

ATTACHMENT E
ORDER R5-2017-0000

DEFINITIONS
FOR
CONFINED BOVINE FEEDING OPERATIONS

1. “Additive” is defined as material mixed with compost, feedstocks or added during the composting process to adjust the moisture content, carbon to nitrogen ratio, or porosity. Additives can include fertilizers.
2. “Agronomic rates” is defined as the land application of irrigation water and nutrients (which may include animal manure, bedding, or wastewater) at rates of application in accordance with a plan for nutrient management that will enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth.
3. “Amendment” is defined as material added to stabilized or cured compost (once composting is completed) to provide attributes such as increased bulk, increased nutrient value, or a change in pH.
4. “Anaerobic digester” is defined as a basin, pond, or tank designed, constructed, maintained, and operated for the anaerobic treatment of liquid or solid animal waste and which promotes the decomposition of manure or “digestion” of the organics in manure to simple organics and gaseous biogas products.
5. “Animal Unit or AU”, for the purposes of the Order, is a measure of a quantity of bovine animals which equals 1,000 pounds of animal weight.
6. “As short as practicable” is defined as the shortest time required to implement an action, as demonstrated by appropriate technical and economic justifications. The justifications are subject to review and concurrence by the Executive Officer.
7. “Aquifer” is defined as groundwater that occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs.
8. “Calendar quarter” is defined as one of four three-month periods during the calendar year. The calendar quarters are: Quarter 1 - 1 January through 30 March; Quarter 2 – 1 April through 30 June; Quarter 3 – 1 July through 30 September; and Quarter 4 – 1 October through 31 December.
9. “Central Valley Water Board” is defined as the California Regional Water Quality Control Board, Central Valley Region.
10. “Certified Nutrient Management Plan” is defined as a nutrient management plan that is prepared and signed by a specialist who is certified in developing nutrient

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management plans. A certified specialist is: a Professional Soil Scientist, Professional Agronomist, Professional Crop Scientist, or Crop Advisor certified by the American Society of Agronomy; a Technical Service Provider certified in nutrient management in California by the Natural Resources Conservation Service; or other specialist approved by the Executive Officer.

11. "Confined animal facility" is defined in California Code of Regulations, title 27, section 20164 as "... any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing."
12. "Confined area" is defined as the area where animals are confined within the production area.
13. "Confined Bovine Feeding Operations" means commercial operations where cattle (cows, bulls, steers, heifers, or calves) representing 6 or more Animal Units (AU) are confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained over a majority of the confinement area during the normal growing season. Confined Bovine Feeding Operations include, but are not limited to: beef cattle stockyards, finishing yards, and/or auction yards; calf ranches; dairy heifer operations; and veal calf facilities. Confined Bovine Feeding Operations do not include operations where animals primarily graze on pasture or rangeland, including any corrals that are contiguous with and an integral part of the grazing or pasture operations. However, corrals or other confinement areas used to finish cattle for slaughter at a grazing operation are considered Confined Bovine Feeding Operations requiring coverage under this Order.
14. "Cropland" is defined as the land application area where dry or solid manure and/or wastewater is recycled for the purpose of beneficially using the nutrient value of the manure and/or wastewater for crop production.
15. "Degradation" is defined as any measurable adverse change in water quality.
16. "Discharge" is defined as the discharge or release of waste to land, surface water, or groundwater.
17. "Discharger" is defined as the property owner and/or the operator of a Confined Bovine Feeding Operation subject to Waste Discharge Requirements General Order R5-2017-0000.
18. "Dry season" is defined as the period of time between 1 June and 30 September of each year.
19. "Existing herd size" is defined as the maximum number of bovine animals (beef cattle, bulls, heifers, and calves) housed at the facility in a single month period that

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occurred in the three years immediately prior to the issuance of the tentative Order, 10 February 2017, or the maximum herd size identified in an approved CEQA document or other regulatory document that has gone through CEQA or a CEQA-equivalent process..

