

ATTACHMENT E

Definitions For Existing Milk Cow Dairies

1. “Agronomic rates” is defined as the land application of irrigation water and nutrients (which may include animal manure, bedding, or process 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.
2. “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.
3. “Aquifer” is defined as ground water that occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs.
4. “Artificial recharge area” is defined as an area where the addition of water to an aquifer is by human activity, such as putting surface water into dug or constructed spreading basins or injecting water through wells.
5. “Central Valley Water Board” is defined as the California Regional Water Quality Control Board, Central Valley Region.
6. “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 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.
7. “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.*”
8. “Confined area” is defined as the area where cows are confined within the production area.
9. “Cropland” is defined as the land application area where dry or solid manure and/or process wastewater is recycled for the purpose of beneficially using the nutrient value of the manure and/or process wastewater for crop production.

10. "Degradation" is defined as any measurable adverse change in water quality.
11. "Discharge" is defined as the discharge or release of waste to land, surface water, or ground water.
12. "Discharger" is defined as the property owner and the operator of an existing milk cow dairy subject to Reissued Waste Discharge Requirements General Order R5-2007-0035-R.
13. "Existing Milk Cow Dairies" means all dairies that were operating as of 17 October 2005, filed a complete Report of Waste Discharge in response to the 2005 Report of Waste Discharge Request Letter, and have not expanded.
14. "Existing herd size" is defined as the maximum number of mature dairy cows reported in the Report of Waste Discharge filed in response to the 2005 Report of Waste Discharge Request Letter, plus or minus 15 percent of that reported number to account for the normal variation in herd sizes.
15. "Expansion" is defined as, but not limited to, any increase in the existing herd size (i.e., by more than 15 percent of the maximum number of mature dairy cows filed in response to the 2005 Report of Waste Discharge Request Letter) or an increase in the storage capacity of the retention ponds or acquisition of more acreage for reuse of nutrients from manure or process 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 Reissued Waste Discharge Requirements General Order R5-2007-0035-R so long as the modification or installation is sized to accommodate only the existing herd size.
16. "Facility" is defined as the property identified as such in Reissued Waste Discharge Requirements General Order R5-2007-0035-R.
17. "Field moisture capacity" is defined as "the upper limit of storable water in the soil once free drainage has occurred after irrigation or precipitation."
18. "Freeboard" is defined as the elevation difference between the process wastewater (liquid) level in a pond and the lowest point of the pond embankment before it can overflow.
19. "Incorporation into soil" is defined as the complete infiltration of process 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

20. "Irrigation return flow" is defined as surface and subsurface water that leaves a field following application of irrigation water.
21. "Land application area" is defined as land under control of the milk cow dairy owner or operator, whether it is owned, rented, or leased, to which manure or process wastewater from the production area is or may be applied for nutrient recycling.
22. "Manure" is defined as the fecal and urinary excretion of livestock and other commingled materials. Manure may include bedding, compost, and waste feed.
23. "Manured solids" is defined as manure that has a sufficient solids content such that it will stack with little or no seepage.
24. "Mature dairy cow" is defined as a dairy cow that has produced milk at any time during her life.
25. "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. 1971 to 2000) if such data is available.
26. "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.*"
27. "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.
28. "Nutrient recycling" is defined as the application of nutrients at agronomic rates for crop production.
29. "Off-property discharge" is defined as the discharge or release of waste beyond the boundaries of the property of the dairy's production area or the land application area or to water bodies that run through the production area or land application area.
30. "Open tile line intake structure" is defined as an air vent for a subsurface (tile) drain system.

31. "Order" is defined as the Waste Discharge Requirements General Order.
32. "Overflow" is defined as the intentional or unintentional diversion of flow from the collection, treatment, land application, and conveyance systems, including pumping facilities.
33. "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."*
34. "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."*
35. "Pond" is defined as retention ponds, storage ponds, settling ponds, or any structures used for the treatment, storage, disposal, and recycling of process wastewater. Ponds are differentiated from sumps, which are structures in a conveyance system used for the installation and operation of a pump.
36. "Process wastewater" is defined as water directly or indirectly used in the operation of a milk cow dairy for any or all of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other dairy 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, milk, or bedding.
37. "Production area" is defined as that part of a milk cow dairy that includes the , barns, milk houses, corrals, milk parlors, manure and feed storage areas, process water conveyances and any other area of the dairy facility that is not the land application area or the ponds.
38. "Regional Board" is defined as one of the nine California Regional Water Quality Control Boards.
39. "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.

40. "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.
41. "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.
42. "Sole-source aquifer" is defined as an aquifer that supplies 50 percent or more of the drinking water of an area.
43. "State" is defined as the State of California.
44. "State Water Board" is defined as the State Water Resources Control Board.
45. "Significant storm event" is defined as a precipitation event that results in continuous runoff of storm water for a minimum of one hour, or intermittent discharge of runoff for a minimum of three hours in a 12-hour period.
46. "Storm water" is defined as storm water runoff, snowmelt runoff, and surface runoff and drainage.
47. "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.
48. "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.
49. "Tailwater" is defined as the runoff of irrigation water from an irrigated field.
50. "25-year, 24-hour rainfall event" is defined as a precipitation event with a probable recurrence interval of once in twenty five years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or State rainfall probability information developed from this source.

51. "Waste" is defined as set forth in Water Code section 13050(d), and includes manure, leachate, process wastewater and any water, precipitation or rainfall runoff that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, or bedding.
52. "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.*"
53. "Wet season" is defined as the period of time between 1 October and 31 May of each year.