INFORMATION SHEET

Waste Discharge Requirements Order No. R5-2009-XXXX
Veldhuis North Dairy
Merced County

INTRODUCTION

The Veldhuis North Dairy has expanded the herd at the facility in Merced County, east of the community of Ballico. The maximum herd size (Holsteins) at the dairy is 7,189: 3,113 milking cows, 540 dry cows, 884 bred heifers, 442 heifers one year to breeding, 1,768 three-to-twelve month calves, and 442 baby calves. The dairy includes corrals, freestall barns, milking parlor, feed storage, six settling basins, and a wastewater storage lagoon. Wastewater is land-applied to 1,232 of the 1,615 acres for agricultural production. Solid manure is applied to cropland or used onsite as bedding.

In the summer of 2000, the site was being used as a feedlot and as irrigated pasture. Additionally, corn was being grown on a portion of the site. The facility had approximately 2,000 to 2,500 cattle. At that time, a wastewater lagoon had been previously constructed and a pad had been graded for planned dairy facilities. The Conditional Use Permit process was initiated and an Initial Study/Negative Declaration was prepared for the construction and operation of a 7,189 cow dairy. Due to changing county regulations, the project was put on hold until Merced County had adopted its Animal Confinement Ordinance.

In the winter of 2003, a freestall barn with corrals had replaced the feedlot. The facility now had approximately 500-600 dry cows, 1,000 heifers, and 400-500 beef cattle. In addition, 600 acres of irrigated pasture had been converted to oats and corn. This conversion of feedlot to dairy occurred per Merced County approval while the county completed the revisions to the Animal Confinement Ordinance. In September 2003 a draft Environmental Impact Report (EIR) was prepared for the project by Merced County Department of Planning and Community Development and was circulated in February 2003. The final EIR was certified in January 2004.

As part of its development of a General Order for existing milk cow dairies, the Central Valley Regional Board required all existing dairies to file a Report of Waste Discharge (ROWD) by 17 October 2005 to document conditions at each dairy as of that date, including the number of mature dairy cows. The ROWD also requested the maximum number of mature dairy cows at each dairy within the preceding 12 month period. The maximum number of mature dairy cows that can be at an existing dairy is limited to 115% of the larger of these two numbers for the dairy to qualify for coverage under the General Order. Dairies in existence as of October 2005 that want to increase beyond this number must get Individual Waste Discharge Requirements.

Although the Veldhuis North Dairy had received county approval for a herd size of 7,189 animals, including 3,113 milking cows, under the General Order the herd size of mature cows at the dairy was limited to the number given in the 2005 ROWD plus 15% or 2,691 mature cows. These Waste Discharge Requirements will permit the Veldhuis North Dairy to house the herd size allowed under the EIR approved by Merced County. The herd size had expanded beyond the number of mature cows allowed under the General Order as of December 2006.

A Report of Waste Discharge dated 28 August 2008 has been submitted for the expanded dairy. Additional information has been submitted to the Regional Board including a worksheet providing details on the expansion.

CURRENT CONDITIONS

The site of the dairy is zoned A-1 (General Agricultural) and A-2 (Exclusive Agricultural). It has been a dairy since June 2005. The property is generally flat lying, and is underlain soils comprised of the Hanford-Grangeville soil, Montpellier soil, Atwater soil, Rocklin soil, Whitney soil, and Delhi soil.

WASTE GENERATION AT FACILITY

Waste produced at the facility consists of wastewater from facility wash down operations and storm water containing manure, urine, milk products, spoiled feed material, bedding (litter), soil, and cleaning compounds. Solid wastes are also produced at the facility and primarily consist of manure with additional fractions of spoiled feed, bedding material and soil. An estimated 28,636 gallons per day (gpd) of clean water from the on-site water supply wells is used to wash down the holding pen, wash pen, and milking parlor floors, rinse the cows, and wash down miscellaneous dairy equipment. Over 120 days, the volume of barn wastewater generated will be 3,436,320 gallons. One hundred twenty days (December 1 through March 30) is the maximum amount of time that waste needs to be stored at the facility between land applications. The operation of the dairy generates approximately 1.45 cubic feet of manure per animal unit per day, where an animal unit equals 1,000 pounds of animal weight. Fifty percent of the manure is removed as solids through the settling basins, leaving a total of 5,897,110 gallons of manure and bedding generated over 120 days for a herd of 7,189 animals that is sent to the wastewater retention system. Rainfall onto impervious areas of the facility, onto the ponds, and onto corrals is estimated at 22,915,471 gallons over the December through March storage period, using average rainfall figures and including rainfall from one 25-year, 24-hour storm.