20. "Expansion" is defined as, but not limited to, any increase in the existing herd size (i.e., an increase in Animal Units beyond the number calculated and reported in the Notice of Intent) or an increase in the storage capacity of the retention ponds or acquisition of more acreage for reuse of nutrients from manure or wastewater in order to accommodate an expansion of the existing herd size. "Expansion" does not include installation or modification of facilities or equipment to achieve compliance with the requirements of Waste Discharge Requirements General Order R5-2017-0000 so long as the modification or installation is sized to accommodate only the existing herd size.
21. "Facility" is defined as a Confined Bovine Feeding Operation subject to Waste Discharge Requirements General Order R5-2017-0000.
22. "Field" is defined as cropland and does not include non-farmable surfaces such as roads and perimeter ditches, or structures, such as barns or sheds.
23. "Field moisture capacity" is defined as "the upper limit of storable water in the soil once free drainage has occurred after irrigation or precipitation."
24. "Freeboard" is defined as the elevation difference between the wastewater (liquid) level in a pond and the lowest point of the pond embankment or unsealed pipe through the embankment which would allow overflow or uncontrolled release of wastewater.
25. "Incorporation into soil" is defined as the complete infiltration of wastewater into the soil, the disking or rotary tiller mixing of manure into the soil, shank injection of slurries into soil, or other equally effective methods of combining nutrients with soil.
26. "Irrigation return flow" is defined as surface and subsurface water that leaves a field following application of irrigation water.
27. "Land application area" is defined as land under control of the Confined Bovine Feeding Operation owner or operator, whether it is owned, rented, or leased, to which manure or wastewater from the production area is or may be applied for nutrient recycling. This includes property owned by a third party where agreements with the Discharger require the third party to accept wastewater at a time determined by the Discharger. Fields that are planted in the same crop and are irrigated, fertilized, and harvested at the same time and in the same way can be considered a single land application area.

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28. "Local Enforcement Agency" is defined as the agency at the county or local level which bears responsibility for ensuring the correct operation and closure of solid waste facilities, and for guaranteeing the proper storage and transportation of solid waste.
29. "Major storm event" is defined as a storm event that results in a minimum of one inch of precipitation within 24 hours.
30. "Manure" is defined as the fecal and urinary excretion of livestock and other commingled materials. Manure may include bedding and waste feed.
31. "Manure solids" is defined as manure that has sufficient solids content such that it will stack with little or no seepage.
32. "Normal precipitation" is defined as the long-term average precipitation based on monthly averages over the time that data has been collected at a particular weather station. Normal precipitation is usually taken from data averaged over a 30-year period (e.g. 1981 to 2010) if such data is available.
33. "Notice of Intent" or "NOI" is defined as the form used to serve as a notification of the intention of the facility identified on the form to adhere to the provisions of the General Order.
34. "Nuisance" is defined in Water Code section 13050(m) as "*...anything which meets all of the following requirements:*
 - (1) *Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.*
 - (2) *Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.*
 - (3) *Occur during, or as a result of, the treatment or disposal of wastes.*"
35. "Nutrient" is defined as any element taken in by a plant which is essential to its growth and which is used by the plant in elaboration of its food and tissue.
36. "Nutrient Management Plan" or "NMP" is defined as a plan written by a certified nutrient consultant in accordance with the Technical Standards to manage the amount, placement, timing and application of nutrients in order to reduce nutrient loss or runoff and to maintain the productivity of soil when growing agricultural commodities.
37. "Nutrient recycling" is defined as the application of nutrients at agronomic rates for crop production.

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38. "Off-property discharge" is defined as the discharge or release of waste beyond the boundaries of the property of the Confined Bovine Feeding Operation's production area or the land application area or to water bodies that run through the production area or land application area.
39. "Open tile line intake structure" is defined as an air vent for a subsurface (tile) drain system.
40. "Operator" is defined as any person who is in control of, or has responsibility for, the operation of the Facility.
41. "Order" is defined as Waste Discharge Requirements General Order R5-2017-0000.
42. "Overflow" is defined as the intentional or unintentional diversion of flow from the collection, treatment, land application, and conveyance systems, including pumping facilities.
43. "Owner" is defined as any person who owns a Facility.
44. "Pasture" is defined as grazing lands comprised of introduced or domesticated native forage species that are used primarily for the production of livestock. They receive periodic renovation and/or cultural treatments such as tillage, fertilization, mowing, weed control, and may be irrigated. They are not in rotation with crops. (from USDA NRCS National Range and Pasture Handbook)
45. "Pollutant" is defined in Title 40 Code of Federal Regulations Section 122.2 as *"...dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended [42 U.S.C.2011 et seq.]), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water."*
46. "Pollution" is defined in Water Code section 13050(l)(1) as *"...an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses."*
47. "Pond" is defined as retention ponds, storage ponds, settling basins, or any structures used for the treatment, storage, disposal, and recycling of wastewater. Ponds are differentiated from sumps, which are structures in a conveyance system used for the installation and operation of a pump.

