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WASTE DISCHARGE REQUIREMENTS ORDER and MONITORING AND REPORTING PROGRAM R5-2020-0033

ORDER INFORMATION

Order Types:	Waste Discharge Requirements (WDRs) and Monitoring and Reporting Program (MRP)
Status:	Adopted
Program:	Non-15
Discharger:	Olson Meat Company, Inc.
Facility:	Olson Meat Company, Inc.
Address:	7305 Cutler Avenue, Orland CA 95963
County:	Glenn County
WDID:	5A11NC00059
Prior Order:	R5-2013-0066

I, Patrick Pulupa, Executive Officer, hereby certify that the following is a full, true, and correct copy of the orders adopted by the California Regional Water Quality Control Board, Central Valley Region, on 4 June 2020.

Patrick Pulupa
Digitally signed by Patrick Pulupa
Date: 2020.07.02 16:11:56 -07'00'

Patrick Pulupa,
Executive Officer

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GLOSSARY

Antidegradation Policy ... *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16

Basin Plan ..... Water Quality Control Plan for Sacramento and San Joaquin River Basins

bgs ..... Below Ground Surface

BOD ..... Biological Oxygen Demand

BPTC ..... Best Practicable Treatment and Control

CEQA ..... California Environmental Quality Act, Public Resources Code section 21000 et seq.

CEQA Guidelines ..... California Code of Regulations, Title 14, section 15000 et seq.

C.F.R. ..... Code of Federal Regulations

COC[s] ..... Constituent[s] of Concern

DO ..... Dissolved Oxygen

DTSC ..... California Department of Toxic Substances Control

DWR ..... California Department of Water Resources

EC ..... Electrical Conductivity

FDS ..... Fixed Dissolved Solids

FEMA ..... Federal Emergency Management Agency

Ft ..... Feet

gpd ..... Gallons per day

LAA ..... Land Application Area

lbs/ac/yr ..... Pounds per Acre per Year

µg/L ..... Micrograms per Liter

µmhos/cm ..... Micromhos per Centimeter

GLOSSARY

MG[D] ..... Million Gallons [per Day]

mg/L ..... Milligrams per Liter

MSL ..... Mean Sea Level

MRP ..... Monitoring and Reporting Program

MW ..... Monitoring Well

MCL ..... Maximum Contaminant Level per Title 22

ORP ..... Oxygen Reduction Potential

ND ..... Non-Detect

NM ..... Not Measured

ROWD ..... Report of Waste Discharge

RCRA ..... Resource Conservation and Recovery Act

SPRRs ..... Standard Provisions and Reporting Requirements

TDS ..... Total Dissolved Solids

Title 22 ..... California Code of Regulations, Title 22

Title 23 ..... California Code of Regulations, Title 23

Title 27 ..... California Code of Regulations, Title 27

TKN ..... Total Kjeldahl Nitrogen

Unified Guidance ..... *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (USEPA, 2009)

USEPA ..... United States Environmental Protection Agency

WDRs ..... Waste Discharge Requirements

WQO[s] ..... Water Quality Objective[s]

(Findings begin on next page)

FINDINGS

The California Regional Water Quality Control Board, Central Valley (Central Valley Water Board) hereby finds as follows:

Introduction

1. Olson Meat Company, Inc. (Discharger) is owned and operated by James and Darlene Olson. The Olson Meat Company slaughterhouse (Facility) is located approximately five miles northeast of Orland in Glenn County, Section 5, T22N, R2W, Mount Diablo Base and Meridian (MDB&M). The Facility's location is depicted on the Site Location Map in **Attachment A**.

2. The Facility is comprised of the following Glenn County Assessor Parcel Number (APN):

Table 1—Facility Parcels

APN	Landowner
037-050-004	Fred & Darlene Olson

3. As Facility's owner and operator, the Discharger is responsible for compliance with the Waste Discharge Requirements (WDRs) prescribed in this Order.

4. The following materials are attached to this Order and incorporated herein:

   a. Attachment A—Site Location Map

   b. Attachment B—Facility Map

   c. Attachment C—Process Flow Diagram

   d. Attachment D—REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND MONITORING WELL INSTALLATION REPORTS

   e. Standard Provisions and Reporting Requirements

   f. Information Sheet

5. Also attached to this **Order R5-2020-0033**, which establishes a Monitoring and Reporting Program (MRP) for discharges regulated under the WDRs prescribed herein. Compliance with the MRP and subsequent revisions thereto.

6. Any additional information set forth in the attached **Information Sheet** is also incorporated herein.

7. On 1 November 2017, the Discharger submitted a Report of Waste Discharge (ROWD) that describes expansion of an existing slaughterhouse and pork processing facility that generates process wastewater and residual solids that are discharged to land in Glenn County. The Discharger submitted additional information to support the ROWD on 28 February 2019 and 23 October 2019.