The total amount of wastewater requiring storage over the 120-day maximum storage period, after removing losses due to evaporation and adding one 25-year 24-hour storm, is 27,817,344 gallons.

WASTE MANAGEMENT AT FACILITY

Wastewater and manure generated at the facility drains to a concrete drain. The manure and wastewater is then conveyed to six settling basins. The wastewater from the settling basins is then pumped to the wastewater storage lagoon before it is used for irrigation of the land application area. Effluent is recycled from the wastewater storage lagoon to flush the lanes. Milk barn wash water is piped directly to the wastewater storage lagoon. Solid wastes are also produced at the facility and primarily consist of manure with additional fractions of spoiled feed, bedding material and soil.

The facility has six settling basins and one wastewater storage lagoon. The settling basins all have dimensions of approximately 1,000 feet long by 60 feet wide, and a side slope of 1.4:1. The wastewater storage lagoon is 2,270 feet long by 176 feet wide with 3:1 side slopes. The total storage capacity of the six settling basins and wastewater storage lagoon combined, allowing for one foot of freeboard in the settling basins and two feet of freeboard in the wastewater storage lagoon, is 6,853,333 cubic feet.

LAND APPLICATION OF WASTEWATER TO CROPS

Wastewater and solid manure is applied to land at agronomic rates to grow corn and oat silage in accordance with a certified Nutrient Management Plan.

All land application areas have tailwater recovery systems except for Field 8 which has center pivot sprinklers. This field is surrounded on three sides by fields that do have tailwater recovery systems, and the fourth side drains away from the neighboring field and towards the tailwater recovery systems. Therefore all runoff from Field 8 would be captured.

The Order requires that solid manure and wastewater samples be collected and analyzed, and the tons of solid manure and volume of wastewater applied to each field determined. This information will be used to refine the Nutrient Management Plan on an ongoing basis.

The dates and volume of each irrigation application (without wastewater) are recorded. These data are used to ensure that wastewater is not applied when the ground is at or above field moisture capacity, and to limit the flushing of nutrients below the root zone due to excessive application of irrigation water. In addition, samples of the irrigation water are tested to determine if there are nitrogen compounds present in the groundwater such that the Nutrient Management Plan should be amended to reflect nitrogen added from the irrigation water.

Soil monitoring and plant tissue monitoring are also required and the results used to further refine the Nutrient Management Plan.

GROUND WATER AND SURFACE WATER MONITORING PROVISIONS

There are seven existing agricultural supply wells and four domestic wells on the property. Two monitoring wells have been installed, and installation of two to three additional monitoring wells is required under this Order. The Discharger will install two monitoring wells initially, which will be used in conjunction with one of the existing monitoring wells to determine groundwater flow direction. Once the flow direction is determined, a third monitoring well will be installed, if needed, to monitor either the wastewater storage lagoons or downgradient of the cropland. These wells will monitor upgradient groundwater quality (unaffected by dairy operations) and groundwater downgradient of the location of corrals, land application areas, and the wastewater storage lagoons. The Order requires sampling of these wells. Regional ground water flow appears to be to the southwest; however, this was based only on limited data. Final determination of groundwater flow still needs to be determined. The depth to groundwater at the facility ranged from 92 to 141 feet in June 2008.

Sampling of the monitoring wells was conducted for the EIR, and again in October 2007 and June 2008. Groundwater quality at the facility appears to be good. No water quality goals have been exceeded for the sampled wells. The domestic and agricultural wells at the facility will be sampled semiannually for at least one year for electrical conductivity and nitrate-nitrogen, and at least once for general minerals, ammonia-nitrogen, total dissolved solids, and fecal coliform. For the first two years, the monitoring wells will be sampled quarterly for electrical conductivity, nitrate-nitrogen, and total dissolved solids, and semiannually for pH, ammonium-nitrogen, fecal coliform, phosphorous, and potassium. For the first two years, they will be sampled quarterly for general minerals, then annually thereafter. Prior to any pre-sample purging, the depth of groundwater shall be measured from a surveyed reference point (anticipated to be the top of each well vault) to the nearest 0.01 foot in each well.

