

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

COLORADO RIVER BASIN REGION

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ORDER R7-2021-0029

NPDES NO. CAG017001



GENERAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE COLORADO RIVER BASIN REGION

The following Dischargers are subject to Waste Discharge Requirements (WDRs) as set forth in this Order:

Table 1. Discharger Information

Discharger	Persons discharging wastes from a Concentrated Animal Feeding Operation or related facility in any manner that may affect the quality of the waters of the Colorado River Basin Region are hereafter referred to as "Discharger" and are subject to the terms and conditions of this Order.
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Table 2. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	November 2, 2021
This Order shall become effective on:	April 1, 2022
This Order shall expire on:	March 31, 2027

IT IS HEREBY ORDERED that Order R7-2013-0800 is rescinded upon the effective date of this Order (R7-2021-0029) except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action does not prevent the California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board) from taking enforcement action for violations of the previous Order. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified, the Discharger shall comply with the analogous portions of the previous Order, which shall remain in effect for all purposes during the pendency of the stay.

I, Paula Rasmussen, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on **the Date indicated above**.

Original Signed By

Paula Rasmussen, Executive Officer

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I. OVERVIEW

The California Regional Water Quality Control Board, Colorado River Basin Region (Colorado River Basin Water Board) protects water quality by regulating the discharge of wastes, including nutrients, salts, pathogens, and other constituents of manure that is produced by animals that are kept in confinement. This Order is issued pursuant to section 402 of the federal Clean Water Act and implementing regulations adopted by the United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). This Order serves as a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from Concentrated Animal Feeding Operations (CAFOs) as well as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

The NPDES regulations define animal feeding operations (AFOs) as operations where 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 where vegetation is not sustained in the confinement area during the normal growing season. (40 C.F.R. § 122.23(b)(1).) As of the date of this General Permit's issuance, the AFOs in the Colorado River Basin Region include approximately 30 dairies, feedlots, and heifer ranches that are all located in the Imperial Valley.

The NPDES regulations define a CAFO as any AFO that either meets a certain animal population threshold, or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. (40 C.F.R. § 122.23(b)(2).) All but one of the AFOs in the Colorado River Basin Region meet the federal regulatory size thresholds to be defined as Large CAFOs in 40 Code of Federal Regulations (C.F.R) section 122.23(b)(4). The Clean Water Act provides that all CAFOs are point sources, and thus discharges from CAFOs are subject to NPDES permitting requirements. CAFOs in the Colorado River Basin Region that discharge wastes to waters of the U.S. are subject to the requirements of this Order.

II. COVERAGE REQUIREMENTS

A. Coverage Eligibility

1. This Order applies to owners or operators¹ (Dischargers) of any AFO (40 C.F.R. § 122.23(b)(1)) within the Colorado River Basin Region (as defined in Water Code section 13200(i)) that also meets the regulatory definition in 40 Code of Federal Regulations section 122.23(b) of a Large CAFO, Medium CAFO, or Small CAFO.
2. This applies to all animal sectors within the CAFO point source category for existing sources.

¹ Because this Order regulates both landowners and operators, but does not require enrollment of both parties, the provisions of this Order require that enrollee provide notification to the non-enrollee responsible party of enrollment under this Order.

3. For AFOs that do not meet the definition of a CAFO, the Colorado River Basin Water Board's Executive Officer or the USEPA Regional Administrator may designate the facility a CAFO upon determining that a facility is a significant contributor of pollutants to waters of the U.S. In making this designation, the Colorado River Basin Water Board will conduct a site inspection and consider the following factors:
 - i. The size of the AFO and the amount of wastes reaching waters of the U.S.;
 - ii. The location of the AFO relative to waters of the U.S.;
 - iii. The means of conveyance of animal wastes and process waters into waters of the U.S.;
 - iv. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes, manure, and process waters into waters of the U.S.; and
 - v. Other relevant factors.
4. This Order applies to existing CAFOs or Existing Enrollees, defined as those Dischargers previously authorized to discharge wastes under Order R7-2013-0800, and to new CAFOs or New Enrollees, defined as those Dischargers not previously authorized to discharge wastes under Order R7-2013-0800.
5. CAFOs and AFOs that do not discharge wastes to waters of the U.S., or whose discharges are composed entirely of agricultural stormwater as specified in Section VII.C.3.b.i of this Order and as defined in 40 Code of Federal Regulations section 122.23(e), are generally not required to obtain authorization under this Order.
6. Duck, horse, and sheep CAFOs established prior to February 14, 1974, are excluded from coverage under the Order because the effluent limitation guidelines (ELGs) applicable to those facilities are different than the effluent limitations established in this Order. The Colorado River Basin Water Board is not aware of the existence of any duck, horse, or sheep CAFOs established prior to 1974 in the region.
7. This Order does not cover stormwater discharges associated with non-CAFO industrial activities. The Discharger may need to enroll under the State Water Board's General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES General Permit No. CAS000001) or obtain individual waste discharge requirements from the Colorado River Basin Water Board for these types of discharges.

B. Enrollment Requirements

1. **Notice of Intent.** It is the responsibility of the Discharger to obtain coverage under this General Permit for any discharge or potential discharge to waters of the United

States in accordance with 40 Code of Regulations section 122.28(b). Dischargers must apply for coverage by submitting a complete Notice of Intent (NOI), as follows:

- a. **General Requirements.** The NOI shall include the legal name and address of the owner or operator and its telephone number.
 - b. **New Enrollees.** The NOI for new enrollees shall also include the name and address of the facility, the animal population, and the size (acres) of existing ponds, corrals and wastewater disposal areas. The NOI form is available on the internet at https://www.epa.gov/sites/production/files/2019-05/documents/form_2b_epa_form_3510-2b.pdf. A hard copy of the NOI form can be obtained from the Colorado River Basin Water Board upon request.
 - c. **Existing Enrollees.** The NOI for Existing Enrollees under Order R7-2013-0800 shall also include the name and address of the facility, and either (1) information certifying either that the NOI information previously submitted has not changed or (2) updated information to replace previously-submitted NOI information that is no longer accurate. The NOI form for existing enrollees is included in Attachment K.
2. **Engineered Waste Management Plan (EWMP).** All Dischargers shall complete an EWMP, developed in accordance with Attachment B of this General Permit.
 - a. **New Enrollees.** New Enrollees must submit an EWMP that complies with Attachment B concurrently with the NOI for approval by the Colorado River Basin Water Board's Executive Officer.
 - b. **Existing Enrollees.** Enrollees under Order R7-2013-0800 who did not previously submit an EWMP or whose previously-approved EWMP does not reflect current operating conditions, shall submit an EWMP that complies with Attachment B concurrently with the NOI for approval by the Colorado River Basin Water Board's Executive Officer.
3. **Nutrient Management Plan (NMP).** If the Discharger proposes to apply manure to land, the Discharger shall complete an NMP, developed in accordance with Attachments B and C of this General Permit. The NMP shall be submitted concurrently with the NOI for approval by the Executive Officer following the required public notification and comment procedures in Section VII.C.3.b.xii.(e) of this Order. The Discharger may not commence the application of manure to land until an approved NMP is in place.
4. **Summary of Application Requirements.** To obtain coverage under this Order, the Discharger must submit the items identified below:

Discharger Type	Required Submittals	Submittal Deadline
Existing Dischargers previously authorized to discharge wastes under Order R7-2013-0800	<ul style="list-style-type: none"> • Notice of Intent (NOI) Form for Existing Enrollees. • Additional submittals required if: <ul style="list-style-type: none"> ◦ Discharger proposes to apply manure to land. In this case an updated Nutrient Management Plan (NMP) is required. ◦ Previously-submitted Engineered Waste Management Plan (EWMP) does not reflect current operating conditions. In this case a revised EWMP is required. 	<ul style="list-style-type: none"> • NOI April 1, 2022² • NMP (if applicable): April 1, 2022 • EWMP (if applicable): April 1, 2022
New Dischargers not previously authorized to discharge wastes under Order R7-2013-0800	<ul style="list-style-type: none"> • Completed NOI Form (Form 2B) • First annual fee • EWMP • Any other information deemed necessary by the Executive Officer • NMP (if Discharger is currently applying or proposes to apply manure to land) 	<p>Case 1 (No proposed land application of manure)</p> <ul style="list-style-type: none"> • At least 30 days before the start of coverage under this permit <p>Case 2 (Proposed or existing land application of manure)</p> <ul style="list-style-type: none"> • At least 90 days before the start of coverage under this permit

5. Notice of Applicability. Colorado River Basin Water Board staff will review all application materials for completeness and may request additional information from the CAFO owner or operator as necessary. Once staff makes a preliminary determination that the application is complete, the application materials and the terms of the NMP to be incorporated into the permit will be made available for a 30-day public review and comment period to comply with 40 C.F.R. section 122.23(h)(1). Colorado River Basin Water Board staff will review comments received during the comment period and, at the discretion of the Executive Officer, may require the CAFO owner or operator to revise the NMP. If the discharge meets the requirements of the General Permit, the Colorado River Basin Water Board will provide the owner or operator with a written discharge authorization after close of the public comment period through a Notice of Applicability (NOA) letter.

6. Individual WDRs. The Executive Officer of the Colorado River Basin Water Board may require any person authorized to discharge wastes by this Order to subsequently

² Note, however, that Dischargers may not land apply manure, litter, or process wastewater except in accordance with the terms of an approved NMP. The process to review NMPs, develop terms, and make them available for public comment prior to NMP approval could last up to 90 days from the date the NMP is submitted.

apply for and obtain individual waste discharge requirements. Cases where individual waste discharge requirements may be required include the following:

- a. The Discharger is not in compliance with the conditions of this Order or the discharge authorization letter from the Executive Officer;
- b. New effluent limitation guidelines (ELGs) are promulgated for point sources covered by the general NPDES permit;
- c. Changes to the Basin Plan including requirements applicable to CAFOs are approved;
- d. The requirements of 40 C.F.R. section 122.28(a) are not met; or
- e. The discharge may adversely affect the water quality objectives of the receiving water.

C. Termination of Enrollment Upon ceasing operations at the CAFO, the Discharger shall ensure that the CAFO has been cleaned out so that there will be no discharge of manure, litter or process wastewater. Standard cleaning procedures may include, but are not limited to, scraping all the manure off the corral areas, emptying the containment pond(s), and filling in the containment pond(s) with clean dirt, and excavation of soil containing high levels of nitrogen at the base of ponds. The Discharger shall submit a written request to terminate enrollment under the General Permit to the Colorado River Basin Water Board. Once the Colorado River Basin Water Board determines that the facility no longer poses a threat to water quality, the Colorado River Basin Water Board will issue a Notice of Termination (NOT) letter to the Discharger.

D. Transfer of Ownership In the event of any change in operational control or ownership of land or facilities that are part of the CAFO, the Discharger shall notify the succeeding owner or operator of the existence of this General Permit by letter, a copy of which shall be immediately forwarded to the Colorado River Basin Water Board. Further, the Discharger shall notify the succeeding owner/operator of the requirements to obtain coverage under this General Permit (including the submittal of a new NOI, EWMP, NMP and other required application submittals) and the Discharger shall submit a request to terminate coverage under the General Permit to the Colorado River Basin Water Board.

III. BACKGROUND & RATIONALE FOR REQUIREMENTS

A. Legal Authorities

1. On September 22, 1989, a Memorandum of Agreement³ executed by USEPA and the State Water Board authorized and established procedures for the State Water Board

³ A copy of the Memorandum of Agreement is available at:
https://www.waterboards.ca.gov/water_issues/programs/npdes/docs/aquatic/moa.pdf.

to issue general NPDES permits pursuant to NPDES regulations at 40 Code of Federal Regulations sections 122.28 and 122.44.

2. This Order is issued pursuant to the federal Clean Water Act section 402 and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). This Order is also issued pursuant to 40 Code of Federal Regulations section 122.28, which provide for the issuance of general NPDES permits to regulate a category of point sources which involve the same or substantially similar types of operations; discharge the same type of wastes; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under general discharge requirements.
3. This Order also serves as WDRs pursuant to the California Water Code, division 7, chapter 4, article 4 (commencing with section 13260). This Order is further issued pursuant to Water Code section 13263(i), which authorizes the Regional Water Board to prescribe general WDRs for a category of discharges which are produced by the same or similar operations; involve the same or similar types of waste; require the same or similar treatment standards; and are more appropriately regulated under general discharge requirements.
4. Clean Water Act section 502 specifically defines the term “point source” to include CAFOs. USEPA first issued Effluent Limitations Guidelines (ELGs) for feedlots in 1974 and promulgated NPDES CAFO regulations in 1976. On February 12, 2003, USEPA updated the original CAFO regulations to address changes in the animal agriculture industry sectors. (68 FR 7176 [Feb. 12, 2003].) USEPA subsequently published revisions to the CAFO regulations in 2008 to address a 2005 decision by the U.S. Court of Appeals for the Second Circuit in litigation challenging the 2003 regulatory updates. (73 FR 70418 [Nov. 20, 2008].) In 2012, USEPA made amendments to the CAFO regulations following a 2011 decision by the U.S. Court of Appeals for the Fifth Circuit challenging the 2008 regulatory updates (77 FR 44494 [July 30, 2012].) USEPA’s ELGs for CAFOs are contained in 40 Code of Federal Regulations part 412. The CAFO ELGs establish the technology-based effluent limitations and new source performance standards (NSPS) for those operations that meet the regulatory definition of a Large CAFO.
5. Under state law, California Code of Regulations, title 27, section 22560 et seq. prescribes minimum statewide minimum standards for discharges of animal waste at CAFOs.

B. Background and Rationale for Requirements. The Colorado River Basin Water Board developed the requirements in this Order based on the previous Order (R7-2013-0800) and other available information. The Technical Standards for Nutrient Management (Attachment C) are based on those contained in the previous Order and reflect updates to standards developed by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). 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 and G through K are also incorporated into this Order.

- C. Provisions and Requirements Implementing State Law.** The provisions in Sections VI.B, VII.A.2, and VII.C.2 of the Order and VIII.C of the MRP of this Order are included to implement state law only. These provisions are not required or authorized under the federal Clean Water Act. Consequently, violations of these provisions are not subject to the enforcement remedies that are available for NPDES violations; instead, they are subject to the enforcement remedies under the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.) and other state laws.
- D. Notification of Interested Parties.** The Colorado River Basin Water Board has notified Existing CAFOs enrolled in Order R7-2013-0800 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 (Attachment F) of this Order.
- E. Consideration of Public Comment.** The Colorado River Basin 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.

IV. DISCHARGE PROHIBITIONS

- A.** The discharge of any substances in concentrations toxic to animal or plant life is prohibited.
- B.** The direct or indirect discharge of waste and process wastewater to any surface water bodies is prohibited, except as specifically provided for in this Order. This discharge prohibition includes discharging wastes and process wastewater into surface waters via tile drainage lines.
- C.** All animals within a CAFO facility shall be prohibited from entering or having direct contact with waters of the United States. The Discharger shall develop and implement appropriate controls to prohibit all animals at the CAFO from entering any surface water within the production area.
- D.** The disposal of any mortality in any process wastewater system within the regulated CAFO is prohibited. Mortalities shall be handled and disposed of in a manner that prevents the discharge of pollutants to waters of the state. If federal, state or local officials have declared a State of Emergency and all other disposal options have been pursued and failed, onsite disposal may be allowed, provided the disposal is consistent with the California Environmental Protection Agency's (CalEPA) *Emergency Animal Disease Regulatory Guidance for Disposal and Decontamination* (October 2004). Dead animals

shall be disposed of in accordance with local laws, regulations, and ordinances. Records of mortality management shall be kept for five years.

- E. The land application of manure, compost, or process wastewater for other than nutrient recycling in accordance with an approved Nutrient Management Plan (NMP) is prohibited.
- F. The following prohibitions are applicable to Dischargers with composting operations onsite at the permitted facility that are not covered under separate waste discharge requirements for composting:
 - 1. Transporting, stockpiling, composting, and processing operations shall not cause, or threaten to cause a condition of pollution or nuisance, as defined in Water Code section 13050, subdivisions (l) and (m), respectively.
 - 2. Composting, stockpiling or otherwise accepting feedstocks or materials not generated onsite at the permitted CAFO is prohibited.
- G. The discharge of waste to land not owned or controlled by the Discharger is prohibited, unless authorized in separate Waste Discharge Requirements or an NPDES permit.
- H. The discharge of waste from permitted facilities to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations is prohibited.
- I. The treatment or disposal of wastes from the facility shall not cause a condition of pollution or nuisance, as defined in Water Code section 13050, subdivisions (l) and (m), respectively.
- J. The discharge of trash to the surface waters, including, but not limited to the New River and Alamo River, is prohibited.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations Applicable to the Production Area at Existing CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves and at New Source CAFOs that Confine Dairy Cows and Cattle Other Than Veal Calves

- 1. There shall be no discharge of manure, litter, or process wastewater pollutants into waters of the United States from the production area, except as provided below in Section V.A.2.
- 2. Whenever precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into waters of the United States provided all provisions of an Engineered Waste Management Plan (EWMP), approved by the Executive Officer, are fully implemented and:
 - a. For existing CAFOs that confine dairy cows, cattle, swine, poultry and veal calves and for new source CAFOs that confine dairy cows and cattle other than veal

calves, the production area is properly designed, constructed, operated and maintained to contain all manure, litter, process wastewater and the runoff and direct precipitation from a 25-year, 24-hour storm event for the location of the CAFO.

b. The design storage volume shall reflect the following:

- i. all wastes accumulated during the storage period, consistent with manure, litter, or process wastewater removal schedules in the Discharger's approved NMP, if applicable;
- ii. normal precipitation less evaporation during the storage period;
- iii. normal runoff during the storage period;
- iv. the direct precipitation from a 25-year, 24-hour storm event;
- v. the runoff from the 25-year, 24-hour storm event from the production area;
- vi. residual solids after liquid has been removed;
- vii. necessary freeboard to maintain structural integrity, in accordance with Section VII.C.3.a.i(a); and
- viii. in the case of treatment lagoons, a minimum treatment volume.

c. The production area is operated in accordance with the additional measures specified in Section V.C.1 of this Order, "Additional Measures Applicable to the Production Area," at CAFOs that confine dairy cows, cattle, swine, poultry, and veal calves and in Discharge Prohibition IV.E.

d. The Discharger maintains the records specified in Section V.C.1 of this Order and Section X.C (Operation and Maintenance Records) of the Monitoring and Reporting Program (Attachment E) of this Order.

B. Effluent Limitations Applicable to the Production Area at New Source CAFOs that Confine Swine, Poultry, and Veal Calves

For new source CAFOs that confine swine, poultry, or veal calves, there shall be no discharge of manure, litter, or process wastewater pollutants into waters of the United States from the production area, subject to Subsections 1 and 2 of this Section V.B.

1. Any CAFO subject to this Section V.B may request that the Executive Officer establish best management practices to ensure no discharge of manure, litter, or process wastewater, based upon a site-specific evaluation of the CAFO's open surface manure storage structure. The best management practice effluent limitations must address the CAFO's entire production area. Where the Executive Officer establishes such effluent limitations for an open surface manure storage structure, "no discharge of manure, litter, or process wastewater pollutants," as used in this Section, means

that the storage structure is designed, operated, and maintained in accordance with site-specific best management practices established by the Executive Officer after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

- a.** Information to be used in the design of the open manure storage structure including, but not limited to, the following:
 - minimum storage periods for rainy seasons;
 - additional minimum capacity for chronic rainfalls;
 - applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground;
 - planned emptying and dewatering schedules consistent with the CAFO's NMP;
 - additional storage capacity for manure intended to be transferred to another recipient at a later time; and
 - any other factors that would affect the sizing of the open manure storage structure.
- b.** The design of the open manure storage structure as determined by the most recent version of National Resource Conservation Service's Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Executive Officer.
- c.** All inputs used in the open manure storage structure design including:
 - actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values;
 - the number and types of animals;
 - anticipated animal sizes or weights;
 - any added water and bedding;
 - any other process wastewater; and
 - the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure.
- d.** The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in Subsection 1.a of this Section V.B. Alternatively, the CAFO may determine the minimum

period of storage by specifying times the storage pond will be emptied consistent with the CAFO's NMP.

- e. Site-specific predicted design specifications including:
- dimensions of the storage facility;
 - daily manure and wastewater additions;
 - the size and characteristics of the land application areas;
 - and the total calculated storage period in months.
- f. An evaluation of the adequacy of the designed manure storage structure using the most recent version of the soil plant air water (SPAW) hydrology tool.⁴ The evaluation must include all inputs to SPAW including but not limited to:
- daily precipitation, temperature, and evaporation data for the previous 100 years;
 - user-specified soil profiles representative of the CAFO's land application areas;
 - planned crop rotations consistent with the CAFO's NMP; and
 - the final modeled result of no overflows from the designed open manure storage structure.
- Where 100 years of local weather data for a CAFO's location is not available, the CAFO may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Executive Officer may approve equivalent evaluation and simulation procedures.
- g. The Executive Officer may waive the requirement of Subsection 1.f for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.
- h. Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in Subsections 1.a through 1.g of this Section V.B and operated in accordance with the additional measures and records required by Section V.C.1 of this permit, "Additional Measures Applicable to the Production Area" at CAFOs that confine dairy cows, cattle, swine, poultry, and veal calves, and Discharge Prohibition IV.E, will fulfill the requirements of this Section.

⁴ The SPAW tool can be downloaded from USDA Agricultural Research Service's website:
<https://hydrolab.arsusda.gov/SPAW/SPAWDownload.html>

- i. The Executive Officer has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.
2. The production area shall be operated in accordance with the additional measures and records required by Section V.C.1 of this permit, "Additional Measures Applicable to the Production Area" at CAFOs that confine dairy cows, cattle, swine, poultry, and veal calves, and Discharge Prohibition IV.E.

C. Additional Measures Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves

In addition to the requirements in Sections V.A or V.B of this Order, the Discharger shall implement the following additional measures.

1. Additional Measures Applicable to the Production Area

- a. Weekly visual inspections of all stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to the wastewater and manure storage and containment structure.
- b. Daily visual inspections of all water lines, including drinking water or cooling water lines.
- c. Weekly inspections of the manure, litter, and process wastewater impoundments noting the level as indicated by a depth marker installed in all open surface liquid impoundments. Each depth marker shall clearly indicate the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event. or, for new source swine, poultry or veal calf CAFOs, other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of Section V.B, for the location of the permitted CAFO.
- d. Correct any deficiencies that are identified in daily and weekly inspections as soon as possible.
- e. Mortalities must not be disposed of in any liquid manure or process wastewater system and must be handled in such a way as to prevent the discharge of pollutants to surface water, unless alternative technologies pursuant to 40 Code of Federal Regulations section 412.31(a)(2) and approved by the Executive Officer are designed to handle mortalities.
- f. The maintenance of complete on-site records documenting implementation of all required additional measures for a period of 5 years, including the applicable records specified in Section X.C (Operation and Maintenance Records) of the Monitoring and Reporting Program (Attachment E) of this Order.\

2. Additional Measures Applicable to the Land Application Area

- a. The Discharger who applies manure, litter, or process wastewater to land shall develop, prepare, and implement an NMP in accordance with the requirements specified below and in Section VII.C.3.b of this Order, and in compliance with the Technical Standards for Nutrient Management specified in Attachment C of this Order.
- b. The Discharger shall comply with the following requirements based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters. These requirements shall be incorporated into the Discharger's NMP.
 - i. **Determination of application rates.** Application rates for manure, litter, or process wastewater are to be developed that minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the Technical Standards for Nutrient Management (Attachment C). The technical standards for nutrient management shall include a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters and address the form, source, amount, timing and method of application of nutrients on each field to achieve realistic production goals while minimizing nitrogen and phosphorus and appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components as determined appropriate by the Executive Officer.
 - ii. **Manure and soil sampling.** Manure, litter, and process wastewater shall be analyzed a minimum of once annually for nitrogen and phosphorus content and soil analyzed a minimum of once every 5 years for phosphorus content. The Discharger shall use the results of these analyses in determining application rates. Manure and soil sampling shall be conducted in compliance with the Technical Standards for Nutrient Management (Attachment C) and Monitoring and Reporting Program (Attachment E).
 - iii. **Inspect land application equipment for leaks.** The Discharger shall inspect equipment used for land application of manure, litter, or process wastewater. Inspections of equipment used to apply solid manure occur at a minimum of once annually. Inspections of equipment use to apply liquid manure shall be made a minimum of once per day during application.
 - iv. **Setback requirements.** Unless the Discharger exercises one of the compliance alternatives provided for in Subsections (a) and (b), below, of this Section V.C.2.b.iv, manure, litter, process wastewater, or compost 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 waters.

- (a) Vegetated buffer compliance 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.
- (b) Alternative practices compliance alternative. As a compliance 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 to or better than the reductions that would be achieved by the 100-foot setback.

Any alternative practice implemented to comply with this Section shall be submitted in writing for approval to the Executive Officer prior to implementation.

D. Effluent Limitations Applicable to the Production Area at CAFOs that Confine Horses, Sheep, and Ducks

1. There shall be no discharge of process wastewater pollutants into waters of the United States. Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the CAFO any process wastewater pollutants in the overflow may be discharged into waters of the U.S.
2. **Pretreatment Standards for Duck CAFOs.** Duck CAFOs shall achieve the following performance standards:
 - a. There shall be no introduction of process wastewater pollutants to a publicly owned treatment works (POTW).
 - b. Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all process-generated wastewaters plus the runoff from a 25-year, 24-hour rainfall event at the location of the discharge, any process wastewater pollutants in the overflow may be discharged to a POTW.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

VI. 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. The discharge shall not cause or contribute to the following in surface receiving waters:

1. **Dissolved Oxygen.** The concentration of dissolved oxygen to fall below 5.0 mg/L for waters designated WARM or 8.0 mg/L for waters designated COLD or WARM and COLD. When dissolved oxygen in the receiving water is already below the applicable water quality objective, the discharge shall not cause any further depression.
2. **Oil, Grease, and Floating Material.** Oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
3. **Pesticides.** The deposition of pesticides or any combination of pesticides in detectable in concentrations that adversely affect beneficial uses.
4. **Color.** Discoloration that creates a nuisance or adversely affects beneficial uses.
5. **Biostimulatory Substances.** The discharge of biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
6. **Turbidity.** An increase in turbidity that causes a nuisance or adversely affects beneficial uses.
7. **pH.** The normal ambient pH of the receiving water to fall below 6.0 or exceed 9.0 units.
8. **Temperature.** An alteration in the natural receiving water temperature, unless the Discharger can demonstrate to the satisfaction of the Colorado River Basin Water Board that such alteration in temperature does not adversely affect beneficial uses.
9. **Settleable Substances.** The deposition of material in amounts that cause a nuisance or adversely affect beneficial uses.
10. **Chemical Constituents.** Chemicals to be present in concentrations that adversely affect beneficial uses.

- 11. Toxicity.** Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- 12. Taste and Odors.** An increase in taste- or odor-producing substances that adversely affects beneficial uses.
- 13. Total Dissolved Solids.** For discharges to the New River, Alamo River, and Imperial Drains, the concentration of total dissolved solids to exceed an annual average concentration of 4,000 mg/L or a maximum daily concentration of 4,500 mg/L. For discharges to the Coachella Valley Drains and Palo Verde Valley Drains, the concentration of total dissolved solids to exceed an annual average concentration of 2,000 mg/L or a maximum daily concentration of 2,500 mg/L.
- 14. Water Quality Standards.** The violation of any applicable water quality standard for receiving waters adopted by the Colorado River Basin Water Board or the State Water Board as required by the federal Clean Water Act and regulations adopted thereunder.

