40 CFR 122.42 (e)(5)(ii)(A), and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Regional Water Board; and</p> <p>(2) The results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.</p>	
9	Identify specific records that will be maintained to document the implementation and management of the minimum elements described above from 40 CFR 122.42 (e) (1) (i - viii).	40 CFR 122.42 (e) (1) (ix)

c. All NMP recommendations must be implemented.

4. Additional Construction, Operation and Maintenance Specifications

- a. Operation of CAFOs and the treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050 of Division 7 of the California Water Code.
- b. The determination of the necessary storage volume for wastewater facilities shall reflect the maximum length of time anticipated between emptying events. The design storage volume must reflect manure, wastewater, and other wastes accumulated during the storage period; normal precipitation less evaporation on the surface area during the entire storage period; normal runoff from the facility's drainage area during the storage period; 25-year, 24- hour precipitation on the surface of the wastewater facilities; 25-year, 24-hour runoff from the facility's drainage area; residual solids after liquids have been removed; and necessary freeboard.) Facilities shall be protected from any washout or erosion of wastes or covering material, and from any inundation which could occur as a result of floods having a predicted frequency of once in 25 years.
- c. All new roofs, buildings, and non-manured areas located on the CAFO shall be constructed or otherwise designed so that clean rainwater is diverted away from the sources of animal manure and waste containment facilities unless such containment facilities are adequate to contain the increase in contaminated storm water.
- d. The corrals and pens shall be designed to convey all water that has contacted animal wastes to the wastewater holding and disposal system, and to minimize the infiltration of water into the underlying soils.

- e. Wastewater holding ponds shall be lined or underlain by soils that contain at least 10 percent clay and not more than 10 percent gravel, or by artificial materials of equivalent impermeability.
- f. The Discharger shall prepare and implement a groundwater monitoring plan pursuant to section VIII. B of the attached Monitoring and Reporting Plan (Attachment E of this Order).
- g. Wastewater containment ponds that do not overflow to other ponds shall have sufficient freeboard, no less than 2 feet (measured vertically, from the water surface up to the point on the surrounding berm or dike having the lowest elevation), and shall be designed and constructed to prevent overtopping as a result of windy storm conditions. Lesser freeboard, no less than 1 foot, may be approved by the Executive Officer if documented by a registered civil engineer that structural integrity and required capacity will not be compromised with proposed freeboard.
- h. No new containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures.
- i. Ponds shall be managed to prevent breeding of mosquitoes and other vectors.
 - (1) An erosion control program shall ensure small coves and irregularities are not created around the perimeter of the water surface.
 - (2) Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - (3) Dead algae, vegetation, and debris shall not accumulate on the water surface.
- j. Open surface impoundments shall have depth markers which indicate the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.
- k. Manure and feed storage areas shall be designed and managed to direct leachate and runoff to the wastewater holding and disposal system and minimize infiltration of water to underlying soils.
- l. Routine inspections of the production area shall be conducted and shall include: weekly inspections of storm water diversion devices, runoff diversion structures, and devices channeling storm water to wastewater and manure containment structures; daily inspections of water lines, including drinking and cooling water lines; and weekly inspections of manure, litter, and process wastewater impoundments, including the levels in liquid impoundments. [40 CFR 412.37 (a) (1)] Deficiencies found as a result of inspections shall be corrected as soon as possible. [40 CFR 412.37 (a) (3)] The Discharger shall record results of

inspections and provide a summary of results with each semi-annual monitoring report.