Because all fields receiving solid manure or liquid wastewater have tailwater recovery systems or are surrounded by fields with tailwater recovery systems, it is not anticipated that there will be off-property discharges of waste, which would be in violation of the Water Code. It is expected that, if the Nutrient Management Plan and other conditions of the Order regarding waste application are followed, any discharges of storm water from fields receiving solid manure or wastewater should not contain significant quantities of waste constituents. To verify this, representative samples will be collected from a portion of the fields each year to determine if waste constituents are present. Storm water monitoring will be adjusted based on the results from these samples.

REPORTING REQUIREMENTS

By January 15 of each year, the Discharger will submit an Annual Report containing the information on facility operations outlined in the Monitoring and Reporting program and covering the period from 1 November through 31 October of the previous year. The initial annual report will cover the period through 31 October 2009.

By 30 June 2010, and annually thereafter, the Discharger will submit the results of groundwater monitoring and storm water monitoring conducted pursuant to the Monitoring and Reporting Program.

In the event of any noncompliance with the requirements of the Order that endangers human health or the environment, or any noncompliance with the prohibitions in the Order as listed in the Noncompliance Reporting provisions of the Monitoring and Reporting Program, the Discharger shall notify the Board within 24 hours of becoming aware of the occurrence. Information about the situation shall be collected and submitted in accordance with the Priority Reporting of Significant Events requirements in the Monitoring and Reporting Program.

APPLICABLE WATER QUALITY STANDARDS

The Central Valley Water Board has adopted a Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (4th ed.). This Basin Plan designates the beneficial uses of groundwater and surface waters of the Region, specifies water quality objectives to protect those uses, and includes implementation programs for achieving water quality objectives. The Basin Plan also includes plans and policies of the State Water Board incorporated by reference, including State Water Board Resolution No. 68-16 (*Statement of Policy with Respect to Maintaining High Quality Waters in California*), State Water Board Resolution 88-63 (*Sources of Drinking Water Policy*), and State Water Board Resolution No. 92-49 (*Policies and Procedures for Investigation and Cleanup or Abatement of Discharges Under Water Code Section 13304*).

Beneficial Uses of Surface Water and Groundwater

Pursuant to Chapter II of the Basin Plan, the beneficial uses of surface water may include: municipal and domestic supply; agricultural supply; agricultural stock watering; industrial process supply; industrial service supply; hydro-power generation; body contact water recreation; canoeing and rafting; other non-body contact water recreation; warm freshwater aquatic habitat; cold freshwater aquatic habitat; warm fish migration habitat; cold fish migration habitat; warm spawning habitat; cold spawning habitat; wildlife habitat; navigation; rare, threatened, and endangered species; groundwater recharge; freshwater replenishment; aquaculture; and preservation of biological habitats of special significance. The Basin Plan contains a Table that lists the surface water bodies

and the beneficial uses and where not listed, the Basin Plan designates beneficial uses based on the waters to which they are tributary or applicable state or federal requirements. These beneficial uses are protected in this Order by, among other requirements, the prohibition of a direct or indirect discharge of waste and/or storm water from the production area to surface waters, the prohibition of discharge of wastewater to surface waters from cropland, the prohibition of any discharge of storm water to surface water from the land application areas unless the land application area has been managed consistent with a certified Nutrient Management Plan, and the prohibition of discharge of waste from existing milk cow dairies to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plan or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations.

Chapter II of the Sacramento River and San Joaquin River Basin Plan states: "*Unless otherwise designated by the Regional Water Board, all groundwaters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply*." These beneficial uses are protected in this Order by, among other requirements, the specification that the discharge of waste at an existing milk cow dairy shall not cause a violation of water quality objectives or cause pollution or nuisance.