B. Groundwater Limitations

The discharge of wastes from the permitted facility shall not cause the underlying groundwater to exceed water quality objectives, adversely affect beneficial uses, or cause a condition of pollution or nuisance.

VII. PROVISIONS

A. Standard Provisions

- 1. Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
- 2. Colorado River Basin Water Board Standard Provisions.** The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between the federal standard provisions included in Attachment D and the Colorado River Basin Water Board's standard provisions, the more stringent provision shall apply:
 - a. The Discharger shall comply with all conditions of this Order and all terms, conditions, and limitations specified in the Notice of Applicability letter issued by the Executive Officer. Noncompliance constitutes a violation of the federal Clean Water Act and/or Porter-Cologne Water Quality Control Act, and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification of waste discharge requirements, or denial of a permit renewal application.
 - b. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Order and shall maintain a copy of this Order at the site.

- c. Prior to any modifications in the permitted facility that would result in a material change in the quality or quantity of a discharge, or its location, the Discharger shall report all pertinent information in writing to the Colorado River Basin Water Board, including a revised EWMP, and obtain revised requirements before any modifications are implemented.
- d. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
- e. This Order does not authorize violation of any federal, state, or local laws or regulations.
- f. The facility shall be protected to reduce infrastructure vulnerability to extreme wet weather events, flooding, and storm surges resulting from current and future impacts associated with climate change.
- g. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from a facility covered under this Order, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- h. In the event the Discharger does not comply or will be unable to comply with this Order or any reason, the Discharger shall notify the Colorado River Basin Water Board as follows:
 - i. Noncompliance with any prohibition, effluent limitation, or receiving water limitation of this Order:
 - (a) The Discharger shall notify the Colorado River Basin Water Board by email to RB7-coloradoriver@waterboards.ca.gov within 24 hours of having knowledge of such noncompliance.
 - (b) The Discharger shall submit a written report within five days of noncompliance, unless the Colorado River Basin Water Board waives this requirement. The written report shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation.
 - ii. For all other forms of noncompliance:
 - (a) The Discharger shall notify the Colorado River Basin Water Board at the time monitoring reports are submitted. The Discharger shall include a written report regarding noncompliance as described in Section VII.A.2.h.i.b.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP in Attachment E of this Order and any future revisions thereto. This MRP may be modified by the Executive Officer at any time during the term of this Order and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected, or minor clarifications on MRP requirements.

C. Special Provisions

1. Reopener Provisions

- a. **Standard Revisions.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for an Order modification, revocation and reissuance, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, the modification of land application plans, or the adoption of new regulations by the State Water Board or the Colorado River Basin Water Board, including revisions to the Basin Plan.
- b. **303(d)-Listed Pollutants.** If new or revised water quality objectives or Total Maximum Daily Loads (TMDLs) come into effect for receiving waters, the effluent limitations in this Order may be modified as necessary to reflect any updated water quality objectives and TMDL wasteload allocations.
- c. **Reasonable Potential.** This Order may be modified or revoked and reissued if present or future investigations demonstrate that the Discharger is causing or contributing to excursions above any applicable water quality objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Groundwater Trend Monitoring.** The Discharger is responsible for demonstrating compliance with the Groundwater Limitations in Section VI.B above. The urine, manure or process water generated from the production area may result in the discharge of nutrients and/or salts that have the potential to adversely impact the quality of groundwater. The purpose of groundwater trend monitoring is to evaluate the water quality of the groundwater underlying the facilities regulated by this Order and any pollutant concentration trends observed. This Order requires Dischargers to monitor groundwater to ensure compliance with receiving water limitations for groundwater.

Within 24 months of the effective date of this Order, the Discharger shall submit a work plan that specifies how the groundwater monitoring will be completed (Groundwater Trend Monitoring Workplan). Dischargers may choose to form a group and participate in an approved Representative Monitoring Program (RMP)

or develop and implement a site-specific monitoring plan (Individual Groundwater Monitoring). The Groundwater Trend Monitoring Workplan must include the following:

- i. Sufficient monitoring wells to characterize (1) groundwater flow direction and gradient beneath the site, (2) groundwater quality upgradient of the facility, and (3) groundwater quality downgradient of the production areas and/or the land application areas.
- ii. The placement of monitoring wells should be based on the site-specific hydrogeology of the area surrounding the facility. At a minimum, groundwater monitoring wells should be placed upgradient and downgradient of the facility, production areas, and/or land application areas.
- iii. The following information concerning the monitoring wells: global positioning system (GPS) coordinates, physical address of the property on which the well is situated, California state well number, well depth, top and bottom perforation depths, a copy of the water well drillers log, if available, depth of standing water, and well seal information.
- iv. A Quality Assurance Project Plan (QAPP) describing the objectives and organization of the proposed groundwater monitoring and quality assurance/quality control to be conducted. The purpose of the QAPP is to ensure that the data collection and analysis is consistent with the type and quality of data needed to meet the Colorado River Basin Water Board's monitoring goals and objectives. The QAPP shall include at least the following four sections: (1) Project Management, (2) Data Generation and Acquisition, (3) Assessment and Oversight, and (4) Data Validation and Usability. Laboratory analytical methods shall be included an appendix of the QAPP. QAPP development resources are available at: https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html.
- v. Identification of whether groundwater monitoring will be performed on a site specific/individual basis or as part of a group. As an alternative to monitoring groundwater on an individual basis, Dischargers may choose to participate in a Representative Monitoring Program. A Representative Monitoring Group is composed of a number of dischargers located in the same hydrologic formation and geographical area. A representative of the Representative Monitoring Group will convey information related to a Discharger's participation in the Representative Monitoring Program, conduct representative monitoring pursuant to an approved monitoring plan, and prepare and submit any required plans and monitoring reports.

The Executive Officer must approve both the Groundwater Trend Monitoring Workplan and the associated Quality Assurance Project Plan (QAPP).

3. Best Management Practices and Pollution Prevention

a. Best Management Practices

- i. The Discharger shall ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities. The Discharger shall develop and implement specific practices and operate and maintain associated structures to ensure adequate storage capacity to achieve permit limitations including:
 - (a) Maintain sufficient capacity in liquid manure, wastewater, or stormwater storage structures to ensure compliance with all permit requirements, including:
 - A minimum freeboard of two (2) feet for earthen-lined, above-grade storage structures and one (1) foot for synthetic-lined or below-grade storage structures shall be maintained at all times in the ponds.
 - Following a storm event, the Discharger shall restore the wastewater holding capacity of retention ponds in a timely manner, consistent with the applicable provisions of the approved NMP and Section VII.C.5.a (Transfer of Manure, Litter, and Process Wastewater) of this Order.
 - (b) Store raw manure in production buildings or in storage facilities or otherwise store it in such a way as to prevent polluted runoff.
 - (c) Remove manure and compostable material from the facility or land apply manure or compostable material in accordance with the facility's NMP within 180 days. Any manure or compostable material remaining at the facility after 180 days of being removed from the corrals is considered to be disposal⁵ of manure or compostable material and is prohibited in accordance with Section IV.G of this Order (and by county ordinance for dischargers in Imperial County). This requirement does not apply to finished compost that is ready for the garden.
 - Large CAFOs shall prepare a manifest for the manure hauled away during each hauling event (Attachment H). The annual report prepared in accordance with the Monitoring and Reporting Program (Attachment E) shall include a certification that a Manure Tracking Manifest was prepared for each manure hauling event.
 - The Discharger shall be responsible for appropriate disposal of manure from the property within the 180-day period following removal of the manure from corrals. This means that disposal shall be coordinated with periods of rainfall such that manure can be removed from the facility within 180 days of being scraped from corrals.

⁵ Disposal is defined in Cal. Code Regs, title 14, section 17852(a)(15)

- The Discharger may submit a written request to the Executive Officer for approval to authorize a longer storage time for manure or compostable material in the event that unforeseen circumstances justify a longer storage time. The Discharger must also seek concurrence with Imperial County for authorization of a longer storage time of manure or compostable material.
- (d) Provide adequate storage capacity to ensure compliance with the Technical Standards for Nutrient Management (Attachment C) and to meet the applicable effluent limitations of Section V of this Order.
- (e) Ensure proper operation and maintenance of all manure, litter, and stormwater storage facilities, including all applicable operation and maintenance requirements specified in Section VII.C.4 of this Order.
- ii. The Discharger shall ensure that clean water is diverted, as appropriate, from the production area. Clean water includes rain falling on roofs of facilities, runoff from adjacent land, and other sources.
 - (a) If clean water is not diverted from coming into contact with manure, litter, process wastewater, raw materials, products, or by-products including feed, milk, eggs, or bedding, it shall be contained in accordance with permit requirements and the retention structures shall include adequate storage capacity for the undiverted water in accordance with the applicable requirements of Section VII.C.3.a.i of this Order.
 - (b) 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.
- iii. The Discharger shall ensure that chemicals and other contaminants handled onsite are not disposed of in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals or contaminants. The Discharger shall develop and implement controls to prevent the inappropriate introduction of chemicals into the manure, wastewater, and stormwater storage and handling system. Examples include pesticides, hazardous and toxic chemicals, and petroleum products and by-products.
- iv. The Discharger shall identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices to control runoff of pollutants from the production area to waters of the United States.

b. Nutrient Management Plan (NMP)

Dischargers who apply manure, litter, or process wastewater to land under their control shall develop and fully implement an approved, site-specific NMP in addition to the EWMP. The NMP shall be prepared in accordance with Section V.C.2 of this Order, and shall follow the guidelines included in Attachment C, Technical Standards for Nutrient Management. The Discharger also shall comply with the recordkeeping requirements described in Sections X.B and X.D of the MRP.

- i. There shall be no discharge of manure, litter, or process wastewater to a water of the United States from a CAFO as a result of the application of manure, litter, or process wastewater to land areas under the control of the CAFO, except where it is an agricultural stormwater discharge. Where manure, litter, or process wastewater has been applied in accordance with a site-specific NMP, as specified in this Section VII.C.3.b, consistent with 40 C.F.R. section 122.23(e), a precipitation-related discharge of manure, litter, or process wastewater from land application areas under the control of the CAFO is considered to be an agricultural stormwater discharge.
- ii. The Discharger shall develop and implement site-specific conservation practices that are sufficient to minimize the discharge of pollutants to waters of the United States. These practices may include, but are not limited to residue management, conservation crop rotation, grassed waterways, strip cropping, vegetated buffers, riparian buffers, setbacks, terracing, and diversions. The following specific measures shall be implemented:
 - (a) The land application setbacks or compliance alternatives specified in Section V.C.2.b.iv of this Order.
 - (b) Manure applied to cultivated cropland shall be incorporated into soil soon after application or appropriate containment (based on the specific crop grown) shall be provided.
 - (c) Land application areas that receive dry manure shall be managed through implementation of erosion control measures to minimize erosion and shall be consistent with the NMP.
 - (d) Process wastewater applied to land application areas shall not be applied at rates or in quantities that prevent the wastewater from infiltrating completely within 72 hours after application.
 - (e) Process wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with the NMP.
 - (f) For irrigated land application areas, there shall be no runoff from the field from the first irrigation after manure application and before planting.

- iii. The Discharger shall identify protocols for appropriate testing of manure, litter, process wastewater, and soil.
- (a) The Discharger shall identify and implement specific manure, wastewater, and soil sample collection and analysis protocols to be used in developing and implementing the NMP required in Sections V.C.2.a and VII.C.3.b of this Order.
- (b) At a minimum, the protocol shall specify the collection and analysis of manure, litter, process wastewater and soil as follows, in accordance with Sections IX.C and IX.D of the MRP:

Material Analyzed	Parameter(s)	Minimum Frequency
Manure, litter, process wastewater	<ul style="list-style-type: none"> • Ammonium nitrogen • Total Kjeldahl nitrogen • Total phosphorus • pH 	Annually
Soil	<ul style="list-style-type: none"> • Soluble phosphorus • pH 	Once every 5 years for all fields under the control of the Discharger where manure, litter and process wastewater may be applied

- (c) In all cases the sampling protocols for manure, litter, process wastewater, and soil shall be consistent with the Technical Standards for Nutrient Management (Attachment C).
- iv. The Discharger shall develop and implement protocols to land apply manure, litter, and process wastewater in accordance with the Technical Standards for Nutrient Management (Attachment C). Land application rates shall be consistent with the following:
- (a) Land application of wastes for nutrient recycling from existing CAFOs shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.
- (b) The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the NMP.
- (c) The NMP shall include the following information, which shall become site-specific terms of the approved NMP and incorporated into the Discharger's permit by reference in accordance with Section VII.C.3.b.ix of this Order:

- The maximum amounts of plant available nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the NMP, in pounds per acre, for each field.
- The outcome of the phosphorus risk transport assessment conducted for each field in accordance with the Technical Standards for Nutrient Management in Attachment C.
- The crops to be planted in each field or any other uses such as pasture or fallow fields. The NMP may include alternative crops that are not in the planned crop rotation. Alternative crops, where included, must be listed by field.
- Realistic yield goal for each crop and alternative crop, if included, or use identified for each field, determined in accordance with the Technical Standards for Nutrient Management in Attachment C.
- The nitrogen and phosphorus recommendation for each crop and alternative crop, if included, or use identified for each field, determined in accordance with the Technical Standards for Nutrient Management in Attachment C.
- 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. Where land application rates are calculated using a software package that addresses the factors listed below, and the software addresses those factors in compliance with all applicable requirements of the Order and the Technical Standards for Nutrient Management, use of the software package may be identified as the methodology for those factors addressed by the software:
 - Results of soil tests conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;
 - Credits for all nitrogen in the field that will be plant available, including mineralization from prior manure applications and nutrient credits from previous legume crops, determined in accordance with the Technical Standards for Nutrient Management in Attachment C;
 - The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be land applied;
 - Consideration of multi-year phosphorus application, to be conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;

- All other applications 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, in accordance with the Technical Standards for Nutrient Management in Attachment C; and;
 - Volatilization of nitrogen and mineralization of organic nitrogen, in accordance with the Technical Standards for Nutrient Management in Attachment C.
- (d) The NMP shall include projections for each of the following elements; these projections are included to demonstrate use of the methodology required in Section VII.C.3.b.iv(c) above and will not become site-specific terms of the approved NMP:
- Planned crop rotations for each field for the period of permit coverage;
 - The projected amount of manure, litter, and process wastewater to be applied to each field;
 - Projected credits for all nitrogen in the field that will be plant available;
 - Consideration of multi-year phosphorus application, including identification of fields where such applications are planned;
 - Accounting for all other additions of plant available nitrogen and phosphorus to the field;
 - The predicted form, source, and method of application of manure, litter, and process wastewater for each crop.
- (e) The Discharger shall calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology identified in the NMP in accordance with Section VII.C.3.b.iv(c) above before land applying manure, litter, and process wastewater. The required calculations shall rely on the following data:
- A field-specific determination of soil levels of nitrogen and phosphorus, including:
 - for nitrogen, a concurrent determination of nitrogen that will be plant available; and

- for phosphorus, the results of the most recent soil test conducted in accordance with the Technical Standards for Nutrient Management in Attachment C;
 - The results of the most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application in accordance with the Technical Standards for Nutrient Management in Attachment C.
- v. The Discharger shall identify specific records that will be maintained to document the development, implementation, and management of the NMP and compliance with the minimum practices described in this Section VII.C.3.b.i – iv and consistent with the record keeping requirements in Sections X.B and X.D of the MRP.
- vi. The NMP shall be prepared and submitted according to the following schedule:
 - (a) Existing Enrollees: As soon as possible, but no later than April 1, 2022. Manure, litter, and process wastewater may not be applied to land except in accordance with the terms of an approved NMP. The NMP review and approval process may extend up to 90 days after NMP submittal. Owners and operators of existing CAFOs are encouraged to submit NMPs for approval early enough to allow for review and approval before manure, litter, or process wastewater is applied.
 - (b) New Enrollees: With the Discharger's NOI in accordance with Section II.A, General Permit Application and Coverage.
 - (c) Existing CAFOs that do not currently apply, or new CAFOs that do not plan at the time of construction to apply, manure, litter, or process wastewater to land under their control: at least 90 days prior to the date the Discharger begins applying manure, litter or process wastewater to land under their control.
- vii. The NMP shall be signed in accordance with Section V.B of Attachment D of this Order, "Signatory and Certification Requirements."
- viii. The Executive Officer will review the NMP to ensure that it contains sufficient information to support identification of site-specific terms that address the requirements of Sections VII.C.3.b.iv(c) and (d). Upon approval by the Executive Officer, the NMP will be made available for public review and comment for 30 days.
 - (a) If there is no objection to the NMP after the public review and comment period, the Executive Officer may issue an authorization letter to the Discharger making the terms of the approved NMP, as identified in Subsection b. ix of this Section VII.C.3, an enforceable part of the Order.

- (b) If a written request for a hearing on the NMP is received within the 30-day public review and comment period, which includes the reason(s) the hearing is being requested (e.g., why the NMP is inadequate), the item will be placed on the next available Colorado River Basin Water Board meeting agenda. Because of the need to comply with certain minimum noticing requirements, placement of this item on the agenda will be at least 30 days from the date when a hearing is requested plus any additional time necessary to follow the administrative procedures involved in preparing for the meeting.
 - (c) If possible, the Colorado River Basin Water Board staff will attempt to resolve the issues of concern by arranging a meeting with the applicant and the interested person(s) requesting the hearing. If an agreement is reached in the meeting, a hearing may not be required. If the agreement reached requires significant changes to be made to the NMP, a new public notice and comment period may be required. If an agreement is not reached with the interested person(s) requesting the hearing, the hearing will proceed as scheduled. After testimony is taken at the hearing, the Colorado River Basin Water Board will decide whether permit coverage shall commence or whether the NMP needs to be revised.
- ix. The approved NMP referenced in the authorization letter issued to the Discharger is incorporated into this Order by reference. The information, protocols, BMPs, and other conditions in the NMP that address the requirements of Section VII.C.3.b.iv(c) constitute terms of the NMP, which are included as terms and conditions of this Order.
- x. The approved NMP shall be fully implemented on the date of permit coverage or upon approval of the NMP. Note that Dischargers may not land apply manure, litter, or process wastewater except in accordance with an NMP approved by the Executive Officer.
- xi. A current copy of the NMP shall be retained on site in accordance with Section IV of Attachment D of this permit, "Standard Provisions – Records," and shall be provided to the Executive Officer upon request.
- xii. The Discharger shall revise the NMP a minimum of once every 5 years. In addition, the Discharger shall revise the NMP more frequently, as necessary, whenever the facility makes a change in how it manages its operation, including the location, amount, method, timing or frequency of land application, so the NMP reflects the current operational characteristics and practices of the CAFO.
 - (a) The Discharger shall submit the revised NMP to the Executive Officer at least 90 days prior to implementation of the change and identify changes from the previous version. The results of annual calculations of the amount of manure, litter, and process wastewater to be applied, conducted as required in Section VII.C.3.b.iv(e), are not required to be submitted to the Executive Officer.

- (b) The Executive Officer will review the NMP to determine whether the NMP revisions necessitate revision to the terms of the NMP incorporated into the permit in accordance with Section VII.C.3.b.ix.
- (c) If revision to the terms is not necessary, the Executive Officer will notify the Discharger. Upon such notification, the Discharger may implement the revised NMP.
- (d) If non-substantial revision to the terms is necessary, the Executive Officer will make the revised NMP publicly available and include it in the permit record, revise the terms of the NMP that are incorporated into the permit, and notify the Discharger and the public of changes to the NMP terms. Upon such notification, the Discharger may implement the revised NMP.
- (e) If substantial revision, as described in Section VII.C.3.b.xii(f), to the terms is necessary, the Executive Officer will notify the public and make the proposed changes and the revised NMP available for public review and comment according to the procedures described in Section VII.C.3.b.viii.
 - If there is no objection to the proposed changes after the public review and comment period, the Executive Officer may issue an authorization letter to the Discharger making the revised terms of the NMP, as identified in Subsection b. ix of this Section VII.C.3, an enforceable part of the Order.
 - If a written request for a hearing on the revised NMP is received within the 30-day public review and comment period, which includes the reason(s) the hearing is being requested (e.g., why the proposed changes to the terms are inadequate), the item will be placed on the next available Colorado River Basin Water Board meeting agenda. Because of the need to comply with certain minimum noticing requirements, placement of this item on the agenda will be at least 30 days from the date when a hearing is requested plus any additional time necessary to follow the administrative procedures involved in preparing for the meeting.
 - If possible, the Colorado River Basin Water Board staff will attempt to resolve the issues of concern by arranging a meeting with the applicant and the interested person(s) requesting the hearing. If an agreement is reached in the meeting, a hearing may not be required. If the agreement reached requires significant changes to be made to the proposed terms, however, a new public notice and comment period may be required. If an agreement is not reached with the interested person(s) requesting the hearing, the hearing will proceed as scheduled. After testimony is taken at the hearing, the Colorado River Basin Water Board will decide whether implementation of the revised NMP may commence or whether the NMP needs additional revision.

- The Colorado River Basin Water Board will notify the Discharger of any additional revisions to the NMP that may be required in order to approve the substantial revision to the terms of the NMP incorporated into the Order. The Colorado River Basin Water Board will notify the Discharger and the public of the final decision concerning revisions to the terms and conditions of the permit. Upon notification of approval, the discharger may implement the revised NMP.
- (f) The changes that are considered substantial changes to the terms of an NMP incorporated into this Order include, but are not limited to, the following:
- Addition of new land application areas not previously included in the Discharger's NMP. A land application area that is addressed by the approved NMP of another Discharger covered under this Order may be added and would not be considered a substantial change if the Discharger applies manure, litter, and process wastewater to that land application area in accordance with the terms of the approved NMP that includes that land application area.
 - Any changes to the field-specific maximum amount of plant available nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the NMP, determined as required by Section VII.C.3.b.iv(c).
 - Addition of any crop or other use not included in the terms of the Discharger's approved NMP and corresponding field-specific rates of application expressed in accordance with Section VII.C.3.b.iv(c).
 - Changes to site-specific components of the Discharger's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the U.S., determined in accordance with the Technical Standards for Nutrient Management in Attachment C.

c. Engineered Waste Management Plan (EWMP)

- i. The Discharger shall develop and fully implement an EWMP approved by the Executive Officer in accordance with Attachment B. The EWMP shall be submitted to the Colorado River Basin Water Board's Executive Officer for approval and implemented as follows:
 - (a) For new CAFOs, after the adoption date of this Order, the EWMP shall be submitted with the NOI for permit coverage in accordance with the notification requirements in Section II. The EWMP shall be implemented within 90 days following plan approval by the Executive Officer.

(b) For existing CAFOs that did not submit or revise the EWMP as required by the previous Order R7-2013-0800, or whose EWMP approved under Order R7-2013-0800 does not reflect current operating conditions, the EWMP shall be submitted no later than the effective date of this Order and fully implemented within 90 days following plan approval by the Executive Officer.

- ii. The EWMP shall be prepared by a registered professional engineer in the State of California, or other qualified individual, in accordance with the guidelines specified in Attachment B of this Order. The Executive Officer is hereby authorized to make necessary revisions to the guidelines for the preparation of an EWMP outlined in Attachment B.

d. Composting Operations

Dischargers that operate composting operations onsite at the permitted facility and sell or give away more than 5,000 cubic yards of compost per year must enroll in the State Water Board's *General Waste Discharge Requirements for Composting Operations* (Order WQ 2015-0121-DWQ, amended by Order 2020-0012-DWQ) (Composting General Order) or obtain individual waste discharge requirements from the Colorado River Basin Water Board.

Dischargers that operate composting operations onsite at the permitted facility and sell or give away less than 5,000 cubic yards of compost per year shall implement appropriate management practices to prevent the discharge of pollutants from all composting operations and the following:

- i. Public contact with waste shall be precluded through such means as fences, signs, and other alternatives approved by the Executive Officer.
- ii. Stockpiling and composting areas shall be at least⁶:
 - (a) 50 feet from property lines;
 - (b) 500 feet from domestic supply wells;
 - (c) 100 feet from non-domestic supply wells;
 - (d) 100 feet from any surface water bodies, including ephemeral streams but excluding Imperial Valley Drains; and
 - (e) 50 feet from Imperial Valley Drains.
- iii. Unless a composting site survey was submitted under Order R7-2013-0800 that reflects the current site conditions, within 90 days of the effective date of this Order, the Discharger shall conduct a survey of the composting site and submit the results of this survey to the Executive Officer, to assure that the site

⁶ Alternative compliance setback requirements are described under Section V.C.2.b.iv.

has been properly graded and is adequately designed and constructed to retain all runoff from the composting operations and precipitation from a 100-year, 24-hour storm. Survey results shall be included in an updated topographical map of the site, extending one-quarter mile beyond the property boundary. In accordance with the requirements for stormwater pollution prevention under 40 C.F.R. parts 122, 123, and 124, the map shall show, at a minimum, the following:

- (a) The property boundary and all adjacent surface water bodies, including ephemeral streams;
- (b) Specific areas of the site used for on-loading and off-loading, stockpiling and composting, and curing or storage of compost;
- (c) Site access road and all on-site roads;
- (d) Grades and elevations; and
- (e) Berms and/or water storage basins.

In addition to the above, the survey shall include a statement from a California-registered civil engineer certifying that the site is adequately graded and constructed to retain all runoff from the composting operations and precipitation from a 100-year, 24-hour storm. If the features listed in Subsections iii(a) through (e) above are identified in a map included in the facility's approved EWMP, the map need not be recreated to satisfy this requirement.

- iv. Annually, prior to the first day of November, any necessary erosion control measures shall be implemented and any necessary construction, maintenance, and/or repairs of drainage control facilities shall be completed to prevent erosion or flooding of the site.
- v. The Discharger shall take adequate steps to ensure that there is no ponding of water at the site and that raw materials and/or compost are confined to storage and treatment areas.
- vi. The Discharger shall immediately notify Colorado River Basin Water Board staff of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or precipitation and drainage control structures.
- vii. The Discharger shall immediately remove and relocate any wastes which are discharged at this site in violation of these requirements.
- viii. The Discharger shall maintain trucking manifests onsite in accordance with the requirements in Section X.E of the MRP.

- ix. Within 90 days of the effective date of this Order the Discharger shall sever and plug any existing subsurface tile drainage system in the composting operation, treatment, and storage areas.
- x. One hundred eighty (180) days prior to cessation of the composting operations at the facility, the Discharger shall submit a proposal for assessing the extent of contamination caused by the operations of the facility, including, but not limited to assessing any contamination of soil, groundwater and onsite ponds. Within 90 days of approval of the proposal by the Executive Officer, the Discharger shall submit to the Executive Officer results of the contamination assessment and a closure plan for Executive Officer approval. The closure plan shall be implemented immediately after Executive Officer approval.
- xi. The Discharger shall conduct monitoring in accordance with Sections IX.E and IX.F of the MRP.

4. Construction, Operation and Maintenance

- a. Retention ponds and manured areas at CAFOs in operation since November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Facilities existing before November 27, 1984 which are protected against 100-year peak stream flows, shall continue to provide such protection. Facilities built after November 27, 1984, 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 100 years. (Cal. Code Regs., tit. 27, § 22562(c).)
- b. Retention ponds shall be lined with or underlain by soil that contains at least ten (10) percent clay and not more than ten (10) percent gravel or artificial materials or materials with equivalent impermeability. These ponds shall also be sited, designed, constructed, and operated to ensure that wastes will be a minimum of five (5) feet above the highest anticipated elevation of underlying groundwater.
- c. No new containment structures shall be constructed of manure, and manure shall not be used to improve or raise existing containment structures.
- d. Ponds shall be managed to prevent breeding of mosquitoes, in particular:
 - i. An erosion control program shall ensure that small coves and irregularities are not created around the perimeter of the water surface.
 - ii. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - iii. Dead algae, vegetation, and debris shall not accumulate on the water surface.
- e. All composting operations at the permitted facility shall comply with the laws of municipalities, counties, drainage districts, air quality control board, and other

local agencies, including compliance with the applicable requirements of the county public health department for compostable materials handling operations or facilities.