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48. "Production area" is defined as that part of a Confined Bovine Feeding Operation that includes the barns, corrals, manure storage area, raw materials storage area, water conveyances, and any other area of the facility that is not the land application area. The production area includes the wastewater storage ponds.
49. "Public water system" is defined as a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:
 - a. Any collection, treatment, storage, or distribution facilities under control of the operator of the system that are used primarily in connection with the system.
 - b. Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
 - c. Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.
50. "Regional Board" is defined as one of the nine California Regional Water Quality Control Boards.
51. "Salt" is defined as the products, other than water, of the reaction of an acid with a base. Salts commonly break up into cations (sodium, calcium, etc.) and anions (chloride, sulfate, etc.) when dissolved in water. Total dissolved solids is generally measured as an indication of the amount of salts in a water or wastewater.
52. "Salt in animal rations" is defined as the sodium chloride and any added minerals (such as calcium, phosphorus, potassium, sulfur, iron, selenium, copper, zinc, or manganese) in the animal ration.
53. "Significant (quantity)" is defined as the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.
54. "Sole-source aquifer" is defined as an aquifer that supplies 50 percent or more of the drinking water of an area.
55. "State" is defined as the State of California.
56. "State Water Board" is defined as the State Water Resources Control Board.
57. "Solid separation facilities" are defined as settling basins or mechanical separators used to separate manure solids from wastewater. Excavators or loader scrapers are not solid separation facilities.

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58. "Storm water" is defined as storm water runoff, snowmelt runoff, and surface runoff and drainage.
59. "Subsurface (tile) drainage" is defined as water generated by installing and operating drainage systems to lower the water table below irrigated lands. Subsurface drainage systems, deep open drainage ditches, or drainage wells can generate this drainage.
60. "Surface water" is defined as water that includes essentially all surface waters such as navigable waters and their tributaries, interstate waters and their tributaries, intrastate waters, all wetlands and all impoundments of these waters. Surface waters include irrigation and flood control channels.
61. "Tailwater" is defined as the runoff of irrigation water that has not been blended with wastewater from an irrigated field.
62. "25-year, 24-hour rainfall event" is defined as a precipitation event with a probable recurrence interval of once in twenty-five years as estimated by the National Oceanic and Atmospheric Administration's National Weather Service, Hydrometeorological Design Studies Center, Precipitation Frequency Data Server, NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: CA (http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca), or equivalent regional or State rainfall probability information developed from this source.
63. "Waste" is defined as set forth in Water Code section 13050(d), and includes manure, leachate, wastewater and any water, precipitation or rainfall runoff that comes into contact with raw materials, products, or byproducts such as manure, compost piles, feed, silage, or bedding.
64. "Waste Management Plan" or "WMP" is defined as a plan written in accordance with the Confined Bovine Feeding Operations General Order that documents and recommends a combination of conservation practices and management measures for the handling, storage, treatment and management of manure or wastewater from a Confined Bovine Feeding Operation.
65. "Wastewater" is defined as water directly or indirectly used in the operation of a Confined Bovine Feeding Operation for any or all of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or facilities; washing or spray cooling of animals; or dust control, and includes any water or precipitation and precipitation runoff which comes into contact with any raw materials, products, or byproducts including manure, feed, or bedding. Wastewater includes leachate or any other liquid flowing from, or on, the working surface of a composting operation, or any water that comes in contact with compost, additives, amendments, or feedstocks.

66. "Waters of the State" is defined in Water Code section 13050 as "*...any surface water or groundwater, including saline waters, within the boundaries of the state.*"
67. "Wet season" is defined as the period of time between 1 October and 31 May of each year.