Water Quality Objectives

Pursuant to the California Water Code Section 13263(a), WDRs must implement the Basin Plans, which require consideration of the beneficial uses of water, water quality objectives reasonably required to protect the beneficial uses, other waste discharges, the need to prevent nuisance conditions in the disposal area, and the receiving water. The water quality objectives are implemented in WDRs consistent with the Basin Plan's *Policy for Application of Water Quality Objectives*. The Basin Plan requires that WDRs apply the most stringent objective for each constituent to ensure that discharges do not cause adverse affects to any beneficial use.

Water quality objectives are the limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area. Water quality objectives apply to all waters within a surface water or groundwater resource for which beneficial uses have been designated. Water quality objectives are listed separately for surface water and groundwater in Chapter III of the Basin Plan and are either numeric or narrative.

The primary waste constituents of concern due to discharges of waste from dairies are ammonia, nitrates, phosphorus, chloride, boron, salts, pathogens, and organic matter. The discharge of waste from dairies must not cause surface

water or groundwater to exceed the applicable water quality objectives for those constituents.

Water Quality Objectives and Federal Criteria for Surface Water[1]

Water quality objectives that apply to surface water include, but are not limited to, (1) the numeric objectives, including the bacteria objective, the chemical constituents objective (includes listed chemicals and state drinking water standards, i.e., maximum contaminant levels (MCLs) promulgated in Title 22 CCR Division 4, Chapter 15 Sections 64431 and 64444 that are applicable through the Basin Plan to waters designated as municipal and domestic supply), dissolved oxygen objectives, pH objectives, and the salinity objectives; and (2) the narrative objectives, including the biostimulatory substances objective, the chemical constituents objective, and the toxicity objective. The Basin Plan also contains numeric water quality objectives that apply to specifically identified water bodies, including for example, electrical conductivity objectives for the Delta.

Federal water quality criteria that apply to surface water are contained in federal regulations referred to as the California Toxics Rule and the National Toxics Rule. See 40 CFR Sections 131.36 and 131.38.

Water Quality Objectives for Groundwater

Water quality objectives that apply to groundwater include, but are not limited to, (1) numeric objectives, including the bacteria objective and the chemical constituents objective (includes state MCLs promulgated in Title 22 CCR Division 4, Chapter 15 Section 64431 and 64444 and are applicable through the Basin Plan to municipal and domestic supply), and (2) narrative objectives including the chemical constituents, taste and odor, and toxicity objectives.

Implementation of Water Quality Objectives

The Basin Plan includes an implementation program for water quality objectives called the *Policy for Application of Water Quality Objectives*, which applies to implementation of both numeric and narrative water qualtiy objectives. To evaluate compliance with narrative objectives, the Policy requires the Regional Board to consider, on a case-by-case basis, various factors and information, including direct evidence of beneficial use impacts (e.g., a fish kill), information submitted by the discharger and other interested parties (e.g., levels that constitute natural background or site-specific conditions, such as soil types), and "*relevant numerical criteria and guidelines developed and/or published by other agencies and organizations*", such as the State Water Resources Control Board,

[1] It is important to note that this Order prohibits the direct or indirect discharge of waste and/or storm water from the production area to surface waters, the discharge of wastewater to surface waters from cropland, and requires the monitoring of discharges of storm water to surface water from the land application areas where manure or process wastewater has been applied as well as implementation of a certified Nutrient Management Plan.

California Department of Health Services, Department of Fish and Game, and the United States Environmental Protection Agency (USEPA). The Policy requires the Regional Board to consider this information and determine what specific numerical limit is "relevant and appropriate" to the situation at hand, and, therefore should be used in determining compliance with the narrative objective.

Narrative Water Quality Objectives

Some of the considerations of relevant numerical criteria and guidelines developed or published by other agencies and organizations include:

Agriculture

The Basin Plan contains a narrative chemical constituents objective for both groundwater and surface water that states that "*[waters] shall not contain chemical constituents in concentrations that adversely affect beneficial uses.*" This objective applies to the protection of agricultural beneficial uses. Relevant numerical criteria and guidelines for agricultural uses of groundwater are included in publications from the National Academy of Sciences, the University of California Cooperative Extension, and the Food and Agricultural Organization of the United Nations. This information is summarized in a 1985 publication *Water Quality for Agriculture, Food and Agriculture Organization of the United Nations - Irrigation and Drainage Paper No. 29*, (hereafter U.N. Guidelines) and includes detailed information to evaluate the quality of irrigation water necessary to sustain various crops.