Background

8. WDRs Order R5-2013-0066, adopted by the Central Valley Water Board on 31 May 2013, prescribes requirements for the discharge. Order R5-2013-0066 allows monthly average wastewater flow of up to 11,000 gallons per day (gpd) from Facility operations. At the time of issuance, the Facility's water supply was not metered; flow limits were based on estimated flow rates. A totalizer meter was installed in June 2014 and the Discharger reported 14,000 gallons per day water usage. Since then the Discharger has exceeded the wastewater flow limits and expanded Facility operations. Order R5-2013-0066 is being updated to reflect changes at the Facility.

Existing Facility and Discharges

9. The Facility is a slaughterhouse and swine processing facility equipped with wastewater treatment and disposal ponds and a land application area. **Attachment B**, which is attached hereto and made a part of this Order by reference, depicts a plan view of the Facility and the land application areas. In 2016, approximately 20,560 gallons of process wastewater was generated by the Facility daily assuming operation six days a week. In 2019 the Facility generated approximately 29,500 gallons of wastewater daily, again assuming operation six days a week.

10. The wastewater treatment and disposal system consists of collection drains, concrete collection pits, a sloped screen separator, wastewater storage ponds, and associated flood irrigation piping and a land application area. **Attachment C** of this Order, which is attached hereto and made part of this Order by reference, depicts a process flow diagram of the pond treatment and land application system.

11. Swine are kept in holding pens for a limited time to provide a daily supply of animals for processing. The pens are a source of wastewater from drinking water spillage, washing of live swine, and manure cleanout which flows to the concrete pits. The swine are killed in a carbon dioxide chamber after which carcasses are rapidly bled out. The carcasses are placed in 3,500-gallon scald tanks, which are emptied daily. Skin, hair, organs and blood are collected and either sold, sent to a rendering plant, or disposed of at a Class III solid waste

disposal facility. The swine carcasses are given a final rinse prior to refrigeration. All industrial process water enters floor drains and flows to the concrete pits adjacent to the building.

12. Federal regulations require that the carcass processing areas be cleaned every eight hours to maintain sanitary conditions. During cleanup, equipment, walls and floors are rinsed and then scrubbed with detergents and sanitizing agents. Products used within the processing area are sodium carbonate, sodium chloride, and calcium hypochlorite granules.

13. The Facility operates six days a week and currently has 100 employees working various shifts.

14. The Facility's primary water source is the supply well located in the northwest corner of the property. A flow totalizer meter records the amount of water used by the Facility. Water from this well also supplies the onsite residence and the facility restrooms, showers and laundry. Domestic wastewater discharges are treated and discharged to three onsite septic tank-leach field systems, which are regulated by Glenn County Environmental Health Department. See Attachment B for a Facility Map.

15. Potassium chloride is added as a water softening agent for industrial activities.

16. Paved areas are sloped to route storm water to a roadside storm water ditch along the north property boundary. Likewise, roof gutters and downspouts direct storm water to the north roadside drainage.

17. The concrete pits have a combined storage capacity of 18,445 gallons. Since July 2018 wastewater collected in the concrete pits is pumped to a sloped screen separator to remove solid particles. The recovered wastewater drains back to the concrete pits and is pumped, as needed, to the pond treatment system. The solids are stockpiled on a concrete pad and removed by a third-party vendor, as needed.

18. The pond treatment system consists of eleven shallow ponds operating in series with gravity discharge. The 2010 ROWD reported pond system capacity to be 1.22 million gallons (MG) (3.75 acre-feet) with the potential to contain approximate 115 days of wastewater discharges in the pond system. The 2017 and 2019 ROWD submittals estimate pond storage capacity to be 0.974 MG (2.99 acre-feet). In the 2010 ROWD, the cumulative volume of the Treatment System was estimated to be 60 days of industrial wastewater discharges, assuming two feet of remaining freeboard in Pond 11. According to flow data presented in the 2019 annual report, the volume or residence time of the pond system is approximately 26 days.

19. Wastewater flows by gravity from one pond to the next, which allows organic degradation processes to occur. Wastewater treatment ponds 1 through 10 are earthen berm structures with a maximum depth of four feet. The shallow depth promotes aeration and allows the Discharger to clean sludge from the pond bottoms. Pond 11 is nine feet deep. Wastewater from Pond 11 is blended with irrigation water as needed and applied to 25 acres of grassland used for cattle grazing.

20. Because water quality data for Pond 1 are limited, Ponds 1 and 11 were sampled on 18 October 2019; results are summarized below and presented with minimum and maximum concentrations for Pond 11 in 2019.