5. Antidegradation Analysis for a New Facility or an Existing Facility that will undergo Significant Expansion⁷

A new facility or an existing facility that will undergo significant expansion⁸ within the next 5 years must conduct an antidegradation analysis and submit a report of that analysis to the Colorado River Basin Water Board's Executive Officer for review and approval. The antidegradation analysis report shall be developed in accordance with the state antidegradation policy (Resolution No. 68-16) and the federal antidegradation policy (40 C.F.R. § 131.12). The report shall consider any potential impacts the discharge may have on the receiving water quality and the receiving water body's designated beneficial uses, as defined in the Colorado River Basin Water Board's Basin Plan. In considering potential impacts to receiving groundwaters, the report shall address the soil types underlying the new or expanded facility, including the permeability of the soils and other soil properties relevant to the potential for wastewater to be discharged to groundwater, the soils' suitability for construction of the proposed facilities, the depth to groundwater, and the locations of wells and other potential conduits to groundwater. In addition, the report shall provide: information on the quality of the proposed discharge; an evaluation of the potential impacts of the discharge; CEQA documentation for the proposed project; a summary that identifies whether the proposed discharge will result in degradation of water quality; and a certification that satisfies both the federal and state antidegradation policies.

6. Other Special Provisions

a. Transfer of Manure, Litter, and Process Wastewater – Applicable to Large CAFOs

In cases where CAFO-generated manure, litter, or process wastewater is sold, given away or otherwise transferred to other persons (i.e., for use or disposal on land not under the control of the permitted CAFO), the Discharger shall comply with the following conditions:

- i. Provide the recipient(s) with the most current representative information on the nutrient content of the manure, litter, and/or process wastewater.

⁷ Sections III.C.5 and IV.D.2 of the Fact Sheet address antidegradation requirements as they apply to existing facilities.

⁸ "Significant expansion" shall be considered total replacement of process or production equipment or facilities or construction of new processes, production equipment, or facilities that are substantially independent of the existing facilities. In determining whether new processes or facilities are substantially independent, the Executive Officer may consider factors such as the extent to which the new facility is integrated with the existing facility and the extent to which the new facility is engaged in the same general type of activity as the existing facility.

- (a) Manure, litter, and process wastewater must be tested for nitrogen and phosphorus at least annually; and
 - (b) Sampling and analysis must be conducted in accordance with the requirements of Section IX.C of the MRP and the specifications in the Technical Standards for Nutrient Management (Attachment C).
- ii. Retain the applicable records specified in Section X.A of the MRP, Manure Transfer Records, for transfer of manure, litter and process wastewater. In accordance with Section IV of Attachment D, “Standard Provisions – Records,” these records shall be maintained on-site for a period of 5 years and submitted to the Colorado River Basin Water Board upon request.

7. Required Submittals, Reports, and Compliance Schedules

- a. **Deliverables and Due Dates.** The Discharger shall comply with the following compliance schedules as summarized in Table 3:

Table 3. Deliverables and Due Dates

Deliverable	Description (Permit Reference)	Due Date
Notice of Intent (NOI) II.A.1	Existing Enrollees must submit a completed NOI form for Existing CAFOs enrolled under Order R7-2013-0800 (Attachment K) to enroll under this Order.	April 1, 2022
“	New Enrollees must submit a completed NOI form (USEPA Form 2B) and the appropriate filing fee to enroll under this Order.	<i>New CAFOs that do not propose to apply manure:</i> At least 30 days before the start of permit coverage ⁹ <i>New CAFOs that propose to apply manure:</i> At least 90 days before the start of permit coverage
Engineered Waste Management Plan (EWMP) II.A.1, VII.C.3.c, Attachment B	Existing Enrollees have submitted an EWMP to the Colorado River Basin Water Board.	<i>EWMP submitted for Order R7-2013-0800 reflects current operating conditions:</i> N/A <i>EWMP submitted for Order R7-2013-0800 does not reflect current operating conditions:</i> April 1, 2022

⁹ Permit coverage is required at the time of a discharge from a CAFO.

Deliverable	Description (Permit Reference)	Due Date
“	New Enrollees must submit an EWMP for the Facility.	At least 30 days before the start of any new discharge
“	Dischargers planning modifications to the CAFO that would result in a material change in the discharge must submit a revised EWMP.	Before modifications are implemented
Nutrient Management Plan (NMP) II.A.1, V.C.2.a, VII.C.3.b, Attachment C	All Enrollees that land apply manure, litter, or process wastewater must develop an NMP.	<i>Existing CAFOs:</i> As soon as possible but no later than April 1, 2022 ¹⁰ <i>New CAFOs:</i> With the NOI <i>Enrolled CAFOs that did not plan to land apply at the time of enrollment:</i> At least 90 days prior to commencing land application
Composting Site Survey VII.C.3.d.iii	Dischargers with onsite composting operations that did not submit a site survey under R7-2013-0800 must submit the results of the composting site survey.	Within 90 days of the effective date of Order
Erosion Control Measures	Dischargers must implement necessary erosion control measures and complete any necessary construction, maintenance, and/or repairs of drainage control facilities to prevent erosion or flooding of the site	Annually, prior to the first day of November
NMP VII.C.3.b.x	All enrollees that land apply manure, litter, or process wastewater must timely implement requirements of approved NMP.	Within 30 days of approval
Revised NMP VII.C.3.b.xii	Changes to the NMP must be submitted to the Executive Officer.	At least 90 days before implementing the change
Discharge Notification Report MRP XI.D	The Discharger shall report any noncompliance that may endanger human health or the environment.	<i>Orally:</i> Immediately <i>Certification of notification of appropriate agency with jurisdiction over the affected water bodies:</i> Within 24 hours after becoming aware of a

¹⁰ The NMP must be reviewed by the Executive Officer and the public, approved, and the terms incorporated into the permit prior to land application of manure, litter, or process wastewater.

Deliverable	Description (Permit Reference)	Due Date
		discharge to a drainage channel or a surface water <i>Written:</i> Within 5 days of becoming aware of the incident
Transfer of Ownership – Order Transmittal letter and Notice of Termination (NOT) VII.A.2.c	For transfers of ownership, the Discharger must: <ul style="list-style-type: none"> • Transmit a copy of this Order to the succeeding owner/operator and forward a copy of the transmittal letter to the Colorado River Basin Water Board. • Notify the succeeding owner/operator of the requirement to obtain coverage under the General Permit. • Submit a NOT 	Prior to the change in ownership or management
Report of Facility Modifications VII.C.3.c.iv	For modifications that would result in material change in the quality or quantity of discharges or the location of discharge, the Discharger must report all pertinent information in writing and obtain revised requirements as needed.	Prior to modifications
Annual Report Attachment E, XI.C; Attachment G	Each enrollee must submit an Annual Report that includes, if applicable: <ul style="list-style-type: none"> • Annual Report of Animal Waste Discharge • Composting Inventory • Land Application of Manure, Litter, and Process Wastewater Report • Certification 	Annually on February 15
Antidegradation Analysis for New Facility or Significant Expansion of Existing Facility VII.C.4.f	Discharges that will undergo significant expansion within the next 5 years must submit an antidegradation analysis report.	Prior to start of construction of significant changes to the facility
Groundwater Trend Monitoring Work Plan VII.C.2.a	The Discharger should submit a proposed work plan for conducting the Groundwater Trend Monitoring, as required in Section VII.C.2.a and the Attachment E.	Within 24 months of the effective date of this Order or no later than April 1, 2024, the Discharger shall submit a work plan that outlines proposed groundwater trend monitoring with an associated QAPP.

VIII. COMPLIANCE DETERMINATION

Compliance determination with the terms of this Order shall be based on the following:

1. Periodic inspections by Colorado River Basin Water Board staff;
2. Evaluation of the annual report and other information submitted according to the Monitoring and Reporting Program of this Order; and
3. Any other information deemed necessary by the Executive Officer.

ATTACHMENT A – DEFINITIONS

Agricultural Material

Agricultural material means waste material of plant or animal origin, which results directly from the conduct of agriculture, animal husbandry, horticulture, aquaculture, silviculture, vermiculture, viticulture and similar activities undertaken for the production of food or fiber for human or animal consumption or use, which is separated at the point of generation, and which contains no other solid waste. With the exception of grape pomace or material generated during nut or grain hulling, shelling, and processing, agricultural material has not been processed except at its point of generation and has not been processed in a way that alters its essential character as a waste resulting from the production of food or fiber for human or animal consumption or use. Material that is defined in California Code of Regulations, title 14, section 17852 as “food material” or “vegetative food material” is not agricultural material. Agricultural material includes, but is not limited to, manures, orchard and vineyard prunings, grape pomace, and crop residues.

Animal Feeding Operation (AFO)

AFO means 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

Application means the Notice of Intent (NOI) to Comply with the Terms of the General Permit to Discharge Wastes Associated with Confined Animal Feeding Operations.

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:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Best Management Practices (BMPs)

BMPs are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and non-point discharges including stormwater. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Biosolids

Biosolids refer to non-hazardous sewage sludge as defined in 40 C.F.R. § 503.9.

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.

Compost

Compost means compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

Compostable Material

Compostable material is defined as any organic material that when accumulated will become active compost as defined in California Code of Regulations, title 14, section 17852(a)(1).

Concentrated Animal Feeding Operation (CAFO)

CAFO means an AFO which is defined as a large CAFO or medium CAFO by 40 C.F.R. § 122.23 (b)(4) and (6), or that is designated as a CAFO.

Detected, but Not Quantified (DNQ)

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

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Existing Discharger

Any Discharger that is not a new Discharger.

Fecal Coliform

Fecal coliform means the bacterial count (Parameter 1) at 40 C.F.R. § 136.3 in Table 1A, which also cites the approved methods of analysis.

Finished Compost

Finished compost is defined as a stabilized compost in which any organic material that has undergone pathogen reduction, as described in California Code of Regulations, title 14, section 17868.3 of, and has reached a stage of reduced biological activity, as indicated by reduced temperature and rate of respiration below that of active compost.

Food Material

Food material means a waste material of plant or animal origin that results from the preparation or processing of food for animal or human consumption and that is separated from the municipal solid waste stream. Food material includes, but is not limited to, food waste from food facilities as defined in California Health and Safety Code section 113789 (such as restaurants), food processing establishments as defined in Health and Safety Code section 111955, grocery stores, institutional cafeterias (such as, prisons, schools and hospitals), and residential food scrap collection. Food material does not include any material that is required to be handled only pursuant to the California Food and Agricultural Code and regulations adopted pursuant thereto.

Grab Sample

Grab sample means a sample which is taken from a waste stream on a one-time basis without consideration of the flow rate of the waste stream and without consideration of time.

Green Material

Green material means any plant material except food material and vegetative food material that is separated at the point of generation, contains no greater than 1.0 percent of physical contaminants by dry weight, and meets the requirements of California Code of Regulations, title, 14, section 17868.5. Green material includes, but is not limited to, tree and yard trimmings, untreated wood wastes, natural fiber products, wood waste from silviculture and manufacturing, and construction and demolition wood waste. Green material does not include food material, vegetative food material, biosolids, mixed material, material separated from commingled solid waste collection or processing, wood containing lead-based paint or wood preservative, or mixed construction and demolition debris.

Green Waste

Green waste consists of or contains waste from plants, including leaves, clippings, cuttings, grass trimmings, weeds, shrubbery, bushes, trees, residential or community garden wastes, and untreated wood wastes.

Infeasible

Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Land Application

Land application means the application of manure, litter, or process wastewater onto or incorporated into the soil primarily for beneficial reuse purpose or nutrient recycling. Land application does not include the use of process wastewater for dust control within the production area including on alleys or roadways used to access structures included in the definition of "production area," provided any runoff from those alleys or roadways would be contained within the production area.

Land Application Area

Land application area means land under the operational control of a CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied.

Large CAFO

Large CAFO means an AFO that stables or confines as many as or more than the numbers of animals specified in any of the following categories: (i) 700 mature dairy cattle, whether milked or dry; (ii) 1,000 veal calves; (iii) 1,000 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs; (iv) 2,500 swine each weighing 55 pounds or more; (v) 10,000 swine each weighing less than 55 pounds; (vi) 500 horses; (vii) 10,000 sheep or lambs; (viii) 55,000 turkeys; (ix) 30,000 laying hens or broilers, if the AFO uses a liquid manure handling system; (x) 125,000 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system; (xi) 82,000 laying hens, if the AFO uses other than a liquid manure handling system; (xii) 30,000 ducks (if the AFO uses other than a liquid manure handling system); or (xiii) 5,000 ducks (if the AFO uses a liquid manure handling system).

Liquid Manure Handling System

Liquid manure handling system means a system that collects and transports or moves waste material with the use of water, such as in washing of pens and flushing of confinement facilities. This would include the use of water impoundments for manure and/or wastewater treatment.

Load Allocation (LA)

The portion of a receiving water's total maximum daily load that is allocated to one of its non-point sources of pollution or to natural background sources.

Manure

Manure is defined to include manure, litter, bedding, compost and raw materials or other materials commingled with manure or set aside for land application or other use.

Median

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Medium CAFO

Medium CAFO means any AFO that stables or confines as many or more than the numbers of animals specified in any of the following categories: (i) 200 to 699 mature dairy cattle, whether milked or dry cows; (ii) 300 to 999 veal calves; (iii) 300 to 999 cattle other than mature dairy cows or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs; (iv) 750 to 2,499 swine each weighing 55 pounds or more; (v) 3,000 to 9,999 swine each weighing less than 55 pounds; (vi) 150 to 499 horses, (vii) 3,000 to 9,999 sheep or lambs, (viii) 16,500 to 54,999 turkeys, (ix) 9,000 to 29,999 laying hens or broilers, if the AFO uses a liquid manure handling system; (x) 37,500 to 124,999 chickens (other than laying hens), if the AFO uses other than a liquid manure handling system; (xi) 25,000 to 81,999 laying hens, if the AFO uses other than a liquid manure handling system; (xii) 10,000 to 29,999 ducks (if the AFO uses other than a liquid manure handling system); or (xiii) 1,500 to 4,999 ducks (if the AFO uses a liquid manure handling system) and either one of the following conditions are met (a) pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or (b) pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B, revised as of May 18, 2012.

Minimum Level (ML)

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Municipality

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA.

New Discharger

New Discharger includes any new CAFO from which there will be a discharge of pollutants. Any building, structure, facility, or installation: (a) From which there is or may be a discharge of pollutants; (b) That did not commence the discharge of pollutants at a particular site prior to April 14, 2003; (c) Which is not a new source; and (d) Which has never received a finally effective NPDES permit for discharges at that site.

New Source

New Source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- For CAFOs that confine dairy cows and cattle other than veal calves, after April 12, 2003.
- For CAFOs that confine swine, poultry, or veal calves, after January 19, 2009.

A building, structure, facility, or installation constructed after the applicable date above is a new source if:

- (i) It is constructed at a site at which no other source is located; or
- (ii) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
- (iii) Its processes are substantially independent of an existing source at the same site. In determining whether these processes are substantially independent, the Director shall consider such factors as the extent to which the new facility is integrated with the existing plant; and the extent to which the new facility is engaged in the same general type of activity as the existing source.

Construction on a site at which an existing source is located results in a modification subject to 40 C.F.R. § 122.62 rather than a new source (or a new discharger) if the construction does not create a new building, structure, facility, or installation meeting the criteria (i), (ii), or (iii), above, but otherwise alters, replaces, or adds to existing process or production equipment.

For purposes of determining whether a discharger is a new source, “facility” means buildings, structures, process or production equipment or machinery which form a permanent part of the new source and which will be used in its operation, if these facilities or equipment are of such value as to represent a substantial commitment to construct. It excludes facilities or equipment used in connection with feasibility, engineering, and design studies regarding the source or water pollution treatment for the source.

Not Detected (ND)

Sample results which are less than the laboratory’s MDL.

Notice of Intent (NOI)

NOI is a form submitted by the owner/operator applying for coverage under a general permit. It requires the applicant to submit the information necessary for adequate program

implementation, including, at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, and the receiving stream(s). (40 C.F.R. § 128.28(b)(2)(ii).)

Process Wastewater

Process wastewater means water directly or indirectly used in the operation of the CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with or is a constituent of raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.

Production Area

Production area means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal containment area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated stormwater. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

Publicly Owned Treatment Works (POTW)

POTW means a treatment works as defined in 40 C.F.R. part 212, which is owned by a State or municipality. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in 40 C.F.R. § 502(4), which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Quality Assurance (QA)

Quality assurance is a practice in toxicity testing that addresses all activities affecting the quality of the final effluent toxicity data. QA includes practices such as effluent sampling and handling, source and condition of test organisms, equipment condition, test conditions, instrument calibration, replication, use of reference toxicants, recordkeeping, and data evaluation.

Quality Control (QC)

Quality control is the set of more focused, routine, day-to-day activities carried out as part of the overall QA program.

Report of Waste Discharge

For the purposes of this General Order, references to the Report of Waste Discharge (ROWD) shall include the Notice of Intent and any other application information submitted to the Colorado River Basin Water Board.

Sample

Sample is a representative portion of a specific environmental matrix that is used in testing.

Setback

Setback means a specified distance from waters of the United States or potential conduits to waters of the United States where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: Open drainage ditches, tile drainage lines, intake structures, sinkholes, and agricultural well heads.

Sewage Sludge

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works. Sewage sludge that has been classified as hazardous shall be disposed in accordance with 40 C.F.R. part 261.

Significant Storm Event

Significant storm event means a storm event which results in continuous discharge of stormwater for a minimum of one hour, or intermittent discharge of stormwater for a minimum of three hours in a 12-hour period.

Small CAFO

Small CAFO means an AFO that is designated as a CAFO and is not a medium or large CAFO.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in the Colorado River Basin Water Board's Basin Plan.

Standard Deviation (σ)

Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Statistic

Statistic is a computed or estimated quantity such as the mean, standard deviation, or Coefficient of Variation.

Technology-Based Effluent Limitation

A technology-based effluent limitation is a permit limit for a pollutant that is based on the capability of a treatment method to reduce the pollutant to a certain concentration.

The Act

The Act means Federal Water Pollution Control Act as amended, also known as the Clean Water Act (CWA) as amended, which is set forth at 33 U.S.C. § 1251 et seq.

Total Maximum Daily Load (TMDL)

A TMDL is the sum of the individual waste load allocations and load allocations for receiving water. A margin of safety is included with the two types of allocations so that any additional loading, regardless of source, would not produce a violation of water quality standards.

Treatment Works

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Vegetated Buffer

Vegetated buffer means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching waters of the United States.

Waste Load Allocation (WLA)

The portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution.

Waters of the United States

Waters of the United States means waters as defined at 40 C.F.R. § 122.2.

ATTACHMENT B – REQUIREMENTS FOR ENGINEERED WASTE MANAGEMENT PLAN

The Engineered Waste Management Plan shall be prepared by a registered professional engineer in the State of California, or other qualified individual, and shall address general requirements and Item Nos. 1 through 7, below.

GENERAL REQUIREMENTS:¹

- I. Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
 - II. Ensure proper management of mortalities (*i.e.*, dead animals) to ensure that they are not disposed of in a liquid manure, stormwater, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;
 - III. Ensure that clean water is diverted, as appropriate, from the production area;
 - IV. Prevent direct contact of confined animals with waters of the United States; and
 - V. 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.
1. A site plan that specifies:
 - a. The address and legal description of the property (*i.e.*, Assessor's Parcel Number and Township, Range, Section(s) and Baseline Meridian);
 - b. The name, address, and telephone number of the owner and operator of the property;
 - c. Total gross acreage of the property, showing property boundaries and all existing and proposed facilities including buildings, storage areas, manure area, berms/levees, holding ponds, pumping facilities, culverts, drainage easements, disposal areas, croplands (whether farmed by the owner/operator or another party), etc.;
 - d. Present and proposed animal population (numbers of each: milk cows, dry cows, calves, heifers, etc.) and volume of washwater generated; and
 - e. Overall site dimensions, contours, a vicinity map, north arrow, and the date the plan was prepared. The plan should be drawn on a standard blueprint format using an appropriate scale that shows sufficient details of all facilities.
 2. Engineering calculations showing that containment structures are able to retain all wastewater generated from the facility, including all of the precipitation on and drainage through waste areas (*e.g.*, manured areas) resulting from storms of up to and including the 25-year, 24-hour storm or other design storm as required by the effluent limitations in Part V of the permit.
 3. Engineering data showing that:

¹ The first five of nine minimum elements required in 40 C.F.R. section 122.42(e)(1) are not directly related to land application of manure, litter, and process wastewater, and are therefore included in the EWMP.

- a. Containment structures are lined with or underlain by soil that contains at least 10 percent clay and not more than 10 percent gravel or artificial materials of equivalent permeability; and
- b. Containment structures are sited, designed, constructed, and operated to ensure that bottoms are at a minimum of five feet above the highest anticipated elevation of underlying groundwater.

For existing CAFOs whose structures fail to meet the soil and siting criteria, the EWMP shall also include proposed measures to ensure the structures meet the soil and siting criteria. The measures shall include a description of the proposed construction materials and compaction method to be used to build liners, berms/levees, and other containment facilities. The proposed measures shall demonstrate that seepage from containment structures will not exceed 1×10^{-6} cm/sec.

4. An engineering report (with a map to scale, calculations, and specifications as necessary), showing whether the retention ponds and manured areas at the site are either:
 - a. Protected from inundation or washout by overflow from any stream channel during 20-year peak storm flow if the site has been in operation on or before November 27, 1984; or
 - b. Protected from inundation or washout by overflow from any stream channel during 100-year peak storm flow if the site has been in operation after November 27, 1984.

For existing concentrated animal feeding operations (CAFOs) whose ponds and manure areas fail to meet the appropriate flood protection criteria based on when the facility started operations, the report shall also include proposed measures to protect the ponds and manured areas against the corresponding flood event.

5. An operational and maintenance plan to ensure that:
 - a. All precipitation and surface drainage from outside manured areas, including that collected from roofed areas resulting from up to and including a 25-year, 24-hour storm or other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of Section V.B of the Order, shall be diverted away from the manured areas, unless such drainage is fully contained.
 - b. Ponds shall be managed to prevent breeding of mosquitoes, erosion, and excess weeds, algae, and vegetation;
 - c. Holding ponds provide maximum pond capacity prior to winter storms; periodic dredging, etc. animals at the facility shall be prevented from entering surface waters within the confined areas; and
 - d. There shall be no discharge to surface waters from containment structures, unless chronic, catastrophic or cumulative rainfall causes overflow from a storage facility designed, constructed, maintained, and operated to contain all process generated wastewater plus the runoff from a 25-year, 24-hour storm, or other design storm event used in sizing the impoundments at new source swine, poultry, and veal calf CAFOs for zero discharge.
6. Animal mortalities:

- a. Animal mortalities shall be handled in such a way as to prevent the discharge of pollutants to waters of the state.
 - b. All dead animals shall be disposed of off-site within three (3) days according to local and state regulations.
 - c. Records of mortality management shall be kept for five years.
7. A proposed plan for the handling and disposal of manure. The manure handling and disposal plan shall be consistent with the facility's Nutrient Management Plan (NMP), as applicable. Manure must be analyzed a minimum of once annually for sodium, nitrogen and phosphorus content.

ATTACHMENT C – TECHNICAL STANDARDS FOR NUTRIENT MANAGEMENT PLAN

Dischargers that land apply manure, litter, compost, or process wastewater shall comply with the following technical standards for nutrient management.

I. Sampling Requirements

The Discharger shall use sample containers and sample handling, storage, and preservation methods that are accepted or recommended by the selected analytical laboratory or, as appropriate, in accordance with approved U.S. Environmental Protection Agency (USEPA) analytical methods. The following sampling procedures are standards currently recognized by the Colorado River Basin Water Board. When special procedures appear to be necessary at an individual facility, the Discharger may request approval of alternative sampling procedures for nutrient management. The Executive Officer will review such requests and if adequate justification is provided, may approve the requested alternative sampling procedures.

II. Soil Sampling and Analysis

1. At least once every 5 years, commencing with the first full calendar year regulated by the Order, the Discharger shall collect and analyze representative soil samples from all land application areas under the Discharger's control where process wastewater and/or manure is applied. Soil samples shall be collected following harvest of a crop and before nutrients are added for the following crop.
2. Soil samples shall be collected as follows:
 - a. Samples shall be collected from each land application area receiving manure and/or process wastewater. A single sample shall represent no more than 10 acres; samples shall be composited for every 80 acres. Samples shall be composited by:
 - i. Placing equal volumes of soil from each 10-acre sample site for each land application area and sample depth, in a clean plastic bucket. Moist soils may be air dried until they can be mixed easily.
 - ii. Thoroughly mixing the sample and placing at least one pint of the composite sample in a clean plastic container to be shipped to the laboratory. The laboratory should be consulted for the exact amount of sample and the sample container needed.
 - b. All samples from the same depth interval for all sites within each land application area shall be composited for analyses.
 - i. For land application areas to be planted in vegetables, samples shall be collected from a depth of 0 to 12 inches.
 - ii. For land application areas to be planted in field crops, subsamples shall be collected from 0 to 24 inches. Samples from each site shall be split into two sections representing depth intervals 0 to 12 inches and 12 to 24 inches.

- c. Soil samples shall be collected with soil probes or augers from a minimum of 10 sites in each land application area and composited as described below.
 - i. At least three of the 10 samples shall be from the upper third of the land application area.
 - ii. In fields where soil texture, crop yield, or other soil-related factors vary, at least 10 samples shall be collected from each different area and composites from each area shall be analyzed separately.
 - iii. Sample locations in each land application area shall be recorded on a sketch and/or the latitude and longitude of each sample location shall be documented for future sampling consistency.
 - iv. Soil probes or augers shall be cleaned thoroughly between samples by wiping clean with a damp cloth.

III. Manure Sampling

Manure samples shall be collected as follows:

1. At least 10 equal-size samples of manure shall be collected from various portions of the manure pile, with most samples from the center. No more than two samples shall be collected from the surface and two from the bottom.
2. The 10 samples shall be placed in a container and mixed well before a subsample is placed in a clean container provided by or approved by the analytical laboratory that will receive the samples.
3. Sample containers that are reused shall be washed with soap and thoroughly rinsed with clean (tap) water.
4. Compost and litter may be sampled using the protocols for solid manure sampling. Alternative sampling methods for compost or litter shall be documented in the nutrient management plan (NMP).

IV. Process Wastewater Sampling

Process wastewater composite samples shall be collected as:

1. A representative composite sample of process wastewater shall be prepared based on a minimum of three time-series samples collected during a discharge or pumping event that are representative of the beginning, middle, and end of the process wastewater discharge or pumping event. These samples shall be combined in a single container, mixed, and poured into a clean container provided by or approved by the laboratory that will receive the samples. Containers that are reused shall be washed with soap and thoroughly rinsed with clean (tap) water.

2. The samples shall be collected at a point that is prior to any dilution or blending with irrigation water and shall be representative of the process wastewater applied to the land application area.

V. Analytical Requirements

1. Analyses of soil samples shall be conducted using methods utilized by the North American Proficiency Testing (NAPT) program or accepted by the University of California (available on the Internet at <https://anlab.ucdavis.edu/methods-of-analysis>).
2. Analyses of manure (including compost and litter) shall be conducted by: methods utilized by the Manure Analyses Proficiency (MAP) Testing Program or accepted by the University of California; and laboratories participating in the MAP Testing Program or other programs whose tests are accepted by the University of California.
3. Analyses of process wastewater samples shall be conducted using methods described by the MAP Testing Program or California Department of Health Services Environmental Laboratory Analytical Procedures accredited for wastewater analyses.