The major constituents used to assess the quality of water for beneficial uses of irrigated agriculture are salinity (expressed as total dissolved solids, or TDS), boron, chloride, and sodium. Salinity reduces crop growth by reducing the ability of plant roots to absorb water. Boron is an essential element in very low concentrations but can become toxic to plants when concentrations in water even slightly exceed the amount required for optimal growth. While boron sensitivity appears to affect a wide variety of crops, sodium and chloride toxicities are mostly limited to tree crops and woody perennials (e.g., citrus, stone-fruit, and vineyard). A predominance of sodium relative to other ions in irrigation water may also disperse soil aggregates, which in turn, affects virtually all crops by decreasing the permeability of the soil to water and air.

Nitrogen in the form of nitrate and ammonium can also affect some nitrogen sensitive crops such as sugar beets, grapes, apricots, citrus, avocado, and some grain crops. Production of nitrogen sensitive crops may be affected at nitrogen concentrations above 5 mg/L nitrate (as nitrogen) or ammonium-nitrogen.

The U.N. Guidelines conclude that salt tolerance of crops and yield reductions can vary depending on various factors, such as irrigation management, the crop being grown, and the site conditions. The U.N. Guidelines recommend that a site-specific assessment be conducted to determine if water quality above or below the U.N. Guidelines would provide protection of irrigated agricultural uses.

The U.N. Guidelines divide water quality characteristics as having "No Problem – Increasing Problems – Severe Problems" and show numerical criteria that protect a full range of crops and would likely be protective under all irrigated agricultural uses. The numerical criteria for agricultural irrigation use are:

Problem and Related Constituent	No Problem	Increasing Problems
Salinity of irrigation water (micromhos per centimeter (µmhos/cm))	< 700	700 – 3,000
Salinity of irrigation water (total dissolved solids (mg/L))	< 450	450 – 2,000
Specific Ion Toxicity		
From ROOT absorption		
Sodium (mg/L)	< 69	69 – 207
Chloride (mg/L)	< 142	142 – 355
Boron (mg/L)	< 0.7	0.7 – 3.0
From FOLIAR absorption		
Sodium (mg/L)	< 69	> 69
Chloride (mg/L)	< 106	> 106
Miscellaneous		
NH_4-N (mg/L) (for sensitive crops)	< 5	5 – 30
NO_3-N (mg/L) (for sensitive crops)	< 5	5 – 30
HCO_3 (mg/L) (only with overhead sprinklers)	< 90	90 – 520
pH	normal range =	6.5 – 8.4

In determining the concentrations of the constituents listed above that will not result in adverse affects on agricultural beneficial uses in a given area, multiple criteria can apply. While the most stringent concentration becomes the constraining criterion, it is not necessarily the concentration that is required to protect all crops typically grown in the area. The U.N. Guidelines reflect the highest tolerable level of quality necessary to sustain the most sensitive crops but those crops may or may not be grown in the area. An evaluation of the existing crops grown in an area and crops that could be grown in that area is necessary to determine what the most stringent water quality criteria are that will protect all beneficial uses of water in that area. The highest water quality that is reasonable must be maintained.

Animal Drinking Water

As shown in the U.N. Guidelines, water quality needed to protect dairy animal drinking water uses are less sensitive than irrigated agriculture for all constituents shown above.

Municipal and Domestic Supply

With respect to water quality needed to protect municipal and domestic supply, the Basin Plan contains the narrative taste or odor objective that state in summary that waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance, adversely affects any beneficial use, or impart undesirable tastes or odors in fish flesh or other edible products. Waste from a dairy contains organic nitrogen, a decomposition by-product of which is ammonia, a taste-producing substance that, if present in excessive concentrations, can adversely affect the beneficial use of groundwater for municipal and domestic supply. J.E. Amoore and E. Hautala have determined an odor threshold for ammonia-nitrogen of 1.5 mg/L (*Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution*, Journal of Applied Toxicology, Vol. 3, No. 6 (1983)). While this numeric level is a value that is to be met at the point of use (i.e., the tap, rather than the receiving water), the Basin Plans state that "[w]ater quality objectives apply to all waters within a surface water or ground water resource for which beneficial uses have been designated, rather than at an intake, wellhead or other point of consumption." In accordance with the *Policy on Application of Water Quality Objectives*, it is relevant, appropriate, and reasonable to use this numeric level of 1.5 mg/L ammonia-nitrogen to protect beneficial use of area groundwaters and surface waters for human consumption.