Table 2—Effluent Concentrations, Pre- and Post-Treatment

Constituent	Units	Pond 1 Effluent	Pond 11 Effluent	Pond 11 2019 Min-Max
Average Daily Flow	gpd	NM[1]	14,467	11,370-18,600
Biological Oxygen Demand	mg/L	3,790	17	41-154
Electrical Conductivity	µmhos/ cm	4,050	3,780	1,420-2,250
Total Dissolved Solids	mg/L	1,240	955	578-1,050
Fixed Dissolved Solids	mg/L	740	710	447-804
Total Nitrogen	mg/L	615	379	75-386
Total Kjeldahl Nitrogen	mg/L	614	378	75-386
Ammonia as Nitrogen	mg/L	392	374	NM
Nitrate+Nitrite as Nitrogen	mg/L	0.43[2]	0.70[2]	0.03-10.9
Total Organic Carbon	mg/L	1,150	32.2	NM
Alkalinity as $CaCO_3$	mg/L	1,500	1,620	NM
Bicarbonate as $CaCO_3$	mg/L	1,500	1,620	NM
Chloride	mg/L	112	145	69-167

Table Note 1: NM=Not measured.

Table Note 2: Reported values are below laboratory reporting limits; values are estimated.

21. Because daily washdown operations vary considerably and the treatment system is subject to direct precipitation and evaporation effects, Pond 1 and Pond 11 concentration data do not represent true starting and ending conditions to determine treatment system effectiveness.

22. In March 2016, the Discharger began adding a bio-stimulant to Ponds 1 and 2 to increase organic degradation processes in the treatment system. From February to July 2016 Total Nitrogen and Total Kjeldahl Nitrogen (TKN) concentrations dropped by approximately 75 percent, but concentrations then rebounded to previous levels and occasionally higher concentrations, despite regular bio-stimulant additions every two to three days totaling between 96 and 120 pounds per month.

23. In February 2017, the Discharger added aeration in the form of bubblers in Ponds 2 through 5, to promote aerobic treatment processes in the pond system. WDRs Order R5-2013-0066 showed 94 percent reduction of Biological Oxygen Demand (BOD) concentrations in the pond system prior to aeration; in 2018 and 2019 the treatment system showed between 92 and 98 percent BOD reduction.

24. The Discharger land applies partially treated effluent from Pond 11 to the land application area (LAA). Installation of a solar field in January 2018 reduced the LAA from 30 acres to approximately 25 acres and from four irrigation zones to three.

25. Land-applied effluent from Pond 11 is metered and the effluent is mixed with groundwater from the irrigation well in summer months as needed to meet crop demands. The irrigation well is 420 feet deep and screened from 35 to 420 feet below ground surface (bgs). The irrigation well is equipped with a backflow prevention device but is not equipped with a flow meter due to the potential for increased backpressure and possible damage to the manual gearhead. Prior to a 2018 calibration study, the pumping rate was assumed to be 650 gallons per minute (gpm), but the 2018 study showed pumping rates are approximately 265 gpm. Irrigation well volumes reported prior to January 2019 are likely overestimates by almost 250 percent.

26. The pastureland is used to grow a Bermuda grass (about 80 percent), Rye grass (15 percent) and clover (5 percent) mix which naturally reseeds itself. The LAA is grazed by approximately 70 head of cows for feed/fodder. The herd is provided additional feed and the LAA is fenced.

27. According to 2010 ROWD data, the estimated annual salt load to the LAA from wastewater application was 522 pounds per acre per year (lbs/ac/yr), based on the Fixed Dissolved Solids (FDS) concentration of a grab sample from Pond 11. Using the average monthly FDS concentration for the 2018 monitoring period and the 25-acre LAA size, the estimated annual salt load to the LAA in 2018 was 1,390 pounds per acre (lbs/ac).

28. The 2010 ROWD estimated BOD and nitrogen loading rates for the 30-acre LAA to be 156 lbs/ac/yr for BOD and 285 lbs/ac/yr for Nitrogen. Nitrogen loading rates reported prior to 2017 did not account for irrigation well water as an additional nitrogen source. 2018 reporting did not account for the LAA size reduction. Adjusting for the reduced LAA acreage, 2018 loading rates were approximately 760 lbs/ac/yr for Nitrogen and 237 lbs/ac/yr for BOD. BOD loading rates typically are reported on a per day basis; in this case the BOD loading rate for 2018 was approximately 0.65 lbs/ac/day.

29. Published annual nitrogen uptake values for Bermuda grass range from 350 to 600 lbs/ac/yr; Rye grass nitrogen uptake ranges from 160 and 250 lbs/ac/yr and Sweet clover uptake is 155 lbs/ac/yr (Brown and Caldwell, 2007. Manual of Good Practice for Land Application of Food Processing/Rinse Water).

Site Specific Conditions

30. The Facility is approximately 200 feet above mean sea level (ft MSL). Surface topography is relatively flat, sloping slightly to the south. Surface water drains to agricultural drains which drain to the Glenn-Colusa Canal, which then drains to the Colusa Basin Drain.