- m. Salt in animal rations shall be limited to the amount required to maintain animal health and optimum production.
- n. Land application of wastewater shall be managed to minimize its percolation to groundwater.
- o. Wastewater shall not be land applied within 100 feet of an existing water supply well or of any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface water.
- p. Lands receiving dry manure shall be managed to minimize erosion and preclude storm water runoff to surface water. Applied manure shall be incorporated into surface soils soon after manure application.
- q. All storm water contacting or contaminated by concentrated animal areas shall be contained and disposed of onsite, except as authorized by Discharge Prohibition III. C.
- r. The Discharger shall maintain a minimum, 120-day wastewater storage capacity of 13.56 million gallons to accommodate normal precipitation and runoff and direct precipitation for the 25-year, 24-hour rainfall event.
- s. In the event that one of the facility's storage ponds reaches capacity, water/wastewater shall be land applied in accordance with the Discharger's NMP or pumped to a pond that has storage capacity.
- t. Mortalities shall be placed in a designated, fenced and secure area, where runoff is directed to a wastewater storage pond, until mortalities are removed from the site.
- u. The site shall be managed to ensure that clean "run on" water is diverted from the production area, in a manner as described by the NMP (Ponds 12B, 13N and 13S at the east end of the site serve as retention ponds to keep clean up-gradient runoff from entering the production area).
- v. Chemicals and chemical contaminants, including petroleum products, handled onsite shall not be placed or disposed of within any onsite manure, litter, process wastewater storage or treatment system. Chemicals and chemical contaminants handled on site shall be managed to prevent spills to onsite manure, litter, and process wastewater storage or treatment systems.
- w. The application rates of nutrient to the land application area shall take into account current soil test results, realistic yield goals, and management capabilities.

- x. Planned application rates shall match nitrogen availability with plant uptake characteristics as closely as possible, taking into account the timing of nutrient application(s) in order to minimize leaching and atmospheric losses.
- y. The Discharger shall implement, as appropriate, the conservation practices established by NRCS Conservation Practice Standard Code 590 for Nutrient Management (CPS 590) and by NRCS Conservation Practice Standard Code 449 for Irrigation Water Management (CPS 449).
- z. Nutrient materials shall be applied to land uniformly through proper use of irrigation equipment.
- aa. The Discharger shall adhere to rates of application and timing limitations established by the NMP to avoid over-irrigation.
- ab. The Discharger shall land apply manure, litter, and process wastewater in accordance with the following site-specific nutrient management practices.
 - Wastewater shall be land applied to Field 1 as identified by the NMP.
 - Nitrogen shall not be applied to land during periods of soil saturation.
 - Nitrogen shall be land applied in a manner to achieve maximum crop utilization.
 - As described by Appendix C of the NMP, Field 1 shall be triple-cropped (3 plantings) in oats in each year covered by the NMP.
 - Wastewater shall be land applied via a sprinkler irrigation system in accordance with Table 1 (Crop Watering Requirements for Oats) and Appendix C of the NMP.

5. Special Provisions for Municipal Facilities (POTWs Only)

This section of the standardized permit template is not applicable.

6. Compliance Schedules

This section of the standardized permit template is not applicable.

7. Transfer of Waste

Prior to transferring manure, litter, or process wastewater to other persons, the Discharger shall provide the recipient of the manure, litter, or process wastewater with the most current nutrient analysis, which must conform to the requirements of 40 CFR Part 412. The Discharger shall retain, for 5 years, records of the date,

recipient name and address, and approximate amount of manure, litter, or process wastewater transferred.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General

If applicable, compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data

If applicable, when determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

ATTACHMENT A – DEFINITIONS

Agricultural Material

Material of plant or animal origin, which result from the production and processing of farm, ranch, agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural products, including manures, orchard and vineyard prunings, and crop residues.

Animal Feeding Operation

A lot or facility (other than an aquatic animal production facility) where the following conditions are met: (i) animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

Application

The EPA standard national forms for seeking coverage under for an NPDES permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions [e.g. for NPDES general permits, a written "notice of intent" pursuant to section 122.28; for NPDES individual permits, Form 1 and 2B pursuant to section 122.1(d)].

Arithmetic Mean (μ)

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

$$\text{Arithmetic mean} = \mu = \Sigma x / n$$

where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Concentrated Animal Feeding operation (CAFO)

An animal feeding operation which is defined as a Large CAFO or Medium CAFO by section 122.23 (4) and (6), or that is designated as a CAFO.

Carcinogenic

Pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays

Enclosed Bays means indentations along the coast that enclose an area of oceanic water