VI. Crop Nutrient Requirements

Each crop's nutrient requirements for nitrogen and phosphorus shall be determined based on recommendations from the University of California Cooperative Extension's Guidelines for Vegetable Crops – Bulletin 104-V (available for purchase - see <http://ceimperial.ucanr.edu/files/131143.doc>) or Guidelines for Field Crops – Bulletin 104-F (available for purchase – see <http://ceimperial.ucanr.edu/files/131142.docx>), or from historic crop nutrient removal. Nutrient requirements based on historic crop nutrient removal must be clearly documented in the Nutrient Management Plan (NMP). Alternative sources for crop nutrient requirements, including phosphorus recommendations based on soil test phosphorus levels, if required, may be proposed by clearly documenting the recommendations and the source of the recommendations in the NMP.

VII. Available Nutrients

1. A nutrient budget for nitrogen shall be prepared that considers all potential sources of nutrients including, but not limited to animal manure and organic byproducts, wastewater, commercial fertilizer, crop residues, legume credits, and irrigation water. A nutrient budget for phosphorus is required for fields rated "Medium" or higher risk using the Phosphorus Index.
2. Nutrient values of soil, manure, compost, litter, process wastewater, and irrigation water shall be determined based on laboratory analysis. "Book values" for manure, compost, litter, and process wastewater may be used for planning of first year application(s) during initial development of the NMP if necessary. Acceptable book values are those values recognized by American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California that accurately estimate the nutrient content of the material. The nutrient content of commercial fertilizers

shall be derived from the published values certified by the California Department of Food and Agriculture.

3. Nutrient credits from previous legume crops shall be determined using values based on University of California's Manure Technical Guide Series for Crop Management Professionals, *Legume N Credit for Crops Following Alfalfa* published in December 2009 (<http://manuremanagement.ucdavis.edu/files/134364.pdf>). For legumes other than alfalfa, nutrient credits shall be determined by methods acceptable to the University of California Cooperative Extension, NRCS, or a specialist certified in preparing NMPs and the methods and values used shall be documented in the NMP.

VIII. Nutrient Application Rates

General

1. NMPs shall specify the form, source, amount, timing, and method of application of nutrients on each field to minimize nitrogen and/or phosphorus movement to surface and/or groundwaters to the extent necessary to meet the provisions of the Order.
2. Where crop material is not removed from the field, waste applications are not allowed. For example, if a pasture is not grazed or mowed (and cuttings removed from the field), waste shall not be applied to the pasture.
3. Manure and/or process wastewater will be applied to the field for use by the crop(s) covered by the NMP only to the extent that soil tests indicate a need for nitrogen application.
4. Nutrient application rates shall not attempt to approach a site's maximum ability to contain one or more nutrients through soil adsorption. Excess applications or applications that cause soil imbalances should be avoided. Excess manure nutrients generated by the Discharger shall be handled by export to a good steward of the manure, or the development of alternative uses.
5. Planned rates of nutrient application shall be determined based on soil test results, nutrient credits, manure and process wastewater analysis, crop requirements and growth stage, seasonal and climatic conditions, and use and timing of irrigation water.
 - a. For purposes of calculating nutrient credits, mineralization rates for prior manure applications shall be determined using the values provide in Tables C-1 and C-2. Alternative values may be used if they are recognized by ASABE, the NRCS, and/or the University of California. Alternative mineralization rates and the source of the alternative rates must be documented in the NMP and are subject to approval of the Executive Officer.

Table C-1. Mineralization rates for nitrogen – dairy manure

Waste and nitrogen content	Years after initial application		
	1	2	3
	Percent available ¹ (percent of original N applied, accumulative)		
Fresh bovine waste, 3.5% N	75	84	85.6
Dry corral manure, 2.5% N	40	55	57.7
Dry corral manure, 1.5% N	35	44.7	47.2
Dry corral manure, 1.0% N	20	28	29.4

Table C-2. Mineralization rates for nitrogen – other manure types

Waste and management	Years after initial application		
	1	2	3
	Percent available ² (percent of original N applied, accumulative)		
Fresh poultry manure	90	92	93
Fresh swine or cattle manure	75	79	81
Layer manure from pit storage	80	82	83
Swine or cattle manure stored in covered storage	65	70	73
Swine or cattle manure stored in open structure or pond (undiluted)	60	66	68
Cattle manure with bedding stored in roofed area	60	66	68
Effluent from lagoon or diluted waste storage pond	40	46	49
Manure stored on open lot, cool-humid	50	55	57
Manure stored on open lot, hot-arid	45	50	53

¹ Table assumes annual applications on the same site. If a one-time application, the decay series can be estimated by subtracting year 1 from year 2 and year 2 from year 3. The decay rate becomes essentially constant after 3 years.

Source: Alison Van Eenennaam. No date. *Dairy Manure as a Soil Amendment*. University of California Cooperative Extension after Azevedo, J. and P. R. Stout. 1974. *Farm animal manures: an overview of their role in the agricultural environment*. University of California, Manual 44.

² Table assumes annual applications on the same site. If a one-time application, the decay series can be estimated by subtracting year 1 from year 2 and year 2 from year 3. For example, the decay series for fresh poultry manure would be 0.90, 0.02, 0.01. The decay rate becomes essentially constant after 3 years.

Source: Table 11-9, USDA-NRCS Agricultural Waste Management Field Handbook.

- b. Realistic yield goals for the crop(s) to be grown shall be used in determining crop nutrient requirements. Where historic crop yield data are available, those data must be used to determine yield goals by calculating the average of the 3 highest yields for the 5 most recent years the crop was grown in the field. Where historic crop yield data are unavailable, realistic yield goals may be based on average yields published by the Imperial County Agriculture Commissioner using the average of the 3 highest yields for the 5 most recent years reported.³

Actual applications of nitrogen and phosphorus to any crop shall be limited to the amounts specified below.

IX. Nitrogen

1. The California Nitrogen Index, located in section I of the NRCS Field Office Technical Guide (Agronomy Technical Note No. 72), shall be used to assess the risk of nitrogen loss via leaching from each field. The manure application rates, best management practices, and other relevant variables used in the index evaluation that impact nitrogen leaching potential shall be documented in the NMP. Nitrogen shall be managed to minimize leaching in accordance with the recommendations of the Nitrogen Leaching Index as follows:
 - a. **Very Low (0 – 10) or Low (>10 – 22) Risk:** Fields with a very low or low risk for N leaching may be managed using application rates and best management practices consistent with those used in the Nitrogen Index evaluation to result in the very low or low risk rating.
 - b. **Medium Risk (>22 – 33):** Fields with a medium risk for N leaching may be managed using application rates and best management practices consistent with those used in the Nitrogen Index evaluation to result in the medium risk rating. The operator should consider use of practices to further reduce N loss potential and improve N use efficiency, particularly for fields where the Nitrogen Index predicts very high soil residual nitrate.
 - c. **High (>33 – 45) or Very High (>45 – 58) Risk:** For fields with a high or very high risk for N leaching, nitrogen management practices must be re-evaluated. Nitrogen budgets should be used as the basis for modifying practices. Practices must be modified to reduce the nitrogen inputs that increase the risk of N leaching. Inputs of organic or inorganic N should be reduced and/or managed to better synchronize N applications with N uptake by the crop.
2. Total nitrogen from all sources including residual nitrogen in the soil and nitrogen applied in the form of manure, process wastewater, commercial fertilizer, compost, and other amendments as well as irrigation water⁴ for each field shall not exceed the recommended

³ The Imperial County Agricultural Commissioner's Office publishes annual Agricultural Crop and Livestock Reports on its website: <https://www.co.imperial.ca.us/ag/?page=iccr>.

⁴ Where available, existing published data on irrigation water nitrogen content may be used in determining the total amount of nitrogen applied. For example, Imperial Irrigation District publishes the results water quality analyses for the All-American Canal, East Highline Canal, Central Main Canal, and Westside Main Canal: <https://www.iid.com/water/water-supply/water-quality>.

nitrogen application rate during the year of application or harvest cycle. Additional nitrogen may be applied if the following conditions are met:

- a. Plant tissue testing has been conducted and it indicates that additional nitrogen is required to obtain a crop yield typical for the soils and other local conditions;
- b. The amount of additional nitrogen applied is based on the plant tissue testing and is consistent with University of California Cooperative Extension written guidelines or written recommendations from a professional agronomist;
- c. The form, timing, and method of application make the nitrogen immediately available to the crop; and
- d. Records are maintained documenting the need for additional applications.

X. Phosphorus

1. The California Phosphorus Index, located in Section I of the NRCS Field Office Technical Guide (Agronomy Technical Note No. 62), shall be used to evaluate the risk of phosphorus transport. The California Phosphorus Index shall be used to assess all fields where manure, litter, or process wastewater will be applied, regardless of whether the field is in an area with a known phosphorus impairment. Phosphorus applications shall be made to each field based on the Phosphorus Index Risk Rating as follows:
 - a. **Low Risk:** Fields with low risk for P loss may receive manure at rates based on the N content of the manure and calculated to meet crop nitrogen needs based on a nitrogen budget. Commercial P fertilizers may be applied, if needed, utilizing soil or tissue sampling procedures and the P response threshold of the crop.
 - b. **Medium Risk:** Fields with medium risk for P loss may receive manure at rates based on the N content of the manure and calculated to meet crop nitrogen needs based on a nitrogen budget. Commercial P fertilizers may be applied, if needed, utilizing soil or tissue sampling procedures and the P response threshold of the crop. Existing management on these fields will probably lead to higher risk over time. Risk should be monitored periodically using the P Index.
 - c. **High Risk:** Fields at high risk for P loss may receive manure at rates to meet crop P requirements based on the P content of the manure and anticipated crop yield. Commercial P fertilizers or organic fertilizers may be applied, utilizing soil or tissue sampling procedures and the P response threshold of the crop. The Discharger shall prepare and implement a conservation plan that will lower the risk category to at least Medium when implemented. After implementation of the conservation plan has lowered the risk level, the actions required at the lower risk levels will apply.
 - d. **Very High Risk:** Fields rated very high risk for P loss must not receive manure or other organic forms of P fertilizer. Commercial P fertilizers may be applied according to University of California guidelines, or guidelines recognized by the University, utilizing soil or tissue sampling procedures and P response thresholds for the crop. P may not be

applied from any source if the Soil Test P exceeds 80 ppm (Olsen) or 120 ppm (Bray). When seeding winter vegetables into soils below 55 degrees Fahrenheit, 30 lbs./ac or less of P_2O_5 may be injected as a starter fertilizer. The Discharger shall prepare a conservation plan that will lower the risk category to at least High when implemented. After implementation of the conservation plan has lowered the risk level, the actions required at the lower risk levels will apply.

2. A single application of phosphorus applied as manure may be made at a rate equal to the recommended phosphorus application or estimated phosphorus removal in harvested plant biomass for the crop rotation or multiple years in the crop sequence. When such applications are made, the application rate shall:
 - not exceed the recommended nitrogen application rate during the year of application, or
 - not exceed the estimated nitrogen removal in harvested plant biomass during the year of application when there is no recommended nitrogen application.
 - be consistent with the P Index risk category of the field, including:
 - applications shall not be made on fields rated Very High Risk
 - applications may be made on fields rated High Risk only where the application is consistent with the required conservation plan

In addition, when such applications are made, no additional phosphorus may be applied until the amount applied in the single application has been removed through plant uptake and harvest (*i.e.*, no additional applications for the number of years covered by the single application).

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Colorado River Basin Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Colorado River Basin Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Colorado River Basin Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(C).)
4. The Colorado River Basin Water Board may approve an anticipated bypass, after considering its adverse effects, if the Colorado River Basin Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

- 1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).)
- 2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

- a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Colorado River Basin Water Board. The Colorado River Basin Water Board may require modification or revocation and reissuance of the Order or discharge authorization letter to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. 122.41(l)(3); 122.61.)

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under part 136 or, in the case of sludge use or disposal, approved under part 136 unless otherwise specified

in part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

- A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Colorado River Basin Water Board's Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

1. Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
- b. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
- c. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
- d. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
- e. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
- f. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

2. Claims of confidentiality for the following information will be denied (40 C.F.R. 122.7(b)):

- a. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
- b. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Colorado River Basin Water Board, State Water Board, or USEPA within a reasonable time, any information which the Colorado River Basin Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to

the Colorado River Basin Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Colorado River Basin Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)
3. All reports required by this Order and other information requested by the Colorado River Basin Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Colorado River Basin Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Colorado River Basin Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware

that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.22(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Colorado River Basin Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Colorado River Basin Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

- b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Colorado River Basin Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Colorado River Basin Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R. § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Colorado River Basin Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Colorado River Basin Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

- A.** The Colorado River Basin Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Colorado River Basin Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

- A.** That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
- a.** 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
 - b.** 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
 - c.** Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
 - d.** The level established by the Colorado River Basin Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
- B.** That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):
- a.** 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));
 - b.** 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
 - c.** Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
 - d.** The level established by the Colorado River Basin Water Board in accordance with 40 Code of Federal Regulations section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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Attachment E – Monitoring and Reporting Program (MRP)

40 Code of Federal Regulations (C.F.R.) section 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Colorado River Basin Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Sample Volume and Monitoring Locations.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Colorado River Basin Water Board.
- B. Laboratory Certification.** All analyses shall be conducted at a laboratory certified for such analyses by the Environmental Laboratory Accreditation Program (ELAP) of the State Water Board's Division of Drinking Water, unless otherwise specified by this Order or Monitoring and Reporting Program. Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code section 13176 and must include quality assurance/quality control data with their reports.
- C. Monitoring Test Procedures.** The collection, preservation, and holding times of all samples shall be in accordance with the test procedures under 40 C.F.R. part 136 (amended May 18, 2012) *Guidelines Establishing Test Procedures for the Analysis of Pollutants*, promulgated by the USEPA, unless otherwise specified in this MRP. In addition, the Colorado River Basin Water Board and/or USEPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 C.F.R. part 136.
- D. Analytical Testing Methods.** The permittee must use analytical methods specified in this permit, see Attachment C. If no test procedure is specified, the permittee shall analyze the pollutant using:
1. A test procedure listed in 40 C.F.R. section 136.3; or
 2. An alternative test procedure approved by USEPA as provided in 40 C.F.R. sections 136.4 or 136.5; or
 3. A test procedure listed in 40 C.F.R. part 136, with modifications allowed by USEPA as provided in 40 C.F.R. section 136.6.

Guidance on procedures for approval of alternative and new test procedures can be obtained from the following references: *Protocol for EPA Approval of Alternative Test Procedures for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-002, March 1999); and *Protocol for EPA Approval of New Methods for Organic and Inorganic Analytes in Wastewater and Drinking Water* (EPA 821-B-98-003, March

1999). In accordance with the test procedures under 40 Code of Federal Regulations part 136, samples shall be analyzed as soon as possible after collection.

E. Instrumentation and Calibration. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

F. Reporting Intervals. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

G. Availability of Records. All reports prepared in accordance with the terms of this General Permit will be available for public inspection at the offices of the Colorado River Basin Water Board, unless deemed confidential, including pursuant to Clean Water Act section 308(b).

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Production Area Discharge Point 001	EFF-001	Discharges from the production area, after exiting the production area and before contact with the receiving water and/or dilution by any other water or waste. If more than one production area discharge point is authorized by the General Permit, monitoring locations shall be named EFF-001A, EFF-001B, etc.
Land Application Area Discharge Point 002	EFF-002	Discharges from the land application area(s), including discharges from tile drainage systems, after exiting the land application area and before contact with the receiving water and/or dilution by any other water or waste. If more than one land application area discharge point is authorized by the General Permit, monitoring locations shall be named EFF-002A, EFF-002B, etc.
Receiving Surface Water	RSW-001	Receiving water monitoring location not to exceed 100 feet upstream from the location where the discharge from the production area or land application area enters the receiving water.
Receiving Surface Water	RSW-002	Receiving water monitoring location not to exceed 50 feet downstream from the location where the discharge

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
		from the production area or land application area enters the receiving water.
Receiving Groundwater	RGW-001	Groundwater monitoring wells installed to implement a Groundwater Trend Monitoring Program, as approved by the Executive Officer. If more than one groundwater monitoring well is installed/used, monitoring locations shall be named RGW-001, RGW-002, etc.

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations EFF-001 and EFF-002

1. The Discharger shall monitor production area and land application area discharges (except agricultural stormwater discharges to waters of the U.S.) at EFF-001 and EFF-002 (including EFF-001A, EFF-001B, etc. and EFF-002A, EFF-002B, etc., as applicable) as follows:

Table E-2. Effluent Monitoring at EFF-001 and EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and ML
Date of discharge	n/a	n/a	n/a	n/a
Time of discharge	n/a	n/a	n/a	n/a
Volume	Gallons or Acre-inches	Estimate	1x/Discharge Event	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
Total Kjeldahl Nitrogen	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
Phosphorus, Total (as P)	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
Dissolved Oxygen	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
Total Dissolved Solids (TDS)	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP

¹ A representative composite sample of wastewater shall be prepared based on a minimum of three time-series samples collected during a discharge event that are representative of the beginning, middle, and end of the wastewater discharge. These samples shall be combined in a single container, mixed, and poured into a clean container provided by or approved by the laboratory that will receive the samples.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and ML
Total Suspended Solids (TSS)	mg/L	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
<i>E. coli</i>	MPN/100 mL	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP
Enterococcus ²	MPN/100 mL	Composite ¹	1x/Discharge Event	See Section I.C and I.D of the MRP

- Monitoring results shall be recorded and submitted in accordance with Section X and XI.B.3 of the MRP.
- Records of discharge shall be maintained using the Discharge Notification Form provided as Attachment J.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS – NOT APPLICABLE

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

- When there is a discharge from the CAFO, the Discharger shall monitor the receiving surface water at RSW-001 as follows. In the event that no receiving water is present at RSW-001, no receiving water monitoring data is required for RSW-001:

Table E-3. Receiving Water Monitoring Requirements at RSW-001 (Upstream)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Temperature	°F	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Total Kjeldahl Nitrogen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP

² For discharges to the New River

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Phosphorus, Total (as P)	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Dissolved Oxygen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
TDS	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
TSS	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
<i>E. coli</i>	MPN/100 mL	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Enterococcus ³	MPN/100 mL	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP

- Records of receiving surface water monitoring shall be maintained in accordance with Section X of the MRP and reported in accordance with Section XI.B.2 of the MRP.

B. Monitoring Location RSW-002

- When there is a discharge from the CAFO, the Discharger shall monitor the receiving surface water at RSW-002 as follows. In the event that no receiving water is present at RSW-001 and the water present at RSW-0002 is composed entirely of effluent from the discharge, no receiving water monitoring data is required for RSW-002:

Table E-4. Receiving Water Monitoring Requirements at RSW-002 (Downstream)

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	Standard Units	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Temperature	°F	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Total Kjeldahl Nitrogen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Phosphorus, Total (as P)	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Dissolved Oxygen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP

³ For discharges to the New River

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
TDS	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
TSS	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
<i>E. coli</i>	MPN/100 mL	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Enterococcus ⁴	MPN/100 mL	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP

- Records of receiving surface water monitoring shall be maintained in accordance with Section X of the MRP and reported in accordance with Section XI.B.2 of the MRP.

C. Monitoring Location RGW-001

- The Groundwater Trend Monitoring Program may require the installation of monitoring wells at the facility and/or the use of existing wells. Dischargers shall monitor all monitoring locations RGW-001, RGW-002, etc. in the approved monitoring program as follows:

Table E-5. Groundwater Monitoring at RGW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids	mg/L	Grab	1x/Semi-annual ⁵	See Section I.C and I.D of the MRP
Nitrate-Nitrogen	mg/L	Grab	1x/Semi-annual	See Section I.C and I.D of the MRP
pH	Standard Units	Grab	1x/Semi-annual	See Section I.C and I.D of the MRP
<i>E. coli</i>	MPN/100 mL	Grab	1x/Semi-annual	See Section I.C and I.D of the MRP
Enterococcus ⁶	MPN/100 mL	Grab	1x/Sem-annual	See Section I.C and I.D of the MRP

- Groundwater elevation and gradient shall be determined when quarterly monitoring is conducted.
- Groundwater monitoring results shall be recorded in accordance with Section X of the MRP and submitted with the annual report.

⁴ For discharges to the New River

⁵ Semi-annual sampling shall be conducted in April and October

⁶ For facilities adjacent to the New River

IX. OTHER MONITORING REQUIREMENTS

A. Production Area Visual Inspections – Applicable To CAFOs That Confine Dairy Cows, Cattle, Swine, Poultry And Veal Calves

1. The Discharger shall conduct visual inspections of the production area as follows, in accordance with the requirements of Section V.C.1 of this Order.

Table E-6. Production Area Visual Inspections

Inspection Type	Minimum Monitoring Frequency
All stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures	1x/Week
All water lines, including drinking water and cooling water lines	1x/Day ⁷
Manure, litter, and process wastewater impoundments, noting the level of all open surface liquid impoundments as indicated by the depth marker installed in accordance with Section V.B.1.c of this Order.	1x/Week

2. The Discharger shall maintain complete records onsite at the facility in accordance with Section X.C of the MRP.
3. The Discharger shall certify in the annual report that production area visual inspections have been documented as required.

B. Production Area Visual Inspections – Applicable to All CAFOs

1. The Discharger shall conduct visual inspections of the production area as follows:

Table E-7. Production Area Visual Inspections

Inspection Type	Minimum Monitoring Frequency
All stormwater containment structures	During each significant storm event
Manure and wastewater storage areas and land application areas, noting any discharges from the property that is under control of the Discharger	1x/Day during land application events

2. The Discharger shall record the approximate time of each storm-related discharge that results in off-property discharges of stormwater commingled with wastewater or manure, and its approximate duration.
3. The results of all inspections required by this Section IX.B shall be recorded in accordance with Section X.C of the MRP. Records shall be maintained on site at the

⁷ Quarterly sampling shall be conducted in January, April, July, and October.

permitted facility for a period of 5 years, in accordance with Section IV of Attachment D, Standard Provisions – Records and shall be submitted with the annual report.

C. Manure, Compost, Litter, and Process Wastewater Monitoring – Applicable to CAFOs that Apply Manure, Compost, Litter, or Process Wastewater to Land Under the CAFO's Control or to Large CAFOs that Transfer Manure, Compost, Litter, or Process Wastewater to Other Persons

1. The Discharger shall conduct sampling and analysis as follows, in accordance with the requirements of Sections V.C.2.b.ii and VII.C.3.b.iii of this Order. This monitoring is for nutrient management and is expected to be part of the Nutrient Management Plan (NMP) for Dischargers that land apply manure, compost, litter, or process wastewater. All Large CAFOs shall provide the results of the required monitoring to recipients of any manure, compost, litter, or process wastewater transferred to other persons, in accordance with Section VII.C.5.a.i of this Order. Monitoring shall be performed to determine the nutrient and salt content of process wastewater and manure separately.

Table E-8. Manure, Compost, Litter, and Process Wastewater Monitoring

Parameter	Units ^{8a}	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ammonium-Nitrogen	mg/L mg/kg lb/ton lb/1,000 gallons	Footnote b	1x/Year	Footnote ⁹
Total Kjeldahl Nitrogen	mg/L mg/kg lb/ton lb/1,000 gallons	Footnote b	1x/Year	Footnote ⁹
Phosphorus, Total	mg/L mg/kg lb/ton lb/1,000 gallons	Footnote b	1x/Year	Footnote ⁹
pH	Standard Units	Footnote b	1x/Year	Footnote ⁹
Percent moisture	%	Footnote b	1x/Year	Footnote ⁹

⁸ Results shall be reported in the units appropriate to the type of material analyzed (solid or liquid) and that support the required land application rate calculations, as applicable

⁹ Consistent with Technical Standards for Nutrient Management (Attachment C)

2. Dischargers that apply manure, compost, litter, or process wastewater to land under the CAFO's control shall inspect land application equipment for leaks as follows:
 - a. Solid manure (including compost and litter) application equipment: a minimum of once annually
 - b. Liquid manure application equipment: a minimum of once daily during application
3. Records of monitoring results shall be maintained onsite in accordance with Section X of the MRP.

D. Soil Monitoring – Applicable to CAFOs that Apply Manure, Compost, Litter, or Process Wastewater to Land Under the CAFO's Control

1. Dischargers that land apply manure, compost, litter, or process wastewater shall conduct soil sampling and analysis as follows, in accordance with the requirements of Sections V.C.2.b.ii and VII.C.3.b.iii of this Order. This monitoring is for nutrient management and is expected to be part of the NMP.

Table E-9. Soil Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Soluble Phosphorus	mg/kg lbs/acre	Footnote a	1x/5 Years	Footnote ¹⁰
pH	Standard Units	Footnote a	1x/5 Years	Footnote ¹⁰

2. Records of monitoring results shall be maintained onsite in accordance with Section X of the MRP.

E. Materials Monitoring – Applicable to CAFOs that Operate On-site Composting Operations

1. Dischargers with onsite composting operations that are not covered under separate waste discharge requirements shall conduct materials monitoring as follows, in accordance with the requirements of Section VII.C.3.d.xi of this Order.

Table E-10. Materials Monitoring Record Keeping Requirements

Parameter	Units	Frequency
Quantity of manure received from each source	tons	1x/Month
Quantity of green waste received from each source	tons	1x/Month
Quantity of fertilizer received from each source	tons	1x/Month
Quantity of composted material shipped off site	tons	1x/Month
Estimated quantity of raw materials on site	tons	1x/Month

¹⁰ Consistent with Technical Standards for Nutrient Management (Attachment C)

Parameter	Units	Frequency
Estimated quantity of in-process-inventory on site	tons	1x/Month
Estimated quantity of finished compost on site	tons	1x/Month

- Monitoring results shall be recorded in accordance with Section X of the MRP and submitted with the annual report.
- The Discharger shall maintain trucking manifests in accordance with the requirements of Section X.D of the MRP.

F. Flood Protection and Stormwater Monitoring – Applicable to CAFOs that Operate Onsite Composting Operations

- Dischargers with onsite composting operations that are not covered under separate waste discharge requirements shall inspect all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the drainage system.
- The Discharger shall monitor, collect, and analyze samples of stormwater discharges from composting operations as specified in table E-10.

Table E-11. Stormwater Discharge Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Suspended Solids	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
pH	pH units	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Specific Conductance	µmhos/cm	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Total Organic Carbon ¹¹	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Iron	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Nitrate+Nitrite Nitrogen	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Lead	µg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Hardness (measured as CaCO ₃)	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Zinc	µg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP
Phosphorus	mg/L	Grab	1x/Discharge Event	See Section I.C and I.D of the MRP

¹¹ Oil and grease (total oil and grease shall include the polar and non-polar fraction of oil and grease materials) may be substituted for total organic carbon

3. The Discharger shall document any erosion control or drainage problems and/or related maintenance.
4. Flood protection monitoring results shall be reported in accordance with Section XI.E of the MRP.
5. Stormwater discharge monitoring results shall be reported with the annual report in accordance with Section XI.C of the MRP.

X. RECORD KEEPING REQUIREMENTS

All records shall be retained onsite at the permitted operation for a period of five (5) years from the date they are created and made available to the Colorado River Basin Water Board or its designee upon request.

A. Manure Transfer Records – Applicable to Large CAFOs

1. The Discharger shall record each manure-hauling event on a manure tracking manifest form (Attachment H). These records shall include the following:
 - a. Date of transfer;
 - b. Amount of manure, litter, and/or process wastewater that leaves the permitted operation; and
 - c. Name and address of the recipient.
2. The Discharger shall certify in the annual report that manure tracking manifests have been prepared as required.