31. The Federal Emergency Management Agency designates the location of the Facility and LAA as Flood Zone X, which indicates that the Facility and LAA are outside the 500-year floodplain with minimal risk of flooding.

32. According to data in the *1982 Technical Report NWS 34, Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States,* published by the United States Department of Commerce, National Oceanic and Atmospheric Administration, the Facility is in a Mediterranean climate characterized by dry summers and wet winters; the rainy season is typically from November through April. Average annual pan evaporation is 65.59 inches at Station 7291 Red Bluff 3 E, which is located approximately 25 miles north of the Facility.

33. According to the Western Regional Climate Center's online database the nearest precipitation monitoring station is Orland, Station 046056. The average annual precipitation in Orland is approximately 19.5 inches and the maximum annual precipitation for the period 1905 through 2018 is 48.35 inches.

34. Land use in the area is primarily agricultural. A dairy and pastureland border the Facility to the west and walnut orchards border it to the north, east and south. Other local agriculture includes alfalfa and various row crops.

35. According to the United States Department of Agriculture's Natural Resources Conservation web soil survey, soils underlying the industrial Facility and northern half of the LAA are classified as Arbuckle gravelly loam, which is well drained with low runoff. The south portion of the Facility which includes the pond

treatment system and LAA area is characterized by Kimball loam and Hillgate loam soils which are classified as poorly drained with high potential for surface runoff.

Groundwater Conditions

36. Past reports have identified three groundwater producing zones: a shallow zone aquifer which is generally unconfined and occurring at depths ranging from 5 to 40 feet bgs, a confined intermediate zone aquifer ranging from 80 to 140 ft bgs, and a confined deep zone aquifer ranging from 220 to 300 ft bgs.

37. According to the Department of Water Resources online Groundwater Information Center, regional groundwater beneath the Facility flows to the east-southeast with depths ranging seasonally from approximately 30 to 45 feet in spring to 65 feet in fall. Gradients range from approximately 0.002 to 0.005 feet per foot.

38. Two groundwater supply wells provide the Facility's water supply. The Supply Well provides water for the industrial facility and private residence located on the property. The irrigation well provides groundwater to supplement effluent from Pond 11 as needed to irrigate pastureland. Table 4 below summarizes annual monitoring data collected from the water supply and irrigation wells from 2013-2018:

Table 3—Average Source Water Concentrations 2017-2019

Constituent	Units	Supply Well	Irrigation Well	Count
Depth of screened interval	ft bgs	160-200	35-420	--
pH	Standard units	7.08	7.01	4
Electrical Conductivity	µmhos/cm	708	723	4
Total Dissolved Solids	mg/L	385	393	4
Total Nitrogen	mg/L	9.17	11.43	4
Nitrate +Nitrite as Nitrogen	mg/L	9.17	11.37	4

39. Three shallow groundwater monitoring wells, approximately 35 feet deep and screened from 22 to 35 ft bgs, are located near the treatment and disposal ponds in the southwest portion of the Facility. Depths to shallow groundwater range seasonally from 12 to 30 feet bgs and shallow groundwater flows toward the northeast. Based on these data, the groundwater gradient is relatively flat, ranging from 0.004 to 0.011 feet per foot. However, wells MW-1 and MW-3 are

located near the pond system and their water levels may reflect local groundwater mounding beneath the pond system.

Table 4— Average Shallow Groundwater Concentrations 2018-2019

Constituent	Units	MW-1	MW-2	MW-3	Count	WQOs[1]
pH	standard units	6.63	6.85	6.62	8	6.5-8.5[2]
Electrical Conductivity	µmhos/cm	977	1,072	1,010	8	900[3]
Total Dissolved Solids	mg/L	563	607	593	8	500[3]
Total Nitrogen	mg/L	22.9	27.9	20.2	8	--
Total Kjeldahl Nitrogen	mg/L	3.43[4]	5.36[4]	0.19[4]	8	--
Nitrate+Nitrite as Nitrogen	mg/L	19.5	21.9	20.0	8	10[5]

Table Note 1: WQOs=Water Quality Objectives.

Table Note 2: Basin Plan requirement.

Table Note 3: Secondary Maximum Contaminant Level (MCL).

Table Note 4: Note that non-detected TKN is calculated as half the detection limit concentration.

Table Note 5: Primary MCL.

40. Generally, TKN is not detected in groundwater because wastewater treatment and soil adsorption processes result in nitrification of ammonia, which means ammonia-nitrogen undergoes full conversion to nitrate-nitrogen before reaching groundwater. The presence of TKN in shallow groundwater suggests there may be groundwater quality degradation. Degradation of shallow groundwater quality may be due to the downward migration of untreated effluent from site activities or it may be a regional condition.

Legal Authorities

41. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

> The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge…, with relation to the conditions existing in the disposal area or receiving

> waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

42. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.

43. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)

44. This Order and its associated MRP are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

> [T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste … shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

45. The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

Basin Plan Implementation

46. Pursuant to Water Code section 13263, subdivision (a), WDRs must "implement any relevant water quality control plans…, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

47. This Order implements the Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised May 2018* (Basin Plan), which designates beneficial uses for surface

water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)

48. Local drainage is to the Glenn-Colusa Canal, which discharges to the Colusa Basin Drain, the beneficial uses of which (per the Basin Plan) include: irrigation and stock watering (AGR); contact, canoeing and rafting (REC-1); warm freshwater habitat (WARM); potential cold freshwater habitat (COLD); warm migration of aquatic organisms (MIGR); warm spawning (SPWN); and wildlife habitat (WILD).

49. The Facility is in the Red Bluff Hydrologic Area 504.20. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).

50. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.

51. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.

52. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

53. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.

54. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.

Salt and Nitrate Control Programs Reopener

55. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the

Central Valley at its 31 May 2018 Board Meeting. The Basin Plan Amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03).

a. For nitrate, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers could comply with the new nitrate program either individually or collectively with other dischargers. For the Nitrate Control Program, the Facility falls within Groundwater Sub-Basin 5-20.22 (Colusa Basin Hydrologic Unit; Orland Hydrologic Sub Area). Notices to Comply will be sent out in groups, based on the priority designation for the basin.

b. For salinity, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. Dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17January 2020). Upon receipt of the Notice to Comply, the Discharger will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting).

As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met.

56. This Order may be amended or modified to incorporate any newly applicable requirements.

Special Considerations for High Strength Waste

57. For the purpose of this Order, high strength waste is defined as wastewater that contains concentrations of readily degradable organic matter that exceed typical concentrations for domestic sewage. Such wastes contain greater than 500 mg/L BOD and often contain commensurately high levels of TKN, which is a measure of organic nitrogen and ammonia nitrogen and/or FDS. When FDS concentrations in effluent exceed 300 mg/L above the source water Total Dissolved Solids (TDS) concentrations, the wastewater is considered high strength saline wastewater. Typical high strength wastewaters include septage, some food processing wastes, winery wastes, and rendering plant wastes.

58. Excessive application of high organic strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and degradation of underlying groundwater with nitrogen species and metals, as discussed below. Such groundwater degradation can be prevented or minimized through implementation of best management practices which include planting crops to take up plant nutrients and maximizing oxidation of BOD to prevent nuisance conditions.

59. Unless groundwater is very shallow, groundwater degradation with nitrogen species such as ammonia and nitrate can be prevented by minimizing percolation below the root zone of the crops and ensuring that the total nitrogen load does not exceed crop needs over the course of a typical year. Where there is sufficient unsaturated soil in the vadose zone, excess nitrogen can be mineralized and denitrified by soil microorganisms.

60. With regard to BOD, excessive application can deplete oxygen in the vadose zone and lead to anoxic conditions. At the ground surface, this can result in nuisance odors and fly-breeding. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic matter can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or acidic wastewater. If the reducing conditions do not reverse as the percolate travels down through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse the process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.

Compliance with *Antidegradation Policy*

61. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (*Antidegradation Policy*) prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger’s best practicable treatment or control (BPTC).

62. Shallow groundwater quality monitoring wells were installed in December 2011. Given the availability of pre-1968[1] water quality information, compliance with the

[1] The *Antidegradation Polic*y was adopted by the State Water Board in 1968.

Antidegradation Policy will be determined based on pre-1968 water quality (Antidegradation Baseline).

63. Constituents of concern (COCs) that have the potential to degrade groundwater include electrical conductivity (EC), TDS, BOD, total nitrogen, nitrate as nitrogen, and chloride, as discussed below and in Table 5.

Table 5—Constituents with Potential for Degradation, Average Concentrations for 2019

Constituent	Pond 11 Effluent	Background Groundwater[1]	Supply Well Groundwater[2]	Shallow Groundwater	Potential WQOs
Biological Oxygen Demand	85	NM	NM	NM	
Electrical Conductivity	1724	673	711	1093	900[1]
Total Dissolved Solids	843	389	390	618	500[1]
Total Nitrogen	358	NM	9.84	24.5	--
Total Kjeldahl Nitrogen	354	NM	<0.2	3.23	--
Nitrate as Nitrogen	1.7	1.42	9.84	19.8	10[3]
Chloride	126	27	NM	NM	250[4]

Table Notes 1: Background water quality reported for DWR Well 22N02W04C002M 9/21/2006, located 0.7 mile east-northeast of the Facility (See DWR Water Data Library, Well 22N02W04C002M); (http://wdl.water.ca.gov/waterdatalibrary/waterquality/station_county/select_station.cfm?URLStation=22N02W04C002M&source=map);