Aquatic Life

Ammonia is known to cause toxicity to aquatic organisms in surface waters. Waste from a dairy contains both ammonia and un-ionized ammonia, both of which can cause impact to aquatic life. The US EPA has established Ambient Water Quality Criteria for Ammonia for the protection of freshwater aquatic life. These criteria include an acute criterion (1-hour average) for total ammonia (including ionized and un-ionized ammonia) that is dependent on pH and fish species and a chronic criterion (30-day average) that is dependent on pH and temperature, and at temperatures less than 15 degrees centigrade (59° F) is also dependent on fish species. For freshwater aquatic life protection, the acute criterion for total ammonia-nitrogen ranges from 0.885 (at pH 9.0) to 32.6 (at pH 6.5) milligrams nitrogen per liter (mg N/L) when salmonids are present and from 1.32 (at pH 9.0) to 48.4 (at pH 6.5) mg N/L when salmonids are absent. The chronic criterion for total ammonia-nitrogen ranges from 0.179 (at pH 9.0) to 10.8 (at pH 6.5). These criteria are based on total (un-ionized plus ionized) ammonia.

The California Department of Fish and Game criteria to protect freshwater aquatic life is 0.02 mg/L un-ionized ammonia. The equilibrium between un-ionized and ionized ammonia is controlled by temperature and pH. The California Department of Fish and Game determines the concentration of un-ionized ammonia based on the known percentage of un-ionized ammonia in a concentration of total ammonia at a given temperature and pH.

Numeric Water Quality Objectives

Maximum Contaminant Levels (Drinking Water Standards)

The Basin Plan's incorporation of MCLs by reference is prospective to incorporate changes to MCLs as changes in Title 22 CCR take effect. Should a change occur to an MCL and that MCL thereby becomes the most or more stringent objective, implementation of the changed objective would be effected through reopening of this Order.

Water Quality Objectives for Bacteria

The majority of waste collected at a dairy is fecal matter or manure. This waste contains pathogenic bacteria and can impact water quality if not properly handled. The Basin Plan contains numeric water quality objectives for bacteria in surface waters and in groundwater. For surface water, the Basin Plan specifies that "*[i]n waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml."* For groundwater, the Basin Plan specifies that "*[i]n ground waters used for domestic or municipal supply the most probable number of coliform organisms over any seven-day period shall be less than 2.2/100 ml.*"

Receiving Water Limitations for Dairies

The numeric water quality objectives and numeric limits that are relevant and appropriate to implement narrative water quality objectives applicable to the primary waste constituents of concern in discharges of waste at dairy facilities that could affect groundwater and surface water are as follows: For groundwater, the most stringent limitations to implement narrative and numeric water quality objectives are for total coliform 2.2/100 milliliter (ml), for ammonia-nitrogen 1.5 mg/L, for boron 0.7 mg/L, for chloride 106 mg/L, for nitrate-nitrogen 5 mg/L, for EC 700 µmhos/cm, and for TDS 450 mg/L. For surface water, the most stringent limitations to implement narrative and numeric water quality objectives and criteria are for total coliform 2.2/100 ml, for chloride 106 mg/L, for nitrate-nitrogen 5 mg/L, for EC 700 umhos/cm, and for TDS 450 mg/L. For surface water, the appropriate limitation for ammonia is 0.02 mg/L un-ionized ammonia or a concentration of total ammonia determined by the pH and fish species, whichever is less. Less stringent limitations may apply to different areas but can only be determined through a site-specific assessment. The Discharger may propose the application of less stringent limitations for consideration in the Monitoring and Reporting Program. Dairy waste may include other waste constituents not mentioned here. This Order requires the discharge to comply with all water quality objectives and federal water quality critiera for surface waters applicable to the discharge.