B. Nutrient Management Plan – Applicable to CAFOs that Apply Manure, Compost, Litter, or Process Wastewater to Land Under the CAFO's Control

1. The Discharger shall maintain onsite a current site-specific NMP that reflects existing operational characteristics.
2. The Discharger shall maintain onsite all necessary records to document that the NMP is being implemented in accordance with the applicable nutrient management practices defined in Sections V.C.2 and VII.C.3.b of this Order.
3. These records shall be submitted in accordance with the MRP or otherwise made available to the Colorado River Basin Water Board upon request.

C. Operation and Maintenance Records – Applicable to All CAFOs

1. The Discharger shall maintain the records described in Table E-12.

Table E-12. Operation and Maintenance Record Keeping Requirements

Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves

Parameter	Units	Frequency
Documentation of visual inspection of all water lines	N/A	1x/Day ¹²
Documentation of visual inspections of manure, litter, and process wastewater impoundments, stormwater diversions structures, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures	N/A	1x/Week
Documentation of depth of manure and process wastewater in all liquid impoundments	feet	1x/Week
Documentation of all actions taken to correct deficiencies identified as a result of the production area visual inspections. Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction.	N/A	As necessary

Applicable to All CAFOs

Parameter	Units	Frequency
Documentation of visual inspections of all stormwater containment structures	N/A	During each significant storm event
Documentation of visual inspections of manure and wastewater storage areas including records of any discharges from the property that is under control of the Discharger	N/A	1x/Day during land application events
<i>Design documentation for all manure, litter, and wastewater storage structures including the following information:</i>	--	--
a. Volume for solids accumulation	Cubic yards or gallons	Once in the permit term unless revised
b. Design treatment volume	Cubic yards or gallons	Once in the permit term unless revised
c. Total design storage volume ¹³	Cubic yards or gallons	Once in the permit term unless revised

¹² Visual inspections shall take place daily. The completion of such inspections may be documented in a manner appropriate to the operation, either by maintaining a daily log or by making a weekly entry, when updating other weekly records that required daily inspections have been completed.

¹³ Total design storage volume includes all wastes accumulated during the storage period, and as applicable; normal precipitation less evaporation on the surface of the structure for the storage period, normal runoff from the production area for the storage period, the direct precipitation from a 25-year, 24-hour storm on the surface

Parameter	Units	Frequency
d. Days of storage capacity	Days	Once in the permit term unless revised
Documentation of animal mortality handling practices	N/A	As necessary
Documentation of controls to prevent the inappropriate introduction of chemicals into manure, wastewater, and stormwater handling systems.	N/A	As necessary
Implementation and maintenance of conservation practices implemented to control runoff of pollutants from the production area.	N/A.	As necessary

2. Records of visual inspections of stormwater management structures and water lines shall be maintained using the Weekly Stormwater and Wastewater Management Structure and Water Lines Inspection Log Sheet provided as Attachment I.

D. Land Application Records – Applicable to All CAFOs

Dischargers who land apply manure, compost, litter, or process wastewater shall maintain the records described in Table E-13.

Table E-13. Land Application Record Keeping Requirements

Parameter	Units	Frequency
Documentation of the crop and expected yield for each field	bushel/acre tons/acre	Seasonally
Documentation of the test methods and sampling protocols used to sample and analyze manure, litter, and wastewater and soil	N/A	Once in the permit term unless revised
Documentation of the basis for determining the application rates used for each field where manure, litter, or wastewater is applied	N/A	Once in the permit term unless revised
Documentation showing the total nitrogen and phosphorus to be applied to each field including nutrients from the application of manure, litter, and wastewater and other sources	pounds/acre	Once in the permit term unless revised
<i>For each land application event where manure, litter, or process wastewater is applied, documentation of the following by field:</i>	--	--
a. Date of application	Month/day/year	1x/Day
b. Method of application	N/A	1x/Day
c. Weather conditions at the time of application and for 24 hours prior to and following application	N/A	1x/Day

of the structure; the runoff from the 25-year, 24-hour storm from the production area; residual solids; and necessary freeboard to maintain structural integrity.

Parameter	Units	Frequency
d. Total amount of nitrogen and phosphorus applied including quantity/volume of manure, litter, or process wastewater applied including calculations	pounds/acre	1x/Day
<i>Documentation of dates of manure application equipment inspection:</i>	--	--
a. Solid manure application equipment	Month/day/year	1x/Year
b. Liquid manure application equipment	Month/day/year	1x/Day During Land Application
Results of annual calculation of the amount of manure, litter, and process wastewater to be land applied, conducted as required in Section VII.C.3.b.iv(e)	Tons/acre Gallons/acre	1x/Year
Documentation of visual inspections of land application areas, including records of any discharges from the property that is under control of the Discharger	N/A	1x/Day during land application events

E. Trucking Manifests – Applicable to CAFOs that Operate Onsite Composting Operations

1. Dischargers with onsite composting operations that are not covered under separate waste discharge requirements shall maintain onsite, in an orderly manner, trucking manifests (or its equivalent). These should clearly indicate the amounts, dates and sources/destinations of all incoming/outgoing material.
2. These documents shall be available for Colorado River Basin Water Board staff review.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. The results of any analysis taken more frequently than required using analytical methods, monitoring procedures and performed at the locations specified in this MRP shall be reported to the Colorado River Basin Water Board.
3. The Discharger shall ensure laboratory analytical results are consistent with the requirements contained in 40 C.F.R. part 136, where appropriate, with regard to significant figures. Part 136 specifies for some analytical methods and the number of significant figures to which measurements are made.

4. The Discharger shall report promptly in writing to the Colorado River Basin Water Board of any changes or proposed changes in the size of the animal population, if it increases beyond the design capacity of the facility specified in the EWMP.

B. Electronic Self-Monitoring Reports (eSMRs)

1. By December 21, 2020, the Discharger shall electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) website (<https://www.waterboards.ca.gov/ciwqs/index.html>). Until then, the Discharger shall submit hard copy SMRs. The CIWQS website will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall maintain sufficient staffing and resources to ensure it submits eSMRs for the duration of the term of this General Permit, including any administrative extensions. This includes provision for training and supervision of individuals (e.g., Discharger personnel or consultant) on how to prepare and submit eSMRs.
3. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under Sections III through IX. The Discharger shall submit quarterly and annual eSMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last eSMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the eSMR.
4. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-14. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
1/Quarter	April 1, 2022	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	Submit with Annual Report
1/Year	April 1, 2022	January 1 through December 31	February 15
1x/Discharge Event	April 1, 2022	January 1 through December 31	<i>Oral:</i> As soon as possible after learning of the discharge without impeding emergency measures

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
			<i>Written:</i> Within 5 days of the oral notification

- 3. Reporting Protocols.** The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

C. Annual Reports

- By February 15 of each year, the Discharger shall submit an Annual Report (Attachment G) for the previous calendar year.
- The Discharger shall attach a cover letter to the Annual Report. The information contained in the cover letter shall clearly identify violations of the WDRs and report any noncompliance that occurred during the year. Further, the cover letter shall discuss corrective actions taken or planned, and the proposed time schedule for corrective actions. Identified violations shall include a description of the requirement that was violated and a description of the violation.

D. Unauthorized Discharges

The Discharger shall notify the Office of Emergency Services ((800) 852-7550), the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the Colorado River Basin Water Board ((760) 346-7491) by telephone to report any noncompliance that may endanger human health or the environment as soon as: (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures. During non-business hours, the Discharger shall leave a voice message on the Colorado River Basin Water Board's voice recorder.

Although State and Regional Water Boards do not have duties as first responders, it is important to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. To carry out this objective, the following notification requirements are to be implemented:

1. A notification submitted to the Colorado River Basin Water Board as soon as possible but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge; and
2. A written report that shall be submitted to the Colorado River Basin Water Board within 5 business days of the time the Discharger becomes aware of the discharge. The written report shall contain:
 - a. The approximate date and time of the discharge;
 - b. The flow rate and duration of the discharge;
 - c. A description of the noncompliance including the specific type and source of the waste discharges (e.g., overflow from holding pond, rainfall runoff from the manure storage areas, etc.) and the cause of the noncompliance; and
 - d. The anticipated time to achieve full compliance and a time schedule and a plan to implement necessary corrective actions to reduce, eliminate, and prevent the recurrence of the discharge.

The Discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the facility to the Colorado River Basin Water Board in accordance with the above time limits.

E. Flood Protection Monitoring Reports – Applicable to CAFOs that Operate Onsite Composting Operations

If significant damage to the flood protection facilities is found, the Discharger shall report this information to the Colorado River Basin Water Board immediately by telephone, and transmit by letter within 2 weeks of its occurrence the following information:

1. Location and extent of damage;
2. Interim measures to be taken to assure that no wastes are discharged from the facility;
and
3. Time schedule for repairs.

F. Revised Nutrient Management Plan Reporting – Applicable to CAFOs that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO’s Control

If the Discharger revises the approved NMP, the Discharger shall submit the revised NMP to the Executive Officer at least 90 days prior to implementation of the change with identification of changes from the previous version.

XII. SUMMARY OF MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table E-15 provides a summary of monitoring, record keeping, and reporting requirements contained in the MRP. This table is provided as a tool to facilitate compliance with the monitoring, reporting and recordkeeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized in the table.

Table E-15. Summary of Monitoring, Record Keeping, and Reporting Requirements

I. Monitoring Requirements for All CAFOs

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below					
--	--	--	--	Production Area Visual Inspections:	--	--
--	IX.B.1	IX.B.1, X.C	XI.C, Att. G	1) Manure, litter, and process wastewater impoundments	Weekly	Annual Report (certification)
--	IX.B.1	IX.B.1, X.C	--	2) Stormwater containment structures	During each significant storm event	N/A

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below					
--	IX.B.1	IX.B.1, X.C	--	3) Manure and wastewater storage areas and land application areas (note any discharges from the property)	1x/Day during land application events	N/A
--	IV.A	IV.A	XI.D, Att. J	Effluent Monitoring - Sample and analyze discharges from the production and land application area (except agricultural stormwater discharges)	1x/Discharge	1) As soon as possible without impeding emergency measures 2) Written report within 5 days
VII.A.2.c	--	--	--	Report changes in ownership or management	As necessary	Prior to change
VII.C.3.c.iv	--	--	--	Report modifications which would result in a change in the quality or quantity of discharges	As necessary	Prior to change
--	VIII.A, VIII.B	VIII.A, VIII.B	--	Sample and analyze surface receiving waters upstream and downstream of the point of discharge from production and land application areas (except agricultural stormwater discharges)	1x/Discharge	1) As soon as possible without impeding emergency measures 2) Written report within 5 days

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
<i>Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below</i>						
VII.C.3.c.iii	VIII.C	VIII.C	--	Groundwater Monitoring (only Dischargers required by the Executive Officer to prepare a groundwater monitoring program): 1) Sample and analyze groundwater according to the approved monitoring program 2) Determine groundwater elevation and gradient	1x/Quarter	In accordance with Discharger's Groundwater Monitoring Program

II. Monitoring Requirements for Dairy, Cattle, Swine, Poultry and Veal Calf CAFOs
(Items listed under Section I, and the following:)

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
--	--	--	--	Production Area Visual Inspections:	--	--
V.C.1	IX.A.1	X.C, Att. I	XI.C, Att. G	1) All water lines, including drinking water or cooling water lines	1x/Day	Annual Report (certification)

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
--	IX.A.1	X.C, Att. I	XI.C, Att. G	2) Stormwater diversion devices, 3) Runoff diversion structures 4) Devices channeling contaminated stormwater to storage/containment structures 5) Document level in all open surface liquid impoundments	1x/Week	Annual Report (certification)
--	--	X.C	--	6) Document corrective actions	As necessary	N/A
--	--	X.C	--	Design documentation for manure, litter, and wastewater storage structures	1x/permit term	N/A
IV.E	--	X.C	--	Document animal mortality handling practices	As necessary	N/A

III. Monitoring Requirements for Large CAFOs that Transfer Manure, Litter or Process Wastewater to Other Persons

(Items listed under Section I, items listed under Section II if applicable, and the following:)

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
<i>Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.</i>						
VII.C.5.a	--	X.A, Att. H	XI.C	Prepare manure tracking manifest	Every manure or process wastewater hauling event	Annual Report (certification)
V.C.2.b.ii VII.C.3.b.iii VII.C.5.a.i	IX.C.1	IX.C.1	--	Sample and analyze manure, litter, and process wastewater	Annually	N/A

IV. Dischargers that Apply Manure, Litter, or Process Wastewater to Land Under the CAFO's Control

(Items listed under Section I, items listed under Sections II and III if applicable, and the following:)

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
V.C.2.b.ii VII.C.3.b.iii	IX.C.1	IX.C.1	--	Sample and analyze manure, litter, and process wastewater	1x/Year	N/A
V.C.2.b.iii	IX.C.2	X.D	--	Inspect land application equipment for leaks	Periodically	N/A

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
V.C.2.b.ii VII.C.3.b.iii	IX.D	IX.D	--	Soil Monitoring - Sample and analyze soil in the croplands to be used for land application of manure, litter, or process wastewater	1x/5 years	N/A
V.C.2.a VII.C.3.b.v and xi	--	X.B X.C	--	Nutrient Management Plan (NMP): 1) Maintain on-site a current site-specific NMP 2) Maintain on-site documentation of NMP implementation	N/A	NMP submitted by April 10, 2020 or 90 days prior to land application
--	--	--	--	Land Application Records:	--	--
VII.C.3.b.v	--	X.D	--	1) Document crop and expected yield for each field	Seasonally	N/A
VII.C.3.b.v	--	X.D	--	2) Document test methods and sampling protocols used for manure, litter, wastewater, and soil monitoring 3) Document basis for determining application rates used for each field 4) Document total N and P to be applied to each field	1x/Permit Term unless revised	N/A

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
VII.C.3.b.v	--	X.D	--	5) Date of application 6) Method of application 7) Weather conditions at the time of, and for 24 hours before and after application 8) Total amount of N and P and total volume of manure actually applied to each field	Every land application event	N/A
VII.C.3.b.iv(e)	--	X.D	--	9) Results of annual calculation of manure, litter, or wastewater to be applied	1x/Year	N/A
VII.C.3.b.xii(a)	--	--	--	NMP revisions	As necessary	Submit revised NMP 90 days prior to implementing the change

V. Dischargers that Operate On-Site Composting Operations (unless covered under separate WDRs)
(Items listed under Section I, items listed under Sections II, III and IV if applicable, and the following)

(Items listed under Section I, Items listed under Sections II, III and IV if applicable, and the following)						
	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
VII.C.3.d.iii	--	--	--	Composting Site Survey required if not previously submitted	Once	Within 90 days of Order effective date
VII.C.3.d.xi	IX.E	IX.E	XI.C, Att. G	Materials Monitoring: 1) Monitor quantities of manure, green waste and fertilizer received from each source. 2) Monitor Quantity of composted material shipped off-site. 3) Estimate quantities of raw materials, in-process inventory and finished compost on-site	1x/Month	Annual Report
VII.C.3.d.xi	--	X.E	--	Maintain trucking manifests indicating amounts, dates, and sources/destinations of all incoming/outgoing material	Every hauling event	N/A

	Permit Reference			Requirement	Monitoring Frequency	Report Due
Order	MRP					
	Monitoring	Records	Reports			
	Note: This table is provided as a tool to facilitate compliance with the monitoring, reporting, and record keeping requirements of this Order. This table is not comprehensive. Dischargers must read sections referenced in the “Permit Reference” columns for the details of each requirement summarized below.					
VII.C.3.d.xi	IX.F	IX.F	XI.C, Att. G	Flood Protection Monitoring: 1) Inspect all internal and external flood protection facilities associated with composting operations 2) Document erosion control or drainage problems and/or related maintenance	At least quarterly and following each storm generating stormwater flow	Annual Report
--	--	--	XI.E	Flood Protection Monitoring: Report significant damage to the flood protection facilities	At least quarterly and following each storm generating stormwater flow	Immediately by telephone, Written report within 2 weeks
VII.C.3.d.xi	IX.F	IX.F	XI.C, Att. G	Stormwater Monitoring: Analyze stormwater discharges from composting operations	1x/Discharge	Annual Report

ATTACHMENT F – FACT SHEET

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Attachment F – Fact Sheet

As described in Section III of the Order, the Colorado River Basin Water Board incorporates this Fact Sheet as findings of the Colorado River Basin Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

I. PERMIT INFORMATION

On September 27, 1995, the Colorado River Basin Water Board adopted Waste Discharge Requirements and NPDES permit Order 95-700, *General Waste Discharge Requirements for Concentrated Animal Feeding Operations within the Colorado River Basin Region* (NPDES No. CAG017001). Order 95-700 consolidated all requirements for CAFOs in the region, including those for stormwater runoff, into a single permit. On March 14, 2001, the Colorado River Basin Water Board adopted Order 01-800, which replaced Order 95-700. On June 25, 2008, the Colorado River Basin Water Board adopted Order R7-2008-0800, which superseded Order 01-800.

On June 20, 2013, the Colorado River Basin Water Board replaced Order R7-2008-0800 with Order R7-2013-0800, which became effective on September 30, 2014. The order served as a general permit pursuant to 40 Code of Federal Regulations section 122.28 and Water Code section 13263(i), under which 30 CAFOs were enrolled. The order expired on September 29, 2019 and was administratively extended. This Order replaces Order R7-2013-0800.

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

Federal regulations at section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 2 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. BACKGROUND

A. Covered Facilities

On July 30, 2012, USEPA published revisions to its Clean Water Act regulations for CAFOs. The references to 40 Code of Federal Regulations parts 122, 123, and 412 below incorporate the revisions that are part of the final rule.

40 C.F.R. section 122.23 defines an animal feeding operation (AFO) as an operation where animals have been, are, or will be confined and fed for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area. 40 C.F.R. section 122.23 defines a CAFO as any AFO that either meets a certain animal population threshold (and, for Medium CAFOs, specific discharge criteria), or, regardless of population, is determined to be a significant contributor of pollutants to waters of the United States by the appropriate authority. The Clean Water Act states that all CAFOs are point sources, and thus are subject to NPDES permitting requirements. When considering the designation of an AFO as a CAFO as a result of being a significant contributor of pollutants, the appropriate authority (in this case, the Colorado River Basin Water Board or USEPA) must consider certain factors. Those factors include, in part, the location of the AFO relative to surface waters, the slope, rainfall and other factors that increase the likelihood or frequency of discharges, and the impact of the aggregate amount of waste discharged from multiple AFOs in the same geographic area.

Consistent prior requirements in Order R7-2013-0800 and the 2012 revisions to the federal CAFO regulations, this Order addresses discharges from CAFOs, except as noted in Section II.A of the Order, Coverage Edibility. The Colorado River Basin Water Board has determined that 29 of the 30 Existing Enrollees confine more than the threshold number of animals to meet the definition of a Large CAFO at 40 C.F.R. section 122.23(b)(4). New Notices of Intent (NOIs) will be evaluated on a case-by-case basis to determine whether the facilities meet the regulatory CAFO definitions or should be designated as CAFOs under the Clean Water Act.

The following types of CAFOs located within the Colorado River Basin Region are eligible for coverage under this permit:

- New and existing horse, sheep, and duck CAFOs established after February 14, 1974 (note that there are no known existing horse, sheep, or duck CAFOs in the region).
- New and existing CAFOs that confine dairy cows and cattle other than veal calves.
- New and existing CAFOs that confine swine, poultry, and veal calves (note that there are no known existing swine, poultry, or veal calf CAFOs in the region).

40 C.F.R. section 122.28 provides that general permits may be issued for facilities (1) involving the same or substantially similar types of operations; (2) discharging the same types of wastes; (3) having the same or similar operating conditions; (4) requiring the same or similar monitoring; and (5) that are more appropriately regulated under a general permit rather than individual permits. The types of wastes and appropriate waste discharge requirements for dairies, feedlots, and related facilities are similar. Accordingly, CAFOs in the Colorado River Basin Region can be adequately and appropriately regulated by coverage under the terms of a general waste discharge permit.

B. General Permit Application

The purpose of the Order is to facilitate regulation of discharges from CAFOs. To obtain coverage under this Order, the Discharger must submit the first annual fee, an NOI, and an Engineered Waste Management Plan (EWMP). Certain Dischargers also must submit

a Nutrient Management Plan (NMP). Signing the certification on the NOI signifies the Discharger intends to comply with the provisions of this Order. An NOI must be signed to be valid.

Existing Enrollees under Order R7-2013-0800 are required to re-submit NOIs for coverage under the Order. Existing Enrollees are not required to re-submit EWMPs that have already been submitted under Order R7-2013-0800 if those EWMPs still accurately reflect the CAFO's current operating conditions. Dischargers that apply manure, litter, or process wastewater to land under their control must submit an NMP that addresses the period of time the CAFO will be covered under the permit and that meets the applicable requirements of Sections V.C.2 and VII.C.3.b of the Order. The NMPs previously submitted under Order R7-2013-0800 do not meet these criteria and therefore must be revised and re-submitted.

C. Description of Discharge

Dairies, feedlots, and other operations that concentrate animals in a confinement area are operations that generate large volumes of wastes that can impact both groundwater and surface waters if not managed properly. Examples of CAFO wastes include manure, washwater¹ containing manure, water used to flush manure from barns and other confinement areas, stormwater runoff from manured areas, or other process wastewater.

CAFO wastes are typically high in ammonia, bacteria, and organic matter. Stormwater runoff from manured areas also contains high concentrations of organic materials, salts (primarily total dissolved solids), phosphorus, and nitrates. In surface waters, ammonia and nitrate are highly toxic to aquatic organisms, nutrient enrichment can cause algal blooms which increase the amount of decaying organic matter in surface water, decay of organic matter from manure or algal blooms reduces the oxygen content of the water, and bacteria poses a threat to the beneficial uses of the water. Stormwater runoff from composting operations can contain constituents similar to those found in stormwater runoff from manured areas at CAFOs. Stormwater runoff from composting operations at CAFOs can also contain other pollutants depending on the amendments and additives used in the operation, which may include lime, rock phosphate, gypsum, or sulfur.

Proper management of these waste streams is essential to protect the groundwater and the surface water resources of the Colorado River Basin Region. Section 402(p) of the Clean Water Act, as amended by the Water Quality Act of 1987 and the related regulations published by the USEPA on November 16, 1990 (40 C.F.R. parts 122 [revised on February 12, 2019], 123 and 124), requires an NPDES permit for pollutant discharges from CAFOs. The USEPA's Effluent Guidelines and Standards for Feedlots are contained in 40 C.F.R. part 412 (revised February 12, 2003, February 10, 2006, November 20, 2008, and July 30, 2012). At present, 30 CAFOs exist within the Colorado River Basin Region. Most of these facilities are feedlots, with the exception of two dairies.

Manure analyses submitted by Existing Enrollees between 2014 and 2020 are summarized below. In addition, none of the Existing Enrollees has reported a discharge. Therefore, the information summarized in Table F-1 is the most recent information

¹ Water used to wash cows prior to milking, milking equipment, and the milk barn.

available to the Colorado River Basin Water Board to characterize wastes generated at CAFOs within the region.

Table F-1. Summary of Colorado River Basin Region CAFO manure nutrient analyses (all results are reported on a dry weight basis)

---	Summary of Results (lbs/ton, dry weight basis)	Summary of Results (lbs/ton, dry weight basis)	Summary of Results (lbs/ton, dry weight basis)	Summary of Results (lbs/ton, dry weight basis)
---	Ammonia Nitrogen	Total Kjeldahl Nitrogen ²	Total Phosphorus	Sodium ³
No. of samples ⁴	15	10	23	16
Minimum	0.03	10.4	4.0	11.0
Maximum	7.26	62.0	37.3	52.1
Median	2.81	36.5	17.5	22.6

Using the latest available animal population data for Existing Enrollees and national average values for manure generation and solids content provided in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Agricultural Waste Management Field Handbook (Chapter 4, March 2008), it is estimated that CAFOs in the Colorado River Basin Region generate in excess of 1,000 tons of manure/day (dry weight basis). In general, the storage and land application of manure or process wastewater could result in the discharge of nutrients and salts that have the potential to adversely impact the quality of groundwater and surface water. This is particularly so if the CAFO facilities (e.g., waste ponds) are within the influence of a tilewater drainage system, or there is insufficient separation between the bottom of the pond and first encountered groundwater, or the wastes are applied to land at agronomic rates that exceed crop demand or soil needs.

D. Discharge Location and Receiving Waters

The existing CAFOs in the Colorado River Basin Region are located in the Imperial Valley. The climate of the Imperial Valley is typical of a desert area and is characterized by hot, dry summers, occasional thunderstorms, and gusty high winds with sandstorms. It is one of the most arid areas in the United States with an average annual rainfall of less than three (3) inches and temperatures in excess of 100°F for more than 100 days per year. The average January temperature is 70°F, and the average July temperature is 107°F. Evapotranspiration rates for Imperial Valley can exceed 7 feet per year, and in hot summer months can be one-third of an inch per day.

Imperial Valley soils are formed in stratified alluvial materials and vary greatly in texture and layer thickness. Many soils are affected by soluble salts, and drainage is a problem in the irrigated areas. These poorly drained areas are serviced by a system of underground drain lines ("tile lines") to manage soil salinity and water content. Irrigation

² Where available, reported Total Nitrogen results were substantially the same as those for TKN.

³ Provided as a proxy for salts/TDS

⁴ Order R7-2008-0800 does not require reporting for manure analytical results; therefore, data is available only where requested or otherwise submitted to the Colorado River Basin Water Board. Results that were not reported on a dry weight basis or did not provide adequate information (i.e., % moisture) to convert to a dry weight basis were not included.

water that has percolated through the soil, known as tilewater, is collected in the tile lines beneath the fields and discharged to surface drainage canals by gravity flow or a sump system. The surface drains discharge mainly into the Alamo River or the New River, which are the two main tributaries of the Salton Sea. Some drains also discharge directly into the Salton Sea. The drains, Alamo and New Rivers, and the Salton Sea are waters of the United States.

The main irrigated farming areas and existing CAFOs are located in the central portion of the Imperial Valley (central Imperial Valley) on the lakebed floor between the international boundary on the south and the Salton Sea on the north. The central Imperial Valley is nearly level with a slope toward the Salton Sea of about 0.1 percent. The slope from the east and west edges to the center is approximately 0.3 percent. The fine- and moderately fine-textured lakebed sediments are the parent materials of the Glenbar, Holtville, and Imperial soils and the underlying layers of the Meloland and Niland soils. Windblown and river channel silts and sands deposited on the lakebed are the sources of Indio, Vint, and Rositas soils and the surface layer of the Meloland soils.

The central Imperial Valley contains five primary soil types that range from well drained to poorly drained:

- Imperial (nearly level, moderately well drained silty clay);
- Imperial-Holtville-Glenbar (nearly level, moderately well drained and well drained silty clay, silty clay loam, and clay loam);
- Meloland-Vint-Indio (nearly level, well-drained fine sand, loamy very fine sand, fine sandy loam, very fine sandy loam, loam and silt loam);
- Niland-Imperial (nearly level, moderately well drained gravelly sand, fine sand, silty clay, and silty clay loam, along the northeastern edge of the central Imperial Valley around the town of Niland and along the western edge of the irrigated area); and
- Fluvaquents (nearly level, poorly drained soils of undifferentiated texture, along the edge of the Salton Sea).