Table Note 2: Supply Well sampled annually. Reported data for 26 December 2019;

Table Note 3: Primary MCL;

Table Note 4: Secondary MCL.

a. **Electrical Conductivity (EC).** All monitoring wells currently show exceedances of the recommended Secondary MCL for EC. At the time of well installation in December 2011, EC concentrations for all monitoring wells were below 800 µmhos/cm; concentrations for all three wells show an increasing trend.

b. **Total Dissolved Solids (TDS).** All shallow groundwater monitoring wells show WQO exceedances of the Secondary MCL for TDS but did not at the time of well installation. All three shallow wells show increasing concentration trends since December 2011. Increasing trends suggest additional salinity control measures may be required. Discharges to unlined ponds pose a greater threat to groundwater quality than discharges to the LAAs because of the continuous head. This Order includes a Provision to conduct a Background Groundwater Quality Study and a follow up evaluation of best practicable treatment and control (BPTC) measures.

c. **Nitrate as Nitrogen.** Nitrate as Nitrogen concentrations in all three monitoring wells exceeded the Primary MCL at the time of installation; concentration trends show increases from 12-17 mg/L in December 2011 to 22-26 mg/L in 2019. For nutrients such as nitrate, the potential for groundwater degradation depends on wastewater quality; crop uptake, and the ability of the vadose zone below the LAAs to support nitrification and denitrification to convert the nitrogen to nitrogen gas before it reaches the water table. Most of the nitrogen in the process wastewater is present as TKN (ammonia nitrogen plus organic nitrogen) whereas only trace detections of nitrate nitrogen are detected. In 2019 the effluent TKN nitrogen concentration average was 358 mg/L. TKN is typically not detected in groundwater because ammonia nitrogen converts to nitrogen and organic nitrogen is immobilized in the soil column. However, 2019 data shows increasing TKN concentrations in groundwater, suggesting potential nutrient leaching to shallow groundwater. This Order includes monitoring effluent for ammonia nitrogen concentrations to better characterize nitrogen species.

64. This Order prescribes Flow Limitations (Section B), Effluent Limitations (Section C) and Provisions (Section H) to ensure that Facility discharges will not threaten the present and anticipated beneficial uses of surface water and groundwater (see Findings 48 and 49), or result in water quality less than applicable WQOs.

65. This Order will not result in water quality less than established WQOs, with the following considerations:

a. With respect to EC, TDS, nitrate as nitrogen and total nitrogen, the existing discharge may result in attributable degradation that could cause or contribute to an exceedance of one or more applicable WQOs. More information is required to determine background groundwater quality. For this reason, this Order includes Provisions (Section G) requiring the Discharger to implement additional wastewater treatment or control measures to comply with applicable WQOs in a timeframe as short as practicable.

66. The Discharger proposes to implement the following Best Practicable Treatment and Control (BPTC) measures:

    a. Continued removal of residual solids from Pond 1, 2, and 3 as part of routine pond maintenance measures to improve storage capacity and treatment processes.

    b. Reconfigure pond system for geometric and volumetric increase as well as increased control over storage and treatment system.

    c. Evaluate effectiveness of new pond configuration in concert with aeration system for treatment of wastewater COCs.

    d. Develop a blood collection and removal system in the processing facility to remove blood from the waste stream and reduce BOD levels.

67. The Discharger's implementation of the above-listed BPTC measures will reduce the extent of water quality degradation resulting from the Facility's continued operation.

68. The Discharger's operation provides approximately 100 full-time jobs, provides food services waste mechanisms for the greater community, and recycles waste products. The economic prosperity of valley communities and their associated industry is of maximum benefit to the people of the State. Accordingly, to the extent that any degradation occurs as the result of the Facility's continued operation, such degradation is consistent with the maximum interest of the people of the State of California.

69. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's *Antidegradation Policy*.

Compliance with CEQA

70. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301 (CEQA Guidelines). The discharges authorized under this Order are substantially within parameters established under prior WDRs, particularly with respect to character and volume of discharges.

71. To the extent that the construction of any new basins, ponds and/or surface impoundments are authorized under this Order, such features involve minor alterations to land, which are exempt from CEQA procedural requirements pursuant to California Code of Regulations, title 14, section 15304 (CEQA Guidelines).

72. This Order is further exempt from CEQA procedural requirements insofar as it is adopted for protection of the environment and does not authorize construction activities or the relaxation of standards allowing for environmental degradation, in accordance with California Code of Regulations, title 14, section 15308 (CEQA Guidelines).

73. This Order is further exempt from CEQA procedural requirements because it can be seen with certainty that there is no possibility that the discharges and activities authorized herein will have a significant effect on the environment. (See Cal. Code Regs., tit. 14, § 15061, subd. (b)(3) [CEQA Guidelines].)

Other Regulatory Considerations

74. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt or establish a policy, regulation or grant criterion, (see § 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet MCLs for drinking water, which are designed to protect human health and ensure that water is safe for domestic use.

75. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-C, where:

    a. Threat Category "2" reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances; and

    b. Complexity Category "C" reflects any discharger for which WDRs have been prescribed per Water Code section 13263, and not included in Category A or Category B.

76. This Order, which prescribes WDRs for discharges of wastewater, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (Cal. Code Regs., tit. 27, § 20090, subd. (b).)

77. Statistical data analysis methods outlined in the US EPA's 2009 *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (*Unified Guidance*) are appropriate for determining compliance with Groundwater Limitations of this Order. Other methods may be appropriate as well.

78. This Order does not cover storm water and other discharges that are subject to the Clean Water Act's National Pollution Discharge Elimination System (NPDES). With respect to stormwater, the Facility is currently covered under the statewide

General Permit for Storm Water Discharges Associated with Industrial Activities, State Water Board Order 2014-0057-DWQ, NPDES General Permit CAS000001 (Industrial General Permit).

79. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.

Scope of Order

80. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.

81. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new ROWD per Water Code section 13260.

82. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.

83. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as “Discharger,” subject only to the discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

84. All of the above information, as well as the information contained in the attached **Information Sheet** (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.

85. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board’s intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (Wat. Code, § 13167.5.)

86. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

87. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267: that WDRs Order R5-2013-0066 is rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

A. Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses, including irrigation ditches outside of control of the Discharger, is prohibited.

2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.

3. Discharge of waste classified as 'designated', as defined in CWC Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.

4. Treatment system bypass around, or overflow from, the wastewater treatment ponds is prohibited, except as allowed by Standard Provision E.2 of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements.

5. Discharge of wastewater to any location other than the emergency overflow storage ponds or the LAAs described in the Findings is prohibited.

6. Discharge of toxic substances into any wastewater treatment system or LAA such that biological treatment mechanisms are disrupted is prohibited.

7. Discharge of industrial wastewater to septic systems is prohibited.

8. Discharge of domestic waste to anything other than the onsite septic system or regularly serviced portable toilets is prohibited.

9. Discharge of anything other than domestic wastewater to the septic tank and leach field system is prohibited.

B. Flow Limitations

1. Effective immediately, influent and effluent flows to the wastewater treatment system shall not exceed the following limits:

Table 6—Effluent Flow Limits

Flow Measurement	Flow Limit
Monthly Average Flow to Pond 1	538,000 gallons
Monthly Average Flow to LAA	450,000 gallons

Table Notes: These average monthly flow rates correspond to total annual flow limit to Pond 1 of 6.45 MG and a total annual flow limit from Pond 11 to the LAA of 5.40 MG. Water balance flow rates are based on 2016 annual data.

2. 2019 ROWD submittals suggested the pond and land disposal system could support an annual effluent rate from Pond 11 to the LAA of 6.45 MG but did not provide water balance calculations to support this 20 percent increase. The water balance information presented assumes a constant monthly flow to Pond 1 of 538,000 gallons (1.65 acre-feet) and constant monthly discharges to the LAA of 450,000 gallons (1.38 acre-feet). Under these proposed limits, the water balance shows the pond system will have insufficient freeboard under 100-year return annual precipitation conditions for approximately five months in the late winter-spring season. This item is addressed in Provision H.1.a.

C. Effluent and Mass Loading Limitations

1. Effluent discharged from the concrete pits to the storage pond or from Pond 11 to the LAA shall not exceed the following limits:

Table 7—Effluent Limits

Constituent	Units	Flow-Weighted Annual Average Limit[1]
Chloride to Pond 1	milligrams per Liter	175
FDS to Pond 1	milligrams per Liter	750[2]

Table Note 1: Flow-weighted average shall be based on actual reported monthly flow rates and monthly effluent concentration data from Pond 1.

Table Note 2: Limits based on risk categories presented in Manual of Good Practice for Land Application of Food Processing/Rinse Water, Brown and Caldwell, 2007.

Table 8-Loading Limits

Constituent		Units	Annual Average Limit
BOD Mass Loading		pounds/acre/day	50
Total Nitrogen Mass Loading		pounds/acre/year	400 or crop demand, whichever is higher

Table Notes: Alternative means for determining nitrogen uptake may be demonstrated with site-specific data or alternate assessment upon approval by the Executive Officer.

Compliance with the above requirements shall be determined as specified in the Monitoring and Reporting Program

D. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.

2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.

3. The discharge shall remain within the permitted wastewater treatment ponds and land application areas at all times.

4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.

5. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

6. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or discharged at an intensity that creates or threatens to create nuisance conditions.