Approximately 480,000 acres in the Imperial Valley are considered farmable with irrigation. First encountered groundwater in the Imperial Valley typically has a relatively high salinity (i.e., total dissolved solids [TDS] concentrations range from 700 to over 15,000 mg/l). Perched groundwater can be found a few feet below the surface adjacent to unlined irrigation canals and drains, the New River, the Alamo River, and where land is currently used in agricultural production. A confined aquifer is located from approximately 80 feet below ground surface (BGS) to 450 feet BGS. A second confined aquifer is present below this; the two aquifers are separated by a low permeability aquitard that ranges in thickness from 60 to 280 feet.

E. Summary of Prior Requirements Under Order R7-2013-0800

Order R7-2013-0800, which this Order replaces, prohibited discharges to surface waters other than from facilities (1) designed, constructed, and maintained to contain process

wastewater, including runoff and direct precipitation resulting from a 25-year, 24-hour storm event, or, for new poultry, swine, and veal calf CAFOs, from a 100-year, 24-hour storm event, and (2) in compliance with additional measures and records for production areas. In addition, Order R7-2013-0800 required the Dischargers to develop and implement an EWMP, including specific requirements with regard to pond construction and maintenance, dead animal disposal, and land application rates. The prior order also included specific requirements for maintaining adequate storage (including operation and maintenance of storage structures), diverting clean water from production areas, and properly handling mortalities and chemicals. Dischargers that land-apply manure, litter, or process wastewater were required to submit an NMP, including specific requirements for conservation practices, manure and soil testing, protocols for nutrient management, and record keeping. Order R7-2013-0800 also required the Dischargers to submit an annual self-monitoring report. These requirements are continued in this Order.

F. Compliance Summary

All of the Existing Enrollees under Order R7-2013-0800 have been inspected at least once since the permit was adopted. Based on the latest inspection report and information contained in the Colorado River Basin Water Board's permit file for each facility, the most common deficiencies identified during inspections were out of date manure nutrient analyses and minor impoundment maintenance issues.

None of the Existing Enrollees have reported discharges or overflows from their facilities.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by USEPA as well as chapter 5.5, division 7 of the California Water Code (commencing with section 13370). The Order serves as an NPDES permit for point source discharges from CAFOs 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).

B. California Environmental Quality Act (CEQA)

Pursuant to Water Code section 13389, this action to adopt an NPDES permit is exempt from the California Environmental Quality Act (CEQA; Public Resources Code, § 21100 et seq.), except requirements for "new sources" as defined at Clean Water Act section 306 and 40 C.F.R. sections 122.2 and 122.29.⁵ For any new source, compliance with CEQA must be demonstrated before coverage under this General Permit can be authorized for the facility.

⁵ The continued operation of facilities owned or operated by Existing Enrollees is further exempt from CEQA under California Code of Regulations, title 14, section 15301.

C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plan. The Water Quality Control Plan for the Colorado River Basin (Basin Plan), which was adopted on November 17, 1993, and amended on January 8, 2019, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (including amendments adopted by the Colorado River Basin Water Board to date). In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The existing and potential beneficial uses of the various surface waters that could be impacted by the discharge of CAFO wastes in the Colorado River Basin Region include one or more of the following:

- Agricultural supply (AGR),
- Aquaculture (AQUA),
- Cold freshwater habitat (COLD),
- Freshwater replenishment (FRSH),
- Groundwater recharge (GWR),
- Hydropower generation (POW),
- Industrial service supply (IND),
- Municipal and domestic supply (MUN)
- Non-contact water recreation (REC-II),
- Preservation of rare, threatened, or endangered species (RARE),
- Warm freshwater habitat (WARM),
- Water contact recreation (REC-I), and
- Wildlife habitat (WILD).

The existing and potential beneficial uses of groundwater that could be impacted by the discharge of CAFO wastes within the Colorado River Basin Region include one or more of the following:

- Agricultural supply (AGR),
- Industrial service supply (IND), and
- Municipal and domestic supply (MUN)⁶

Requirements of this Order implement the Basin Plan.

2. Stormwater Requirements. USEPA promulgated federal regulations for stormwater on November 16, 1990 in 40 C.F.R. parts 122 through 124. CAFOs are applicable industries under the stormwater program and are obligated to comply with federal NPDES regulations for industrial stormwater discharges. On April 1, 2014, the State Water Board adopted the *General Permit for Stormwater Discharges Associated with Industrial Activities*, Order 2014-0057-DWQ, NPDES No.

⁶ At such time as the need arises to know whether a particular aquifer which has no known existing MUN use should be considered as a source of drinking water, the Regional Water Board will make such determination based on criteria listed in the "Sources of Drinking Water Policy" in Chapter 2 of the Basin Plan. An "X" placed under the MUN in Table 2-5 of the Basin Plan for a particular hydrologic unit indicates only that at least one of the aquifers in that unit currently supports a MUN beneficial use. The actual MUN usage of the Imperial hydrologic unit is limited only to a small portion of that groundwater unit.

CAS000001 (Industrial General Permit). This Order and prior orders include the provisions of the Industrial General Permit that pertain to CAFOs and CAFOs that conduct composting activities classified under Standard Industrial Classification category 287X. Once a Discharger was authorized to discharge under the Order, it may seek to terminate coverage, if any, under the Industrial General Permit. In the event that the permitted facility has stormwater discharges associated with non-CAFO or non-composting industrial activities regulated under the Industrial General Permit, the Discharger must obtain or maintain coverage under the Industrial General Permit in a manner that precludes a gap in coverage.

- 3. Endangered Species Act.** The 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 & Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C. §§ 1531-1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the United States/state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- 4. Antidegradation Policy.** 40 C.F.R. 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality of high quality waters be maintained unless degradation is justified based on specific findings. The Colorado River Basin Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.
- 5. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the Clean Water Act and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

D. Impaired Water Bodies and Total Maximum Daily Loads

Section 303(d) of the federal Clean Water Act requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies (303(d) List) every 2 years. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) List also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. On June 9, 2021, the USEPA gave final approval to California's 2018 303(d) List for waters in the Colorado River Basin Region.

All of the existing CAFOs are located in Imperial Valley, and certain receiving waters in the Imperial County have been classified as impaired on the 2018 303(d) List. These waterbodies have Total Maximum Daily Load (TMDLs) or are scheduled for TMDL development. Below are summaries of the TMDLs for surface waters in the Imperial Valley and other surface waters within the Colorado River Basin Region for potential pollutants of concern:

Imperial Valley Drains. The 303(d) List classifies the Imperial Valley Drains as impaired by sedimentation/siltation, chlordane, dieldrin, dichlorodiphenyltrichloroethane (DDT), polychlorinated biphenyls (PCBs), toxicity, imidacloprid, chlorpyrifos, toxaphene, and selenium. The Colorado River Basin Water Board adopted a sedimentation/siltation Total Maximum Daily Load (TMDL) on January 19, 2005, which was approved by USEPA on September 30, 2005. The TMDL does not set a wasteload allocation (WLA) specific to CAFOs; however, it does establish a WLA for all point sources not to exceed the total suspended solids limits specified under 40 C.F.R. part 122.

New River. The 303(d) List identifies the New River as impaired by indicator bacteria, chlordane, chlorpyrifos, DDT, dichlorodiphenyldichloroethane (DDD), diazinon, dieldrin, hexachlorobenzene, mercury, nutrients, organic enrichment/low dissolved oxygen, PCBs, sediment, selenium, toxaphene, toxicity, trash, bifenthrin, chloride, disulfoton, imidacloprid, cyhalothrin, malathion, cypermethrin, naphthalene, and ammonia. The New River Dissolved Oxygen TMDL was adopted by the Colorado River Basin Water Board in May 2010 and approved by USEPA on April 27, 2012. CAFOs were considered in the staff report; however, the TMDL did not include WLAs for CAFOs. The New River has two TMDLs for potential pollutants of concern from CAFOs, namely, for bacterial indicators and sediment. USEPA has approved the Colorado River Basin Water Board's TMDLs for these pollutants on August 14, 2002 and March 31, 2002, respectively. The sedimentation TMDL sets a WLA for all point sources not to exceed the total suspended solids limits prescribed under 40 C.F.R. part 122. The bacteria TMDL establishes WLAs for fecal coliform, *E. coli*, and enterococci that apply to all NPDES-permitted facilities, including CAFOs, in the watershed. For *E. coli*, the WLA is listed as the log mean (Geometric mean) of samples collected shall not exceed 126 Most probable number (MPN) per 100 milliliters (based on a minimum of not less than five samples during a 30-day period), or 400 MPN/100ml for a single sample (daily maximum). *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California – Bacterial Provisions and a Water Quality Standards Variance Policy* (Bacteria Provisions) includes water quality objectives for *E. coli* that are more stringent than those included in the TMDL. The *E. coli* objective from the Bacteria Provisions is 100 colony forming units/100 mL for the geometric mean and 320 cfu/100mL for the statistical threshold value. Since it is more stringent, the Bacteria Provisions requirements have been implemented in this General Permit.⁷

Alamo River. The 303(d) List identifies the Alamo River as impaired by the following chemical constituents: chlordane, chlorpyrifos, cypermethrin, cyhalothrin, DDT, diazinon, dieldrin, PCBs, selenium, toxaphene, enterococcus, *Escherichia coli* (*E. coli*), sediment/siltation, chloride, malathion, and toxicity. The Alamo River

⁷ Except at the International Boundary, which has a site-specific objective for Fecal Coliform Organisms of 30,000 colonies per 100 ml, with no single sample to exceed 60,000 colonies per 100 ml.

sedimentation/siltation TMDL was adopted by the Colorado River Basin Water Board on June 27, 2001 and by USEPA on June 28, 2002. The TMDL does not set a WLA specific to CAFOs; however, it does establish a WLA for all point sources not to exceed total suspended solids limit specified under 40 C.F.R. part 122.

Coachella Valley Stormwater Channel. The 303(d) List classifies segments of the Coachella Valley Stormwater Channel as impaired by dissolved oxygen, disulfoton, DDT, dieldrin, PCBs, toxaphene, indicator bacteria, ammonia, and toxicity. The Colorado River Basin Water Board developed a TMDL for bacterial indicators, which among other things establishes WLAs for point source discharges for *E.coli* as the log mean (Geometric mean) of samples collected shall not exceed 126 Most probable number (MPN) per 100 milliliters (based on a minimum of not less than five samples during a 30-day period), or 400 MPN/100ml for a single sample (daily maximum). The Bacteria Provisions include water quality objectives for *E. coli* that are more stringent than those included in the TMDL. The *E. coli* objective from the Bacteria Provisions is 100 colony forming units/100 mL for the geometric mean and 320 cfu/100mL for the statistical threshold value. Since it is more stringent, the Bacteria Provisions requirements have been implemented in this General Permit.

Salton Sea. The Salton Sea is listed as impaired by arsenic, chlorpyrifos, DDT, enterococcus, nutrients, salinity, chloride, low dissolved oxygen, ammonia, and toxicity. The Colorado River Basin Water Board has not developed TMDLs addressing these impairments. TMDLs developed and implemented in the sea's tributaries will positively affect the water quality of the Salton Sea.

Federal regulations at 40 C.F.R. section 122.44(d)(1)(vii)(B) generally require inclusion of effluent limits that are "consistent with the assumptions and requirements of any available waste load allocation for the discharge prepared by the [s]tate and approved by EPA." This General Permit requires the Discharger to meet technology-based effluent limitations (TBELs) as required under 40 C.F.R. section 412.31. The effluent limitation guidelines (ELGs) for CAFOs do not require numeric effluent limitations; however, the TBELs prohibit the discharge of manure, litter, and process wastewater from the production area, including runoff and the direct precipitation, from storms up to and including a 25-year, 24-hour rainfall event, consistent with the federal technology-based standards at 40 C.F.R. section 412.31. In order for treatment controls to reliably meet numeric effluent limits, both the quality and quantity of the effluent should have limited variability. However, the quality and quantity of stormwater runoff from CAFO facilities vary considerably. The Colorado River Basin Water Board has determined that it is not feasible to establish numeric effluent limitations for pollutants in discharges from CAFOs at this time because of this variability. This Order requires the Discharger to develop and implement best management practices (BMPs), including the development and implementation of EWMPs to contain waste and stormwater up to and including runoff from a 24-hour, 25-year storm event, consistent with the federal regulations. These and requirements for NMPs and other measures are expected to control and abate the discharge of pollutants to surface waters and achieve compliance with the above listed TMDLs, utilizing BPT to achieve applicable water quality standards. Reliance upon implementation of BMPs in lieu of numeric effluent limitations for discharges to surface waters to achieve TMDL WLAs is pursuant to 40 C.F.R. section 122.44(k)(3).

If TMDLs are applicable, the Discharger shall include measures or BMPs in its NMP to comply with the requirements of the TMDL. If a CAFO discharges to an impaired water that has an approved TMDL, the Colorado River Basin Water Board will inform the Discharger if any additional limits or controls are necessary for the discharge to be consistent with the assumptions of any available WLA in the TMDL. Any additional limits or controls shall be included in the NMP.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The Clean Water Act requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the code of federal regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

Wastes from CAFOs contain high concentrations of salts (total dissolved solids and nitrates) and nutrients, and may contain pathogens, heavy metals, and other pollutants. These wastes originate from the excretion of manure in corrals, milk barns, and other areas where animals are concentrated.

Farming practices on lands that receive CAFO waste contribute salts, nutrients, pesticides, trace elements, sediments, and other by-products that can affect the quality of surface water and groundwater. Evaporation and crop transpiration remove water from soils, which can result in an accumulation of salts in the root zone of the soils at levels that retard or inhibit plant growth. Additional amounts of water are applied to leach the salts below the root zones. The leached salts can reach groundwater or surface water.

Virtually all agricultural areas in the Imperial Valley have subsurface (tile) drainage systems to maintain the groundwater level below the crop's root zone. Lands with heavier soils, such as those present in the central Imperial Valley, have a more extensive network of tile lines than lands with more sandy soils to help leach salts from the soils because applied irrigation water does not readily percolate through the soil profile. Drainage from these systems may be discharged directly to surface water bodies or to drainage ditches that discharge to surface water bodies. Some of these systems discharge to evaporation basins that are subject to waste discharge requirements. Discharges from these systems have elevated concentrations of salts, including nitrates and other nutrients. The Order requires Dischargers who have these systems to identify their location and discharge point and to monitor discharges from these systems.

To ensure that wastes and associated pollutants from CAFOs are managed appropriately, discharges of these wastes and the application of manure and process wastewater to land at CAFOs are regulated so they do not adversely impact the quality of groundwater and surface water in the region.

The Order prohibits the discharge of pollutants from production areas except where precipitation causes a discharge from a facility designed, constructed, operated, and maintained to contain all manure and process wastewater and the runoff and direct precipitation from a 25-year, 24-hour storm event for new and existing CAFOs that confine dairy cows and cattle other than veal calves (40 C.F.R. § 412.31), for existing CAFOs that confine swine, poultry and veal calves (40 C.F.R. § 412.43), and for horse, sheep, and duck CAFOs established after February 14, 1974 (40 C.F.R. §§ 412.13, 412.25). For new swine, poultry, and veal calf CAFOs, the Order prohibits the discharge of pollutants from production areas and establishes a process for Dischargers to meet the no-discharge requirement with site-specific best management practice effluent limitations based on a demonstration following procedures specified in the Order, that production areas are designed to achieve zero discharge (40 C.F.R. § 412.46). To comply with these effluent limitations, the Discharger must also comply with additional measures including production area visual inspections, installation of a depth marker in all open surface liquid impoundments, and correcting any deficiencies found as a result of the visual inspections in addition to keeping specific records for the production area (40 C.F.R. § 412.37, (a)-(b)). (Note that the Additional Measures specified at 40 C.F.R. § 412.37 also include requirements for properly handling mortalities. These requirements are included in the Order as a prohibition rather than an effluent limitation.) Further, the Order requires that the facilities meet certain liner requirements for retention ponds and be protected from inundation from a 100-year frequency storm (Cal. Code Regs., tit. 27, § 22560).

To ensure compliance with the effluent limitations in the Order, and consistent with the previous Order R7-2013-0800, each Discharger has been required to develop and implement an Engineered Waste Management Plan (EWMP). The requirements of the EWMP are included in Attachment B of the Order. The facilities that are authorized to discharge under Order R7-2013-0800 have already submitted EWMPs to the Colorado River Basin Water Board. All of those EWMPs have been approved. New dischargers under the Order and dischargers that have not submitted a current EWMP will be required to submit an EWMP at least 30 days prior to any new discharge.

Consistent with Order R7-2013-0800, this Order requires the EWMP to be prepared by a registered professional engineer or other qualified individual. The Colorado River Basin Water Board is aware of software programs such as NRCS's Animal Waste Management (AWM) program that can be used to determine the necessary size of manure and wastewater storage facilities. Such programs may be used in the development of EWMPs as long as the resulting plan is consistent with the EWMP requirements in Attachment B of the Order. Further, the Colorado River Basin Water Board is aware that such programs are designed so that they may be used by CAFO operators to design storage facilities. CAFO operators may use AWM or similar software to assist in the development of an EWMP; however, a registered professional engineer or other qualified individual must certify that the resulting EWMP meets the requirements in Attachment B of the Order. Other qualified individuals may include University of California Extension specialists or employees of NRCS, subject to the approval of the Colorado River Basin Water Board.

The Order also prohibits discharges from land application areas under the control of the CAFO, except agricultural stormwater discharges. Precipitation-caused discharges from a land application area where the manure, litter, or process wastewater has been applied in accordance with the provisions in the Discharger's NMP are considered to be agricultural

stormwater discharges and are separately regulated (40 C.F.R. § 122.23(e)). Each Discharger that applies manure, litter, or process wastewater to land under the CAFO's control must develop and implement a NMP that includes specific elements specified at 40 C.F.R. section 122.42(e)(1)(vi)-(ix) (Section VII.C.3.b of the Order) and section 412.4(c) (Section V.C.2 of the Order). 40 C.F.R. section 122.42(e)(1) also includes requirements not directly related to land application of manure, litter, or process wastewater as minimum elements of a CAFO's NMP. Because most of the CAFOs in the region do not land apply manure, litter, or process wastewater, the Order includes the requirements from 40 C.F.R. section 122.42(e)(1)(i)-(v) as provisions in the EWMPs so that only those CAFOs that do land apply manure, litter, or process wastewater are required to prepare NMPs. With respect to the regulatory NMP requirements contained in 40 C.F.R. section 122.42(e)(1)(i)-(v), the records maintained by the Discharger to document compliance with those requirements are considered to be part of the CAFO's NMP.

Existing Enrollees under Order R7-2013-0800 that apply manure, litter, or process wastewater to land under their control have submitted NMPs to the Colorado River Basin Water Board. All of those NMPs have been approved; however, the existing NMPs must be revised to reflect the updated permit provisions that detail the factors, projections, and other data that must be included in the NMP. Existing and New Enrollees will be required to submit an NMP with their NOI. New dischargers are required to submit the NMP and NOI at least 90 days before the start of permit coverage. Existing Enrollees are required to submit the NMP and NOI by April 1, 2022 but are encouraged to submit them as soon as possible. The Colorado River Basin Water Board anticipates that the NMP review and approval process could take up to 90 days from the time the NMP is submitted. Since manure, litter, and process wastewater may not be applied unless in accordance with the terms of an approved NMP, Dischargers who anticipate applying manure, litter, or process wastewater after April 1, 2022 will need to submit NOIs and NMPs and obtain approval before the permit effective date.

Dischargers are not required to use certified planners to prepare NMPs, but the Colorado River Basin Water Board does encourage Dischargers to work with experts such as USDA's NRCS and Cooperative Extension agents who can help make sure that NMPs meet all regulatory requirements and promote sustainable agriculture.

The Technical Standards for Nutrient Management as specified in the Order are consistent with federal regulations and those in the previous Order R7-2013-0800, which were based on technical standards established in WDRs for similar facilities in the state, on guidelines in NRCS conservation practices standard code 590 (Nutrient Management), and on recommendations from the University of California Cooperative Extension offices. The technical standards are consistent with the USEPA best practicable control technology, the best management practices required by 40 C.F.R. section 122.42(e)(1)(vi)-(ix) and large CAFO best practicable control technology. In 2011, the USEPA reviewed the existing Technical Standards for Nutrient Management included with Order R7-2008-0800 (Attachment C). Revisions to the technical standards in the Order provide flexibility in documenting soil sampling locations, clarify sampling and analysis protocols for compost and litter, and provide updated links to technical documentation referenced in the standards. Consistent with Order R7-2013-0800, precipitation-related discharges from land application areas at facilities operating in compliance with the Order are agricultural stormwater discharges. And since they are consistent with USEPA best practicable control technology,

the Technical Standards for Nutrient Management represent best practicable treatment or control for the purposes of State Water Board Resolution No. 68-16.

A number of the CAFOs within the region compost, or have expressed interest in composting, manure generated at the CAFO. Consistent with the previous Order R7-2013-0800, the Order includes requirements that apply to CAFOs with onsite composting operations. Note that onsite composting operations are included in the definition of a CAFO's "production area" (40 C.F.R. § 122.23 (b)(8)) and are subject to all applicable requirements of the Order. This includes onsite composting operations that are operated by a party other than the Discharger covered under the Order, unless the third-party operation is covered under separate WDRs issued by the Colorado River Basin Water Board or State Water Board. On April 7, 2020, the State Water Board amended *General Waste Discharge Requirements for Composting Operations* (Order WQ 2015-0121-DWQ) and issued an Order 2020-0012-DWQ, including certain operations that compost manure. To ensure consistency in regulation of similar operations across the state, CAFOs with onsite composting operations that meet the criteria for regulation under the Order WQ 2020-0012-DWQ are required to obtain coverage under that order. The onsite composting provisions of the Order will continue to apply to those CAFOs with onsite composting operations that sell or give away less than 5,000 cubic yards of compost per year are exempt from permitting under Order WQ 2020-0012-DWQ.

Some CAFOs in the region choose to transfer manure to an off-site location for composting. Such transfers are subject to the manure transfer provisions of the Order and the off-site composting operation is subject to all applicable federal, state, county, local or other requirements, including permitting under State Water Board Order WQ 2020-0012-DWQ, *General Waste Discharge Requirements for Composting Operations*, and/or Imperial County conditional use permits. To the extent that manure from such off-site composting operations is returned to the CAFO for land application, the land application activities are subject to the NMP and related requirements of this Order.

Consistent with the previous Order R7-2013-0800, the Order requires the implementation of a manure tracking manifest system by all CAFOs authorized to discharge under the Order. CAFO manure contains much more salt per unit of nitrogen than other kinds of fertilizers. For this reason, the use of manure to meet the nutrient needs of crops results in excessive application of salts, which are not utilized by plants and which can migrate to groundwater or be discharged to surface water via tile drainage systems. The manure tracking manifest system data may be used if necessary to identify croplands where manure is routinely applied at rates that exceed crop needs. Consistent with individual WDRs issued to composting facilities, the Order also requires CAFOs with onsite composting operations not covered by separate WDRs to maintain trucking manifests documenting the amounts, dates, and sources or destinations of all incoming and outgoing material.

Table F-2 summarizes the manifest requirements for Dischargers with onsite composting operations covered under the Order:

Table F-2. Manifest Requirements

Description	Manifest Requirements of this Order
<p>Discharger composts manure onsite and transfers compost to third party (off-site) more than 5,000 cubic yards per year, or</p> <p>Third party composts manure onsite and transfers compost more than 5,000 cubic yards offsite per year.</p> <p>Composting operation must be covered under separate WDRs or Statewide Composting General Order.</p>	<p>Discharger maintains manifest of manure transferred to onsite, third party composter.</p>
<p>Third party composts all manure onsite and all compost is spread on land under the control of the Discharger, or</p> <p>Discharger composts manure onsite and then applies compost to land under the control of the Discharger (no manure or compost is transferred off-site).</p> <p>Composting operation is covered under this Order.</p>	<p>No manifest requirements.</p>
<p>Discharger composts manure onsite and transfers compost to third party (off-site) less than 5,000 cubic yards per year, or</p> <p>Third party composts manure onsite and transfers compost less than 5,000 cubic yards offsite per year.</p> <p>Composting operation is covered under this Order.</p>	<p>Discharger maintains manifest of compost transferred off-site</p>

The groundwater salinity within Imperial Valley is highly variable, ranging from 800 to over 10,000 mg/L in some areas. However, there is very little area specific groundwater quality data available. Salt and nutrient management in the Imperial Valley is addressed in the integrated regional water management plan and is primarily implemented through waste discharge requirements. Therefore, this Order includes groundwater trend monitoring to establish the background quality of areal groundwater and to evaluate potential impacts of discharges from CAFOs on groundwater.

The Order also requires compliance with title 27 of the California Code of Regulations, including a minimum separation of five (5) feet between the bottom of wastewater storage structures and seasonally high groundwater levels. This is consistent with the previous Order R7-2013-0800 as well as State Water Board's 1980 *Guidelines for Mound Systems* and California NRCS's 2017 conservation practice standard code 313 (Waste Storage Facility) criteria for minimizing seepage to groundwater.

In summary, effluent and receiving water limitations in the Order are based on the federal Clean Water Act, the Colorado River Basin Water Board's Basin Plan, the State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the Order, the following information sources were used:

1. 40 Code of Federal Regulations.
2. Water Quality Control Plan for the Colorado River Basin Region (Basin Plan), as amended to date.
3. California Code of Regulations, title 27, section 20005 et seq.
4. Colorado River Basin Water Board files related to General NPDES Permit for CAFOs within the Colorado River Basin Region, Order R7-2013-0800 (NPDES permit CAG017001).
5. USDA NRCS conservation practice standard code 590 (Nutrient Management).
6. USDA NRCS conservation practice standard code 313 (Waste Storage Facility).

A. Discharge Prohibitions

The Order prohibits the discharge of wastes and process wastewater except as provided for in the effluent limitations and discharge specifications of the Order. The Order also prohibits pollution caused by certain activities associated with composting operations, consistent with the State Control Board's *General Waste Discharge Requirements for Composting Operations* (Order WQ 2020-0012-DWQ). Finally, the Order prohibits the discharge of trash to the surface waters, consistent with applicable TMDL waste load allocations, including for the New River, and the State Water Board's *Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the Clean Water Act and implementing USEPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by the proposed Order must meet minimum federal technology-based requirements based on ELGs for concentrated animal feeding operations in 40 C.F.R. part 412 and BPJ in accordance with 40 C.F.R. section 125.3.

The Clean Water Act requires that technology-based effluent limitations are established based on several levels of controls:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The Clean Water Act requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the Clean Water Act and 40 Code of Federal Regulations section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

The provisions of the Order establish production area design standards and operational procedures. The Order requires the development and implementation of EWMPs and NMPs to control and abate the discharge of pollutants to surface waters and to achieve compliance with applicable water quality standards utilizing BPT requirements established in the ELGs at 40 C.F.R. part 412. These ELGs apply to large CAFOs. Given the similarity in the operational characteristics of CAFOs, the Colorado River Basin Water Board finds that it is appropriate to develop BPJ-based effluent limitations for medium CAFOs and AFOs that have been designated as CAFOs that are the same as the effluent limitations established in the ELG for large CAFOs.

The ELGs for most CAFOs that will be authorized to discharge under the Order require that the Discharger’s production area be designed, constructed, operated, and maintained to contain all process wastewater plus the direct precipitation and runoff from a 25-year, 24-hour storm event. New swine, poultry, and veal calf CAFOs are subject to a zero discharge standard. Site-specific design standards may be developed for those facilities based, in part, on the performance of a facility’s storage structure design using 100 years of climate data. ELGs for onsite composting operations require storage capacity for a 100-year, 24-hour storm. Some CAFOs in the region have inquired whether containment berms around the entire facility or entire composting area would be an acceptable alternative to constructing containment ponds or impoundments. The Colorado River Basin Water Board has determined that

berms around the entire facility or composting area are approved as long as the area that would act as an impoundment meets all requirements of the EWMP, particularly with respect to storage capacity and the permeability of underlying soils. The EWMP must include measures to ensure the containment structure meet the soil and siting criteria.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the Clean Water Act and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 C.F.R. section 122.44(d)(1)(i) requires 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 has been 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 Clean Water Act 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 in 40 C.F.R. section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Determining the Need for WQBELs

NPDES permits for discharges to waters of the United States must meet all applicable provisions of sections 301 and 402 of the Clean Water Act. These provisions require controls of pollutant discharges that utilize BAT and BCT to reduce pollutants and any more stringent controls necessary to meet water quality standards.

CAFOs may have multiple discharges from production areas and land application areas. Under the Clean Water Act, establishment of generally-applicable numeric WQBELs for land application areas is not feasible because precipitation-related discharges from land application areas are either subject to the technology-based effluent limitations in the ELGs or exempt under the Clean Water Act agricultural stormwater exemption. CAFOs must develop, prepare, and implement NMPs in accordance with the NPDES regulations and technology-based effluent limitations applicable to land application areas.

For production areas, establishment of generally-applicable numeric effluent limitations is not feasible because (1) the only discharges to surface waterbodies permitted are those from rainfall events that cause an overflow from facilities designed, constructed, operated and maintained to contain all process wastewater plus the runoff and direct precipitation (that have been commingled with manure or other products or by-products) from a 25-year, 24-hour rainfall event (or other design storm event used in sizing the impoundments at new source swine, poultry, and veal calf CAFOs for zero discharge), (2) due to the significant volume of runoff involved from such events treatment of these discharges sampling these discharges may be impractical, and (3) the requirements specified in the Order are developed to protect the water quality of all receiving waters (surface and groundwater).

Therefore, the effluent limitations contained in the Order are narrative and include the requirement to develop and implement an EWMP and NMP and implement additional measures specified in Section VII.C, which is equivalent to best management practices (BMPs). 40 C.F.R. section 122.44(k)(3) and (k)(4) allow the use of BMPs to control and abate the discharge of pollutants when “numeric effluent limitations are infeasible; or . . . the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.” It is not feasible to establish generally-applicable, numeric WQBELs for pollutants in discharges from CAFOs in the Colorado River Basin; therefore, in lieu of WQBELs, the Order requires Dischargers to develop and implement an EWMP and NMP and implement certain additional measures for the production and land application areas.

A WQBEL is designed to protect the quality of the receiving water by ensuring that Basin Plan water quality objectives are met. Federal regulations at section 122.44(d) require permit effluent limitations to control all pollutants that may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard. If the Colorado River Basin Water Board determines that additional requirements (e.g., additional effluent limitations, monitoring requirements, etc.) are necessary for a specific Discharger to comply with applicable water quality standards or waste load allocations established in an approved TMDL, those requirements will be specified in either the written notice of authorization or a subsequent letter from the Colorado River Basin Water Board to the Discharger. Such additional requirements may be necessary, for example, to protect water quality in surface waters that have been placed on the Section 303(d) List of impaired waters.

The technology-based requirements in the Order limit production area discharges to those that occur as the result of a very large storm event (i.e., a 25-year, 24-hour storm for all Existing Enrollees) at a facility that is otherwise designed, constructed, operated, and maintained as required. Allowable production area discharges are very infrequent and have not occurred during the term of the previous Order R7-2013-0800 or Order R7-2008-0800. The majority of the Existing Enrollees dispose of wastewater through evaporation. That, combined with the fact that none of these facilities has reported a discharge, suggests that wastewater at those operations has a long residence time in lagoons exposed to high ambient temperatures and sunlight. These conditions, particularly where wastewater impoundments are mechanically aerated, generally do not support long-term bacterial survival. The Order also requires that

retention ponds and manured areas be protected from inundation or washout by flooding that results from 20-year or 100-year peak stream flows. This requirement exceeds applicable BPT/BAT and provides additional protection against production area discharges. In addition, when an allowable production area discharge occurs, the discharge would be commingled with other sources, which lessens the potential impact on receiving waters.

For land application areas, dischargers are required to incorporate manure. Incorporating manure into the soil decreases the potential for bacteria and other pollutants to be exposed to precipitation and transported from the field in runoff. Where incorporation of manure is not feasible, the Order requires containment of runoff. In addition, the Order prohibits application of wastewater to saturated soils and runoff from land application sites from the first irrigation after manure application and before planting. These land application BMP requirements exceed BPT/BAT and are expected to minimize discharges of pathogens to all surface receiving waters, including the New River.

Finally, the Executive Officer of the Colorado River Basin Water Board may require any Discharger regulated under this Order to apply for and obtain individual waste discharge requirements if the discharge may adversely affect the water quality objectives of the receiving water.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the Clean Water Act and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. As discussed in below in Section D.2, all effluent limitations in the Order are at least as stringent as the effluent limitations in prior Order R7-2013-0800. For the first time, the Order requires CAFOs with onsite composting operations subject to regulation under the State Water Board's *General Waste Discharge Requirements for Composting Operations* (Order WQ 2020-0012-DWQ) to obtain coverage under that order. CAFOs with onsite composting operations that are exempt from permitting under Order WQ 2020-0012-DWQ continue to be subject to the onsite composting requirements in the Order, which were retained from Order R7-2013-0800. As a result, the Order is in compliance with anti-backsliding requirements as it contains no less stringent limitations for composting operations.

2. Satisfaction of Antidegradation Policy

40 C.F.R. section 131.12 requires that the 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 68-16. Resolution 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings.

The federal antidegradation policy as set forth in 40 C.F.R. section 131.12 and the state's antidegradation policy as set forth in State Board Resolution 68-16 are applicable to NPDES permitting process, including permit renewals. The federal policy only applies to surface water quality and it protects existing beneficial uses, including special provisions for waters designated as an "outstanding natural resource" and established baseline water quality that existed since the adoption of the policy in 1975.

The state antidegradation policy is more inclusive. It is applicable to both surface and groundwaters; incorporates the federal policy, protects existing and reasonable potential beneficial uses, and establishes the baseline water quality as the best water quality that existed since 1968, unless subsequent lowering was due to regulatory action consistent with Resolution 68-16.

The existing CAFOs regulated under the Order are in the central Imperial Valley. Average annual precipitation in the Imperial Valley is insignificant (< 3 inches/year). The receiving waters for discharges from existing CAFOs include the New and Alamo Rivers and Imperial Valley Drains and groundwater in the Imperial Hydrologic Unit.

The New River is an effluent dominated surface water that exclusively carries discharges from several wastewater treatment plants, agricultural return flows from approximately 30 Imperial Valley drains, and wastes from Mexicali, Mexico. The drains discharge tilewater and tailwater from Imperial Valley farmlands. The wastes from Mexico include agricultural runoff (tailwater), partially treated and untreated municipal and industrial wastewater, stormwater, and urban runoff from the Mexicali Valley. Tailwater is irrigation water that does not percolate into the soil and exits the lower end of the field into a drain. Tailwater tends to erode fields and thus acquire silt and sediments as it crosses and exits a field. Tilewater is water that has percolated through the soil but is not absorbed by crops. Tilewater flushes salts from the soil; the estimated total dissolved solids (TDS) concentration for the water that is drained through the tile lines ranges from 1,300 mg/L to over 4,000 mg/L (Imperial; Integrated Regional Water Management Plan, 2012). This highly saline water accumulates in tile lines beneath the fields, wherein it is transported to drains by gravity flow or a sump system. The wastes from Mexico also contain pollutants (e.g., pathogens, trash, VOCs, pesticides, nutrients, raw sewage, BOD, and metals) that impair the river's beneficial uses. Consequently, "background" water quality in the New River is difficult to establish for the purpose of conducting a typical antidegradation analysis. In other words, the river has historically contained "background" water from farmland and Mexico that contain pollutants at concentrations that violate certain Basin Plan water quality objectives for those pollutants and adversely impact beneficial uses—in particular pesticides, silt/sediment, organics, nutrients, pathogens, metals, trash, and toxicity.

The Alamo River, which also receives highly saline water from tile drains and the Imperial Valley Drains, is impaired by a number of chemical constituents and a sedimentation/siltation. TMDLs have been developed for both New River and Alamo River.

Data on the concentrations and loads of nutrients, pathogens, sediment, and other constituents in discharges from CAFOs in the Imperial Valley is not available.

Enrollees under Order R7-2013-0800 were required to monitor production area and land application area discharges; however, no discharges were reported and consequently, analytical monitoring data has not been collected. This Order continues monitoring requirements for any surface water discharges from the CAFOs.

The groundwater salinity within the Imperial Hydrologic Unit is highly variable, ranging from 800 to over 10,000 mg/L in some areas. However, there is very little area specific groundwater quality data available. Comprehensive data on groundwater nitrogen and pathogen concentrations is not available. Limited data has shown low levels of nitrate in the underlying aquifer. At present, salt and nutrient management in the Imperial Valley is addressed in the integrated regional water management plan and is primarily implemented through waste discharge requirements. This Order includes groundwater trend monitoring to establish the background quality of areal groundwater and to evaluate potential impacts of discharges from CAFOs on groundwater.

Discharges to Surface Waters. Discharges from production areas at CAFOs are allowed only from properly designed, constructed, operated, and maintained facilities as the result of a large storm event. The majority of facilities covered under the Order will be subject to a 25-year, 24-hour storm storage design standard for the production area based on best practicable control technology currently available (BPT) and best available technology economically achievable (BAT). Other CAFOs may be subject to more stringent design standards based on new source performance standards (NSPS). The 25-year, 24-hour storm event for Imperial County locations ranges from approximately 2 to 3 inches of precipitation in a 24-hour period. Since 1995, when the first permit was issued for CAFOs in the region, National Climatic Data Center and California Irrigation Management Information System (CIMIS) weather stations in the Imperial Valley (Brawley [Calipatria/Mulberry in CIMIS] and El Centro) have not recorded 24-hour rainfall totals exceeding 2 inches per day. Production area discharges are likely to contain nitrogen, phosphorus, BOD, and potentially pathogens. Based on the infrequency of such discharges and the fact that they would occur only during very large storm events, such discharges to surface waters are not expected to result in water quality less than prescribed in the Basin Plan.

Discharges from land application areas are controlled by the requirements to develop NMPs and implement BMPs to limit runoff of nutrients and other pollutants to surface waters. All CAFOs that land apply manure are required to submit revised NMPs that conform to the requirements of the Order. The Order requires implementation of site-specific conservation practices to control nutrient transport to surface waters. In addition, each land application site must be evaluated using the California Phosphorus Index to assess and mitigate the risk of phosphorus transport from the field to surface waters. Finally, the Order requires incorporation of surface-applied manure, which minimizes exposure of nutrients and pathogens to runoff that can transport pollutants to surface waters. Where manure incorporation is not feasible, the Order requires containment of runoff that has contacted the applied manure. The BPT and BAT limits in the Order, in combination with NMP requirements, Technical Standards for Nutrient Management (Attachment C), and other required BMPs, will minimize discharges of nutrients, sediment, and pathogens from land application areas and prevent any significant degradation of surface water quality.

Discharges to Groundwater. Storage of wastewater at CAFOs and application of CAFO-generated manure and wastewater to land have the potential to contribute pollutants to groundwater under certain conditions. The pollutants associated with CAFO operations that potentially threaten groundwater include nitrate as nitrogen, total dissolved solids, and bacteria. The same technology-based effluent limitations, best management practices, operation and maintenance standards, and other water quality control measures required in this Order to control and minimize surface water discharges are also expected to minimize discharges of wastes to groundwater. The Order includes liner requirements for retention ponds based on California Code of Regulations, title 27, section 22562. All excavated manure impoundments of Existing Enrollees are lined with the natural soil of the valley (alluvial fan composed mainly of clay), which may slow the percolation rate of wastewater to groundwater. For land application areas, the Order requires use of the California Nitrate Leaching Index to evaluate and mitigate the risk of nitrate movement below the root zone.

At present, however, impacts on underlying groundwater quality from discharges from CAFOs in the Colorado River Basin Region are unknown. This Order requires individual or representative monitoring of the groundwater basin and or subbasin beneath the CAFOs. The data collected will provide an assessment of the groundwater quality and over time yield any trends in the vicinity. Groundwater monitoring is necessary to demonstrate compliance with the receiving water limitations for groundwater of this Order and the protection of beneficial uses.

Discharges from the facilities as permitted herein reflects best practicable treatment and control (BPTC) for the subject wastes. The controls are intended to ensure that the discharge does not create a condition of pollution or nuisance and that the highest “background” water quality will be maintained. Regulated facilities incorporate:

- a. Appropriate technology-based and water quality-based effluent limitations, including waste containment design standards, operation, and maintenance requirements, visual monitoring, and other BMPs and conditions established in the Order, to ensure that allowable discharges from CAFO production areas will be infrequent and occur only during large storm events when the discharges are not likely to degrade surface receiving waters.
- b. NMP requirements, Technical Standards for Nutrient Management, and related land application limitations and conditions to minimize transport of nutrients, pathogens, and other pollutants of concern to receiving waters.
- d. Siting criteria which include: (1) a requirement that retention ponds be lined with or underlain by soil that contains at least ten percent clay and not more than ten percent gravel or artificial materials or materials with equivalent impermeability, and (2) minimum distance to seasonally high groundwater for wastewater containment structures.
- e. Requirements that containment structures that do not meet the EWMP soil and siting criteria propose measures to demonstrate that seepage rates from those containment structures will not exceed 1×10^{-6} cm/sec.
- f. Groundwater trend monitoring including an assessment of groundwater quality in the area around each CAFO, underlying geology, distance from seasonally high

groundwater levels, proximity to wells or other conduits to groundwater, and other risk factors.

- h. Evaluation of all CAFO land application sites using the California Nitrate Leaching Index to identify and mitigate the risk of nitrate leaching from land application of manure.

Some limited degradation of surface waters and/or groundwater within water quality objectives by some of the typical waste constituents associated with wastewater from CAFOs is consistent with the maximum benefit to the people of the state. The cattle industry is ranked as the leading commodity in Imperial County with a gross value of \$449,002,000⁸ and therefore supports the economic prosperity of the community, including employment of full time and part-time personnel, which is an important benefit to the people of the State of California.

Based on the foregoing, the discharge as permitted herein is consistent with the antidegradation policies of 40 C.F.R. section 131.12 and State Board Resolution 68-16. The Order requires an antidegradation analysis for discharges from a new facility or an existing facility that will undergo significant expansion.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in the Order are based on the numeric and narrative water quality objectives contained in the Basin Plan and/or other statewide plans/policies for surface waters.

B. Groundwater

The groundwater receiving water limitations in the Order are based on the numeric and narrative water quality objectives contained in the Basin Plan for groundwaters and on Water Code requirements concerning pollution and nuisance.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 C.F.R. section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Colorado River Basin Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of the Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for facilities covered by the General Permit.

⁸ 2019 Imperial County Agricultural Crop and Livestock Report. <https://agcom.imperialcounty.org/crop-reports/>

A. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP, Attachment E. This provision requires compliance with the MRP and is based on 40 C.F.R. sections 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including the Order) issued by the Colorado River Basin Water Board. The MRP specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the Water Code, and Colorado River Basin Water Board and State Water Board's plans and policies. The MRP also contains a sampling program specific for the permitted discharges. It defines the sampling locations and frequency, pollutants to be monitored, and additional reporting requirements.

The Discharger must monitor all discharges or overflows from manure and/or wastewater storage structures, whether or not the discharge or overflow is authorized by the permit. The Discharger must monitor all discharges from land application sites under the CAFO's control where manure, litter, or process wastewater have been applied, except for agricultural stormwater discharges. The monitoring parameters required are consistent with the previous Order R7-2013-0800. The Discharger must analyze all discharges for the parameters specified in the permit in accordance with USEPA-approved methods at 40 C.F.R. part 136. Effluent monitoring requirements are largely unchanged from the previous Order R7-2013-0800.

B. Receiving Water Monitoring

The surface water monitoring requirements apply when CAFOs discharge effluent to surface waters. When there is a discharge from the CAFO, the Discharger must monitor the receiving water at a location upstream and downstream from the location where the discharge from the CAFO enters the receiving water. The Discharger must collect and analyze samples once per discharge event for pH, temperature, nitrogen, phosphorus, dissolved oxygen, and total dissolved and suspended solids, and bacteria to determine compliance with receiving water limitations. Receiving water monitoring is required to determine compliance with receiving water limitations for surface waters.

Groundwater trend monitoring is required to assess potential impacts to groundwater and compliance with the state Antidegradation Policy. The purpose of monitoring is to confirm that the discharges are effectively controlled by management practices and to evaluate compliance with receiving water limitations for groundwater required in this Order. The Discharger may perform individual groundwater trend monitoring or participate in a group monitoring program. Pursuant to Water Code section 13267, the burden, including costs (discussed in Section VIII of the Fact Sheet below), of the groundwater monitoring and reporting bears a reasonable relationship to the need for that information and the benefits to be obtained from that information.

C. Other Monitoring Requirements

1. Production Area Visual Inspections Applicable to CAFOs that Confine Dairy Cows, Cattle, Swine, Poultry, and Veal Calves

Dischargers must conduct daily visual inspections of all water lines (including drinking and overflow water lines) and weekly visual inspections of stormwater diversion devices, runoff diversion structures, and devices channeling contaminated stormwater to wastewater storage and containment structures and all manure, litter, process wastewater impoundments pursuant to the effluent limitations established at 40 C.F.R. section 412.37(a).

2. Production Area Visual Inspections Applicable to All CAFOs

Dischargers must conduct visual inspections and record keeping as described in the MRP to ensure any discharges from the facility are detected in a timely manner. These requirements are consistent with the monitoring requirements in the previous Order R7-2008-0800.

3. Manure, Litter, and Process Wastewater Monitoring – Applicable to CAFOs that Land Apply Manure, Litter, or Process Wastewater and to Large CAFOs that Transfer Manure, Litter or Process Wastewater to Other Persons

Dischargers that land apply manure, litter, or process wastewater must monitor manure, litter, and process wastewater for the constituents specified in the MRP, pursuant to requirements established at 40 C.F.R. sections 122.42(e)(i)(vii) and 412.4(c)(3). Large CAFOs are expected to use the results of the required analyses to provide information on nutrient content to recipients of manure, litter, or process wastewater transferred to third parties pursuant to the requirements established at 40 C.F.R. section 122.42(e)(3). Dischargers that land apply manure, litter, or process wastewater are expected to use the results of the required analyses for nutrient management. The monitoring parameters required are consistent with those required under previous Order R7-2008-0800.

4. Soil Monitoring – Applicable to CAFOs that Land Apply Manure, Litter, or Process Wastewater

Dischargers that land apply manure, litter, or process wastewater shall monitor soils in the land application area(s) for the constituents specified in the MRP, pursuant to requirements established at 40 C.F.R. section 122.42(e)(i)(vii). Dischargers are expected to use the results of the required analyses for nutrient management. The monitoring parameters and frequency required are consistent with 40 C.F.R. section 412.4(c)(3).

5. Materials Monitoring – Applicable to CAFOs that Operate Onsite Composting Operations

These requirements are consistent with the monitoring requirements in the previous Order R7-2008-0800.

6. Flood Protection and Stormwater Monitoring – Applicable to CAFOs that Operate Onsite Composting Operations

These requirements are consistent with the monitoring requirements in the previous Order R7-2008-0800 and with the State Water Board's Composting General Order.

D. Record Keeping Requirements

The MRP specifies the records that must be kept to document implementation of the required monitoring and management practices specified in the Order. Record keeping requirements for manure transfers are based on requirements established at 40 C.F.R. section 122.42(e)(3) and are consistent with the CAFO regulatory strategy described in the Fact Sheet. Specific record keeping requirements applicable to the production area and land application area at CAFOs that confine dairy cows, cattle, swine, poultry and veal calves are based on requirements established at 40 C.F.R. sections 412.37 and 122.42(e)(1)(ix). The allowance for recording daily visual inspections of water lines on a weekly basis is based on guidance from USEPA in its *NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations* (EPA-833-F-12-001) at Appendix J.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42.

40 C.F.R. section 122.41, subdivisions (a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 C.F.R. section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. section 122.41, subdivisions (j)(5) and (k)(2), because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 C.F.R. parts 122 through 124. The Colorado River Basin Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include, but are not limited to, the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Colorado River Basin Water Board, including revisions to the Basin Plan.

2. Groundwater Trend Monitoring

The urine, manure or process wastewater generated from the production area may result in the discharge of nutrients and other pollutants that have the potential to adversely impact the quality of groundwater. The purpose of the groundwater trend monitoring requirement is to evaluate the water quality of the underlying groundwater and any pollutant concentration trends observed. The requirement is based on Water Code sections 13263 and 13267 and on the region's Basin Plan.

3. Best Management Practices and Pollution Prevention

To ensure that compliance with the effluent limitations and discharge specifications of the Order is achieved, all CAFOs are required to develop, prepare, and implement an EWMP. CAFOs that land-apply manure, litter, or process wastewater to land under their control also must develop an NMP. EWMPs and NMPs are to be prepared in accordance with the Order.

In March 1999, USDA and USEPA finalized their unified national strategy for animal feeding operations (AFOs). In general, the national strategy recommended the development of comprehensive nutrient management plans (CNMPs) that were intended to bring each AFO into compliance with the requirements of the Clean Water Act and to minimize the impacts to groundwater and surface water from AFO wastes by the implementation of best management practices. In general, a CNMP would assure that appropriate waste storage and handling facilities were designed, constructed and maintained to comply with the requirements of the CWA, and that the use and application of wastewater, litter, and manure (i.e., nutrient management) was managed to minimize impacts to groundwater and surface water. Revisions to the NPDES and ELGs for CAFO regulations published on February 12, 2003, supported this national strategy by requiring the largest CAFOs to develop, prepare and implement NMPs. Subsequent CAFO rule revisions, most recently published on July 30, 2012, continue to require NMPs for all discharging CAFOs. Consistent with the federal CAFO regulations and previous Order R7-2013-0800, the Order requires the development and implementation of NMPs for Dischargers that apply manure, litter, or process wastewater to land under their control.

40 C.F.R. section 122.42(e)(1) requires all permitted CAFOs to develop NMPs and includes nine minimum elements that each permitted CAFO's NMP must include. The first five of those elements are not directly related to land application of manure, litter, and process wastewater. The Order, like the prior Order R7-2013-0800 establishes those NMP minimum measures as requirements in the EWMPs that apply to all Dischargers so that separate NMPs must be developed only for land application activities at permitted CAFOs. Note, however, that the Order includes record keeping requirements that address all of the federally-required minimum NMP elements; those records are considered to constitute the NMP elements required by the federal regulations that are not directly related to land application activities. Specifically, the records that address 40 C.F.R. section 122.42(e)(1)(i)-(iv) are contained in Section X.C.1 of the MRP; those records represent the NMP for Dischargers that do not apply manure, litter, or process wastewater to land under their control.

The NMP minimum measure at 40 C.F.R. section 122.42(e)(1)(i) (ensure adequate storage capacity) requires permitted CAFOs to include in NMPs procedures to ensure proper operation and maintenance of manure, litter, and process wastewater storage facilities. That requirement is reflected in Section VII.C.3.a.i(e) of the Order. Examples of operation and maintenance procedures to help ensure adequate storage capacity include, but are not limited to

- Removal of solids from storage structures as needed to maintain the design storage capacity.
- Removal of manure and wastewater in accordance with the application timing and frequency in the NMP, if applicable, and the structure's design storage capacity.
- Maintaining storage capacity for the 25-year, 24-hour storm, or other design storm event used in sizing the impoundment for no discharge in accordance with the requirements of Section IV.B, for the location of the permitted CAFO.
- Preventing plants and burrowing animals from eroding or damaging storage structure berms, embankments, liners, and sidewalls.
- Maintaining vegetation, rock, riprap, or other materials used to prevent erosion and stabilize berms and embankments.
- Conducting the visual inspections required by Sections IV.C.1.a and c and corrective actions required by Section IV.C.1.d of the Order.

The NMP minimum measure at 40 C.F.R. section 122.42(e)(1)(vi) requires permitted CAFOs to implement site-specific conservation practices to minimize pollutant discharges to waters of the United States. That requirement is reflected in Section VII.C.3.b.ii of the Order. Subsection (b) requires Dischargers to incorporate applied manure soon after application or provide appropriate containment. This requirement is intended to minimize the opportunity for applied manure to be transported from the field in surface runoff, through volatilization (of nitrogen), or through wind transport. Incorporation is the preferred method to minimize the potential for nutrient loss through all of those mechanisms. However, the Colorado River Basin Water Board recognizes that incorporation of manure is not possible or appropriate under all circumstances. Where manure cannot be incorporated, the Discharger must provide containment, for example by using berms or channels to route stormwater runoff from the field away from waters of the U.S. All such conservation practices used to minimize discharge of pollutants to waters of the U.S. must be identified in the Discharger's NMP.

The Order reflects the 2008 revisions to 40 C.F.R. section 122.42(e)(5) regarding identification of site-specific NMP terms to be incorporated as permit conditions. The federal regulations define NMP "terms" as the "information, protocols, best management practices, and other conditions in the NMP determined by the Director to be necessary to meet the requirements" of the required NMP. The regulations allow for two alternative approaches to development of NMP terms. Section VII.C.3.b.iv of the Order incorporates the narrative rate approach presented in 40 C.F.R. section 122.42(e)(5)(ii), as it is the approach identified by USEPA as providing more flexibility for permitted CAFOs to make nutrient management adjustments throughout the permit term without triggering the need for additional public comment and permit revisions.

The Order also reflects the 2008 CAFO rule revisions regarding changes to NMPs. Because the regulations require specific information in a permitted CAFO's NMP to be identified as site-specific permit terms, the regulations also establish a process for permitting authorities to review changes to the approved NMP to determine whether those changes affect the terms that are permit conditions and, therefore, require a permit modification. (40 C.F.R. § 122.42(e)(6).) The NMP change and permit revision process is reflected in Section VII.C.3.b.xii of the Order.

The Order requires the development and implementation of engineered waste management plans (EWMPs) for all CAFOs in the Colorado River Basin Region to insure professional design, construction and operation of facility process wastewater and runoff containment systems to prevent prohibited process wastewater discharges to surface waters. The Order authorizes the Executive Officer to make necessary revisions to the guidelines for the preparation of an EWMP. Dischargers with approved EWMPs are advised that the guidelines for the preparation of an EWMP included in Attachment B have been revised to be consistent with the requirements of the Order.

The Order includes requirements that apply to CAFOs with onsite composting operations that are not covered by separate waste discharge requirements for the composting activities. Dischargers that operate composting operations onsite at the permitted facility and sell or give away more than 5,000 cubic yards of compost per year must enroll in the State Water Board's Composting General Order or obtain individual waste discharge requirements from the Colorado River Basin Water Board.

The Order requires annual reporting of manure production and the destination of all manure that is generated, animal population statistics, documentation of process wastewater containment system monitoring.

4. Construction, Operation, and Maintenance Specifications

These provisions are consistent with the requirements of previous Order R7-2013-0800 and are included to implement the requirements of California Code of Regulations, title 27, section 22562.

5. Other Special Provisions

Consistent with the CAFO regulatory management strategy described in this Fact Sheet, the Order includes special provisions for tracking manure transfers.

VIII. WATER CODE SECTION 13241 FACTORS FOR STATE LAW REQUIREMENTS

Water Code section 13241 requires the Colorado River Basin Water Board to consider certain factors when establishing water quality objectives, including:

- (a) Past, present, and probable future beneficial uses of water.
- (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
- (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

- (d) Economic considerations.
- (e) The need for developing housing within the region.
- (f) The need to develop and use recycled water.

The Colorado River Basin Water Board is not establishing any water quality objectives in the Order. However, Water Code section 13263 requires the Colorado River Basin Water Board to take into consideration the provisions of section 13241 in prescribing waste discharge requirements, when such requirements are more stringent than what federal law requires.

The addition of receiving water limitations for groundwater in the Order and groundwater monitoring requirements to verify compliance with those limitations go beyond what federal law requires. However, it is anticipated that Dischargers will use the same containment design standards, operation and maintenance standards, BMPs, and other water quality control measures necessary to comply with federal law to also achieve compliance with state law receiving water limitations for groundwater.

The Colorado River Basin Water Board has taken into consideration the factors in Water Code section 13241 as follows:

- a. **Beneficial Uses of Water.** This General Permit protects the beneficial uses of surface waters and groundwater identified in the region's Basin Plan, including through the addition of receiving water limitations for groundwater. A discussion of the designated beneficial uses for the Colorado River Basin Region is found in Section III.C.1 of the Fact Sheet. Applicable past, present, and probable future beneficial uses of waters within the Colorado River Basin Region were considered as part of the Basin Planning process and are reflected in the Basin Plan itself. Because this Order is applicable to a wide geographic area, it is appropriate to consider beneficial uses as identified in the Basin Plan and other applicable policies, rather than those identified through a site-specific evaluation that might be appropriate for WDRs applicable to a single discharger.
- b. **Environmental Characteristics of Hydrographic Unit.** Environmental characteristics of Colorado River Basin Region's waters have been considered in the development of this General Permit, as described in Sections II.D, III.D, VI.D.2, and IV.D.2 of the Fact Sheet. There is very little groundwater data for the Imperial Valley available, and therefore the groundwater quality underlying the CAFO facilities currently regulated in the region is largely unknown. The groundwater trend monitoring required by the Order would supply this data and identify any trends in degradation.
- c. **Water Quality Conditions Reasonably Achieved.** This General Permit provides a process to review water quality conditions that could reasonably be achieved through coordinated control of all factors which affect water quality in the area. The Fact Sheet discusses at length the water quality conditions that could reasonably be achieved by the Order from a technical or scientific standpoint. The provisions of the Order establish production area design standards and operational procedures. The Order requires the development and implementation of EWMPs and NMPs to control and abate the discharge of pollutants and to achieve compliance with applicable water quality standards utilizing BPT requirements established in the ELGs at 40 C.F.R. part 412. At this time, the Colorado River Basin Water Board is not requiring Dischargers

to undertake any additional water quality control measures beyond those required to implement federal law.

- d. **Economic Considerations.** Based on currently available information on the groundwater monitoring well installation and sampling/laboratory analysis, staff has estimated the cost of compliance for the groundwater trend monitoring. Significant uncertainties in several key areas of the program prevent the precise estimation of program costs, including, but not limited to: the total number of monitoring sites required to evaluate water quality conditions from either individual Dischargers or the Representative Monitoring Program (RMP) developed for permittees that are located in close proximity to each other, overlaying the same groundwater subbasin. This economic analysis provides a baseline overview of the costs associated with the reasonably foreseeable means of compliance with this Order. The results of this analysis are summarized in the Table F-3.

Table F-3. Cost Estimation for Groundwater Trend Monitoring

Item	One Time Cost	Monitoring Cost
Monitoring Plan Preparation	\$10,000 - \$15,000	---
Monitoring Well Installation (3 wells)	\$13,822 ⁹	---
Sampling/Laboratory Analyses (3 wells)	---	\$1,757 ¹⁰

The Colorado River Basin Water Board has provided the Discharger significant flexibility to choose how to implement the groundwater trend monitoring requirements. The Discharger can choose to implement the least expensive measures that are effective in meeting the requirements of this Order.

The Permittee is required to secure the resources necessary to meet the requirements of this Order. The Clean Water State Revolving Fund (CWSRF) program offers low-cost financing for a wide variety of water quality projects.

- e. **Need for Housing.** The Colorado River Basin Water Board finds that the receiving water limitations and groundwater trend monitoring requirements will have no direct effect on the need for housing.
- f. **Need to Develop and Use Recycled Water.** The Colorado River Basin Water Board finds that the receiving water limitations and groundwater trend monitoring requirements will have no direct effect on the need to develop and use recycled water.

Considering the above, the Colorado River Basin Water Board finds the requirements in this Order are reasonably necessary to protect beneficial uses identified in the Basin Plan

⁹ Installation of 3 borings to 30 feet, converted to 2-inch monitoring wells based on the State Water Board underground storage tank cleanup fund [2018 cost guideline](https://www.waterboards.ca.gov/water_issues/programs/ustcf/docs/cost_guidelines/2018_cost_guidelines_update.pdf).
https://www.waterboards.ca.gov/water_issues/programs/ustcf/docs/cost_guidelines/2018_cost_guidelines_update.pdf

¹⁰ Based on the market prices of laboratory charges for TDS, Nitrate, pH, E-coli and Enterococcus (\$195/per well), labor cost (\$109/per hour based on [2018 Cost Guideline](#) for 8 hours for geologist is a total of \$872) and sample shipping cost (\$300).

and the economic information related to costs of compliance supports protecting those beneficial uses.

VIII. PUBLIC PARTICIPATION

The Colorado River Basin Water Board is considering the issuance of General WDRs that will serve as an NPDES permit for CAFOs. As a step in the WDRs adoption process, Colorado River Basin Water Board staff has developed tentative WDRs. The Colorado River Basin Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Colorado River Basin Water Board has notified Existing Enrollees and interested agencies and persons of its intent to prescribe General WDRs for discharges from CAFOs and has provided them with an opportunity to submit written comments and recommendations.

The public had access to the draft order and the agenda and any changes in dates and locations through the Colorado River Basin Water Board's website at:

<https://www.waterboards.ca.gov/coloradoriver>.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Colorado River Basin Water Board at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260.

To be fully responded to by staff and considered by the Colorado River Basin Water Board, written comments were due at the Colorado River Basin Water Board office by **5:00 p.m. on October 25, 2021**.

C. Public Hearing

The Colorado River Basin Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: November 2, 2021
Time: 9:00 AM
Location: California Regional Water Quality Control Board
Colorado River Basin Region Board Room
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Interested persons were invited to attend. At the public hearing, the Colorado River Basin Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Colorado River Basin Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 days of the Colorado River Basin Water Board's action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see
https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.s.html

E. Information and Copying

The Reports of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Colorado River Basin Water Board by calling (760) 346-7491.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the General WDRs and NPDES permit should contact the Colorado River Basin Water Board, reference this Order, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Kai Dunn at (760) 776-8986.

ATTACHMENT G ANNUAL REPORT

California Regional Water Quality Control Board
Colorado River Basin Region (R-7)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491

Reporting Period: January 1, 20____ to December 31, 20____
Report Due Date: February 15, 20____

PART A – ANNUAL REPORT OF ANIMAL WASTE DISCHARGE

I. Facility Information (Please make corrections directly on this form.)
Operator's Name:
Facility Name:
Facility Address:
Mailing Address:
Telephone Number:
Email Address:

Does the information provided apply only to the facility address indicated above?

☐ Yes ☐ No

If No, please provide the name and address of the other facilities in the comment section of this report.

Note: Submit a separate report for each of your facilities including dry cow, heifer, and calf ranches.

II. Type And Number Of Animals

Report the maximum number of each type of animal confined at this facility at any one time (and, for dairies, the number of milkings per day).

Type	Number in Open Confinement	Number Housed Under Roof
Mature Dairy Cows		
Number of milkings per day	(dairies only)	<input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three
Dairy Heifers		
Veal Calves		
Other Cattle		
Swine (55 lb. or more)		
Swine (under 55 lb.)		
Horses		
Sheep or Lambs		

Turkeys		
Chickens (broilers)		
Chickens (layers)		
Ducks		
Other: (specify): _____		

III. Manure, Litter, And Process Wastewater Production

Report the estimated amount of manure, litter, and process wastewater that were generated at this facility during the 12-month reporting period identified at the top of this report.

A. Amount of manure generated during the reporting period: _____ tons.
B. Amount of manure generated during the reporting period that is stockpiled on site as of 12/31/20____: _____ tons
C. Amount of litter generated during the reporting period: _____ tons.
D. Amount of process wastewater generated during the reporting period: _____ gallons.

Were the production factors provided below used to estimate your manure information?

Provided Production Factors	Productions Factors Used	Provide Other Production Factor, if used
Beef cattle produce approximately 1.5 tons per animal per year of manure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 Milking cow produces approximately 4.1 tons per year of manure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 Dry cow produces approximately 4.1 tons per year of manure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 Heifer produces approximately 1.5 tons per year of manure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 Calf produces 0.6 tons per year of manure.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 ton of corral manure equals 2.32 cubic yards.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1 cubic yard of corral manure equals 0.43 tons.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

IV. Manure, Litter, and Process Wastewater Transferred to Other Persons

Report the estimated amount of manure, litter, and process wastewater that were transferred to other persons during the 12-month reporting period identified at the top of this report.

A. Amount of manure transferred during the reporting period: _____ tons.
B. Amount of litter transferred during the reporting period: _____ tons.
C. Amount of process wastewater transferred during the reporting period: _____ gallons.

V. Summary of Production Area Discharges

Report all discharges of manure, litter, and process wastewater from the production area to waters of the United States during the 12-month reporting period.

Date of Discharge	Time of Discharge	Estimated Volume

VI. Instances of Noncompliance Not Previously Reported

During the reporting period were there any instances of noncompliance which have not been reported to the permitting authority? _____ Yes _____ No

If yes, please provide the information requested below.

- ☐ Description of the noncompliance and its cause.
- ☐ The period that the operation was in noncompliance with permit conditions, including exact dates and times.
- ☐ In those cases where noncompliance has not been corrected, the anticipated time it is expected to continue.
- ☐ Description of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

VII. Certification of Preparation of Inspection Logs And Manifests

- ☐ I certify that a CAFO Stormwater Management Structure Inspections Log has been prepared for and is maintained at this facility.
- ☐ I certify that a Water Line Inspections Log has been prepared for and is maintained at this facility.
- ☐ I certify that a Manure Tracking Manifest has been prepared for each manure hauling event that have occurred at this facility (Large CAFOs only).

PART B – COMPOSTING INVENTORY

I certify that no composting occurs at this facility. (If box is checked, skip to Part C.)

	January	February	March	April	May	June	July	August	September	October	November	December
I. Materials Monitoring												
Quantity (tons) and description of manure received from each source												
Quantity (tons) and description of green waste received from each source												
Quantity (tons) and description of fertilizer received from each source												
Quantity of composted material (tons) shipped off-site												
Estimated quantities of raw materials, in-process-inventory and finished												

	January	February	March	April	May	June	July	August	September	October	November	December
II. Flood Protection Monitoring¹												
The Discharger shall inspect all internal and external flood protection facilities at least quarterly and following each storm which generates any stormwater flow through the drainage system. Indicate whether these inspections were conducted for each quarter.												

¹ If significant damage to the flood protection facilities is found, the Discharger shall report this information to the Colorado River Basin Water Board immediately by telephone, and transmit by letter within five business days of its occurrence the following information:

- a. Location and extent of damage;
- b. Interim measures to be taken to assure that no wastes are discharged from the facility; and
- c. Time schedule for repairs

III. Stormwater Monitoring
1. Did any stormwater discharge(s) occur from the composting operations? <input type="checkbox"/> Yes <input type="checkbox"/> No 2. If yes, attach the results of all stormwater discharge analyses to this report and/or explain why any stormwater discharges from the composting operations were not analyzed for the required parameters: <input type="checkbox"/> Check if analysis results are attached. If any stormwater discharges from the composting operations were not analyzed for the required parameters, explain below:

IV. Operation and Maintenance

Document any erosion control or drainage problems and/or related maintenance:

PART C – LAND APPLICATION OF MANURE, LITTER, AND PROCESS WASTEWATER REPORT

I certify that no land application of manure, compost, litter, and/or process wastewater occurs at this facility. (If box is checked, skip to Part D.)

I. Nutrient Management Plan

Indicate whether the facility's Nutrient Management Plan (NMP) was either prepared or approved by a certified nutrient management planner. *Note: The Colorado River Basin Water Board does not require CAFO owners or operators to use a certified nutrient management planner to prepare or approve NMPs.*

Was the current version of this facility's NMP prepared or approved by a certified nutrient management planner? ☐ Yes ☐ No

II. Acres Used for Land Application

Report the total number of acres of land that are covered by this facility's NMP. Include all land application acres covered by the NMP, whether or not they were used for land application during the reporting period.

A. Total number of land application acres covered by the NMP: _____ acres.

Report the total number of acres of land where manure, litter, or process wastewater generated at this facility was spread. Include only land application areas that are under the control of this CAFO facility.

B. Total number of acres under the control of the CAFO used for land application during the reporting period: _____ acres.

III. Nutrient Analyses

Report the nutrient content of the manure, litter, and process wastewater that was applied during the reporting period. Report the results that were used to calculate nutrient application rates for the crops that were harvested during the reporting year. Attach additional sheets if needed.

Source sampled ^a	Sample date ^b	Analytical Results			
		NH ₄ -N	TKN	TP	Units ^c

- a. Identify the manure type (e.g., liquid, slurry, solid, compost, litter, etc.) that was sampled and the storage structure sampled (if more than one structure used to store that type of manure). Use a separate line for each unique source. The source identification should correspond to those used in the approved NMP.
- b. Indicate the date of the sample results reported.
- c. Indicate the reporting units (i.e., mg/L, mg/kg, lb/ton, or lb/1,000 gallons).

Report the results of the most recent soil nutrient analyses used in calculating nutrient application rates for the crops harvested during the reporting year. If soil is not analyzed for nitrogen, report the calculated amount of plant available nitrogen in each field used to determine land application rates. Attach additional sheets if needed.

Field ID ^a	Sample Date ^b	Analytical Results						Calculated	
		Soluble P			Nitrogen ^e				
		Result	Units ^c	Method ^d	Result	N form ^f	Units ^c	PAN ^g	Units ^c

- a. List all fields where manure, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP.
- b. Indicate the date of the sample results reported.
- c. Indicate the reporting units (i.e., mg/kg or lbs/acre).
- d. Indicate the extraction method used.
- e. Note that the permit does not require soil nitrogen analysis. Report the results if soil nitrogen analyses if they were conducted.
- f. Indicate the nitrogen form analyzed. Use multiple rows for multiple forms of N.
- g. Indicate the calculated amount of plant available nitrogen in the soil, if soil nitrogen analyses were not used in calculating nutrient application rates.

IV. Crop Growing Activity and Land Application

For each field where manure, litter, or wastewater was applied, report the actual crops grown in each field, the actual yield achieved, the amount of manure, litter, or wastewater planned to be applied and the actual amount of manure, litter, and wastewater applied. Report the information for the crop year ending during the 12-month reporting period. Attach additional sheets if needed.

[illegible]

Field ID ^a	Crop(s) Grown ^b	Yield ^c	Yield Units ^d	Planned Manure to be Applied ^e				Actual Manure Applied ^f			
				Solid (Tons)	Compost (Tons)	Liquid (Gallons)	Other ^g : _____	Solid (Tons)	Compost (Tons)	Liquid (Gallons)	Other ^g : _____

- List all fields where manure, compost, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP.
- List all crops grown (harvested during the reporting period) in each field during the reporting period.
- Report the actual yield achieved for each crop in each field.
- Report the per-acre yield units (e.g., tons/acre, bushels/acre)
- Report the calculated amount of manure, litter, or wastewater to be applied, determined in accordance with the methodology and terms of the approved NMP.
- Report the actual amount of manure, compost, litter, or wastewater applied.
- If "Other" is selected, write in the type of manure, litter, or wastewater to be applied

For each field where manure, compost, litter, or wastewater was applied, report the spreadable acres and the amount of total nitrogen and phosphorus applied per acre from commercial fertilizer during the 12-month reporting period. Attach additional sheets if needed.

Field ID^a	Spreadable Acres	Commercial Nitrogen Applied (as N)	Commercial Phosphorus Applied (as P)
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre
		Pounds/Acre	Pounds/Acre

a. List all fields where manure, compost, litter, or process wastewater was applied during the reporting period. The field ID should correspond to those used in the approved NMP

PART D – GROUNDWATER MONITORING REPORT

Attach the results of quarterly groundwater monitoring conducted in accordance with the CAFO's approved groundwater monitoring program, if required by the Colorado River Basin Water Board. Check the appropriate box(es) below.

☐ A groundwater monitoring program is required for this facility.

☐ Monitoring results are attached.

☐ Monitoring results are not attached. Explain:

☐ Not applicable. A groundwater monitoring program is not required for this facility.

PART E – CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Title: _____

Print Name: _____

Submit by: February 15, 20____

Submit to: California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA. 92260

ATTACHMENT H MANURE TRACKING MANIFEST

Manure Tracking Manifest Colorado River Basin Water Board
Instructions <ol style="list-style-type: none"> 1. Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination. 2. If there are multiple destinations, complete a separate form for each destination. 3. The operator must obtain the signature of the hauler upon completion of each manure hauling event. 4. The operator shall maintain manure tracking manifests on site at the permitted facility.
Operator Information
Name of Operator:
Name of Facility:
Facility Address:
Mailing Address:
Phone Number:

Manure Hauler Information	
Name of Hauling Company and Contact Person:	Phone Number:
Destination information	
Hauled to (please check one): <input type="checkbox"/> Composting Facility <input type="checkbox"/> Regional Digester <input type="checkbox"/> Riverside County <input type="checkbox"/> San Bernardino County <input type="checkbox"/> Imperial County <input type="checkbox"/> San Diego County <input type="checkbox"/> Other County/State: (Please list below) <hr style="width: 30%; margin-left: 0;"/>	Dates Hauled: <hr style="width: 80%; margin-left: 0;"/> Please give name and location of the composting operation, or, if the manure was hauled to cropland, the owner or tenant, and the destination address, or nearest cross streets. <hr style="width: 80%; margin-left: 0;"/> <hr style="width: 80%; margin-left: 0;"/>

Please enter the amount in the box below and circle the appropriate units:

Amount removed from Facility	Amount Composted	Amount to Digester
Tons or Cubic Yards	Tons or Cubic Yards	Tons or Cubic Yards

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: _____ Date: _____

ATTACHMENT I STORMWATER AND WASTEWATER MANAGEMENT STRUCTURE AND WATER LINES INSPECTION FORM

CAFO Weekly Stormwater and Wastewater Management Structure and Daily Water Lines Inspections Log Sheet

Facility Name: _____ NPDES Permit No.: _____ CAG017001

Instructions: Use this form to keep track of weekly visual inspections of your wastewater and stormwater management structure(s) (including stormwater and runoff diversion devices, and devices used to channel contaminated stormwater to a wastewater storage or containment structure) and daily water line inspections (including drinking water lines and cooling water lines). List the items that need to be inspected below.

_____	_____
_____	_____
_____	_____
_____	_____

Keep track of your inspections in the following table by filling out one row each week when you inspect your stormwater management structures and water lines. Provide the following information:

- ✓ the date of the inspection
- ✓ the initials of the inspector
- ✓ check the "OK" box if no problems were found
- ✓ use the "Notes" column to describe problems, if you find any, and how they might be fixed
- ✓ fill in the "date corrected" column with the date when you correct the problem
- ✓ check the box indicating daily water line inspections were conducted

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 1						
Week 2						
Week 3						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 4						
Week 5						
Week 6						
Week 7						
Week 8						
Week 9						
Week 10						
Week 11						
Week 12						
Week 13						
Week 14						
Week 15						
Week 16						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 17						
Week 18						
Week 19						
Week 20						
Week 21						
Week 22						
Week 23						
Week 24						
Week 25						
Week 26						
Week 27						
Week 28						
Week 29						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 30						
Week 31						
Week 32						
Week 33						
Week 34						
Week 35						
Week 36						
Week 37						
Week 38						
Week 39						
Week 40						
Week 41						
Week 42						

	Date	Initials	OK (✓ if no problems found)	Notes (Note any problems found and possible solutions.)	Date Corrected	Daily Inspections Conducted? (Yes/No)
Week 43						
Week 44						
Week 45						
Week 46						
Week 47						
Week 48						
Week 49						
Week 50						
Week 51						
Week 52						

ATTACHMENT J – DISCHARGE NOTIFICATION FORM

California Regional Water Quality Control Board
Colorado River Basin Region (R-7)
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491

Discharge Notification Form

Facility
Name: _____

NPDES Permit
No.: _____

CAG017001

If you have a discharge from the production area or land application area(s):

1. Call the Governor's Office of Emergency Services (800) 852-7550 and the Regional Water Quality Control Board (760) 346-7491 as soon as:
 - a. You know about the discharge,
 - b. Notification is possible, and
 - c. You can provide notification without substantially impeding cleanup or other emergency measures.
2. Within 24 hours, submit a certification to the Colorado River Basin Water Board that you have notified the Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies.
3. Keep a record of the approximate date, time, duration, location, description, and volume of the discharge.
4. Conduct discharge monitoring and receiving water monitoring as described in the MRP (Sections IV.A, VIII.A and B, and IX.F)
5. Submit this form to the Colorado River Basin Water Board within 5 days of the discharge, as required by Section XI.D of the Monitoring and Reporting Program.

Describe each discharge of manure, litter, and/or process wastewater from the production area or land application area(s) under the ownership or operational control of the Discharger (except agricultural stormwater discharges). Attach additional sheets, if needed.

Date ^a	Time ^b	Duration ^c	Location ^d	Description ^e	Volume ^f

^a **Date:** The date of the discharge. If the discharge was detected after it happened, give an estimate of the date when the discharge occurred.

^b **Time:** The time of the discharge. If the discharge was detected after it happened, give an estimate of the time when the discharge occurred.

^c **Duration:** The duration of the discharge.

^d **Location:** The location of the discharge to waters of the U.S. Be specific. Include the name of the water body, and a specific description of where the manure, litter, or process wastewater entered the water body. Include landmarks or other points of reference (e.g., Three Mile Creek, at southeast corner of feedlot where creek bends to the west).

^e **Description:** Provide other relevant information about the discharge, including the source, cause, composition (e.g., emergency overflow of process wastewater from lagoon #2), and impacts observed (e.g., fish kill in waterbody).

^f **Volume:** Give an estimate of the number of gallons or tons of manure, litter, or process wastewater discharged

Provide analytical results from each discharge of manure, compost, litter, and/or process wastewater that occurred during the reporting period. Attach additional sheets, if needed.

Parameter	Units	Result	Method Detection Level (MDL)
Volume	Gallons or Acre-Inches		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total	mg/L		
Dissolved Oxygen	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 ml		
Fecal Coliform	MPN/100 ml		
Enterococcus ¹	MPN/100 ml		

¹ For discharges to the New River

Provide analytical results from the receiving water for each discharge of manure, compost, litter, and/or process wastewater that occurred during the reporting period. Attach additional sheets, if needed.

Upstream (monitoring location RSW-001)

Describe monitoring location:

Parameter	Units	Result	Method Detection Level (MDL)
pH	Standard Units		
Temperature	°F		
Dissolved Oxygen	mg/L		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total (as P)	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 mL		
Fecal Coliform	MPN/100 mL		
Enterococcus ¹	MPN/100 mL		

¹ For discharges to the New River

Downstream (monitoring location RSW-002)

Describe monitoring location: _____

Parameter	Units	Result	Method Detection Level (MDL)
pH	Standard Units		
Temperature	°F		
Dissolved Oxygen	mg/L		
Nitrate-Nitrogen	mg/L		
Total Kjeldahl Nitrogen	mg/L		
Phosphorus, Total (as P)	mg/L		
Total Dissolved Solids	mg/L		
Total Suspended Solids	mg/L		
E. coli	MPN/100 mL		
Fecal Coliform	MPN/100 mL		
Enterococcus ¹	MPN/100 mL		

¹ For discharges to the New River**If you have a discharge from the composting operations:**

1. Keep a record of the approximate date, time, duration, location, description, and volume of the discharge.
2. Conduct discharge monitoring as described in the MRP (Sections IV.A and IX.F)
3. Submit this form to the Colorado River Basin Water Board within 5 days of the discharge, as required by Section XI.D of the Monitoring and Reporting Program.

Provide analytical results from each discharge of stormwater from composting operations. Attach additional sheets, if needed.

Parameter	Units	Result	Method Detection Level (MDL)
Total Suspended Solids	mg/L		
pH	pH units		
Specific Conductance	µmhos/cm		
Total Organic Carbon ¹	mg/L		
Iron ²	mg/L		
Nitrate+Nitrite Nitrogen ²	mg/L		
Lead ²	µg/L		
Zinc ²	µg/L		
Phosphorus, Total ²	mg/L		

¹ Oil and grease may be substituted for total organic carbon.² Additional analytical parameters required under State Water Board Industrial Stormwater Permit (NPDES CAS000001) for activities only under SIC 287X.

ATTACHMENT K – NOI FORM

Notice of Intent (NOI) To Comply with the Terms of the Board Order R7-2021-0029 Permit to Discharge Wastes Associated with Concentrated Animal Feeding Operations (CAFOs) (NPDES No. CAG017001)

I. PERMITTEE (Person/Agency Responsible for Discharge):

Owner/Operator Name: _____

Location: _____
 Street City State ZIP

Contact Person: _____

Phone (_____) _____

E-mail: _____

II. FACILITY (Physical Address):

Location: _____
 Street City State ZIP

Contact Person: _____

Phone (_____) _____

E-mail: _____

III. FACILITY INFORMATION:

Latitude: _____ Longitude: _____

Topographic Map of Facility _____ Yes _____ No

Total area (acres) _____ Cropland (acres) _____ Corrals (acres) _____

Disposal Pasture (acres) _____ Number of acres contributing drainage _____

IV. ANIMAL POPULATION (specify number):

Dairy Cows: _____ Cattle: _____ Swine: _____

Poultry: _____ Veal Calves: _____ Other (specify type): _____

V. MANURE, LITTER AND/OR WASTEWATER PRODUCTION AND USE:

How much manure, litter, and wastewater are produced annually? _____
tons/gallons

If land applied, how many acres of land under the control of permittee are available for
applying manure/litter/wastewater? _____ acres.

How many tons of manure or litter or gallons of wastewater will be transferred annually to other
persons? _____ tons/gallons

VI. TYPE OF CONTAINMENT AND CAPACITY:

Holding Ponds (gallons) _____ Evaporation Ponds _____ (gallons)

Lagoons (gallons) _____ Others (specify) _____ (gallons)

VII. TYPE OF STORAGE:

Anaerobic Lagoon: Total number of days ____ Total capacity ____
Storage Lagoon: Total number of days ____ Total capacity ____
Evaporation Pond: Total number of days ____ Total capacity ____
Concrete Pad: Total number of days ____ Total capacity ____
Impervious Soil Pad: Total number of days ____ Total capacity ____
Other (specify): Total number of days ____ Total capacity ____

VIII. NUTRIENT MANAGEMENT (NMP):

Will you comply with an existing, approved NMP for this facility? ____ Yes ____ No

Date of last approved review/revision of the NMP Date: _____

Are you submitting a new or amended NMP for approval for this facility? ____ Yes ____ No

Is the new or amended NMP enclosed? ____ Yes ____ No

If no, please explain _____

IX. ENGINEERING WASTE MANAGEMENT PLAN (EWMP):

Will you comply with an existing, approved EWMP for this facility? ____ Yes ____ No

Date of last approved review/revision of the EWMP Date: _____

Are you submitting a new or amended EWMP for approval for this facility? ____ Yes ____ No

Is the new or amended EWMP enclosed? ____ Yes ____ No

If no, please explain _____

X. CERTIFICATION:

I certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: _____

Title: _____

Print Name: _____

Send the completed Notice of Intent to the Colorado River Basin Water Board