7. As a means of ensuring compliance with Discharge Specification D.6, the dissolved oxygen (DO) content in the upper one foot of Pond 11 shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if the DO in Pond 11 is below 1.0 mg/L for three consecutive weeks, the Discharger shall report the findings to the Regional Water Board in accordance with General Reporting Requirement B.1 of the Standard Provisions and Reporting Requirements. The written

notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.

8. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in Ponds 1 through 10 is controlled by gravity discharge locations and shall be at least one foot. The operating freeboard in Pond 11 shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain a permanent staff gauge in Pond 11. The gauge shall have calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

9. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

10. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications D.8 and D.9.

11. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:

    a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.

    b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.

    c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

    d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

12. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall

be designed and constructed under the supervision of a California Registered Civil Engineer.

13. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.

14. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years beginning in 2020 and shall periodically remove sludge as necessary to maintain adequate storage capacity. Specifically, if the estimated volume of sludge in the reservoir exceeds five percent of the permitted reservoir capacity, the Discharger shall complete sludge cleanout within 12 months after the date of the estimate.

E. Groundwater Limitations

Release of waste constituents from any portion of the facility shall not cause groundwater to:

1. Contain any of the specified constituents in a concentration statistically greater than the maximum allowable concentration tabulated below:

    a. Exceed a total coliform organism level of 2.2 MPN/100 mL over any seven-day period.

    b. Contain constituents in concentrations statistically greater than background water quality or that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, whichever is greater.

    c. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

The monitoring wells to which these requirements apply are specified in the Monitoring and Reporting Program. Compliance with these limitations shall be determined annually based on an intra-well analysis of data using approved statistical methods.

F. Land Application Area Specifications

1. Crops or other vegetation (which may include pasture grasses, native grasses and trees, and/or ornamental landscaping) shall be grown in the LAAs.

2. Land application of wastewater shall be managed to minimize erosion and prevent offsite discharges.

3. The LAAs shall be managed to prevent breeding of mosquitoes or other vectors.

4. LAAs shall be designed, maintained, and operated to comply with the following setback requirements:

Table 9—LAA Required Setbacks

Setback Definition	Minimum Irrigation Setback (feet)
Edge of LAA to property boundary	10
Edge of LAA to manmade or natural surface water drainage course	25
Edge of LAA to domestic water supply well	100

5. Irrigation of the LAAs shall occur only when appropriately trained personnel are on duty.

6. LAAs shall be inspected periodically to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop recycled water use immediately and implement corrective actions to ensure compliance with this Order.

7. Any irrigation runoff (tailwater) shall be confined to the LAAs or returned to the pond treatment system and shall not enter any surface water drainage course or storm water drainage system.

8. Discharge to the LAAs shall not be performed during rainfall or when the ground is saturated.

9. All storm water runoff from the use areas shall be captured and recycled for irrigation or allowed to percolate within the use areas.

G. Solids Disposal Specifications

Sludge, as used in this document, means the solid, semisolid, and liquid organic matter removed from wastewater treatment, settling, and storage vessels or ponds. Solid waste refers to solid inorganic matter removed by screens and soil sediments.

1. Sludge and solid waste shall be removed from screens, sumps, and ponds, as needed to ensure optimal operation and adequate storage capacity.

2. Any handling and storage of sludge, solid waste, and residual solids shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.

3. Sludge and residual solids may be discharged to land in accordance with the Land Application Area Specifications of this Order.

4. If removed from the site, sludge, solid waste, and residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid waste discharge requirements issued by a Regional Water Board) will satisfy this specification.

5. Any proposed change in solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

H. Other Provisions

1. The following reports shall be submitted pursuant to CWC section 13267 and shall be prepared as described in Provision H.6:

   a. **By 1 September 2020,** the Discharger shall submit documentation verifying installation and calibration of flow meters that provide continuous, direct flow measurement of wastewater to Pond 1 and both wastewater and supplemental water applied to each LAA. Alternative means of flow measurement of supplemental water for irrigation such as hourly pumping rate calculations may be acceptable, provided that they are calibrated at least every five years. The Discharger shall also provide a water balance that demonstrates that the wastewater ponds have sufficient storage and disposal capacity to contain the average monthly wastewater flow of 538,000 gallons (20,650 gpd, assuming operation six days per week) under average annual rainfall conditions and total annual precipitation for the 100-year return period. The water balance should include the following:

      i. A minimum of two feet of freeboard in Pond 11 at all times (unless a registered civil engineer determines that a lower freeboard level will not cause overtopping or berm failure);

ii. As-built pond geometry;

iii. Historical local evapotranspiration, pan evaporation, and lake evaporation data (monthly average values);

iv. Local precipitation data including the mean monthly precipitation and the 100-year return period annual total distributed monthly in accordance with the mean monthly precipitation pattern;

v. Proposed land application area hydraulic loading rates distributed monthly in accordance with crop evapotranspiration rates and allowable discharge season.

vi. Projected long-term percolation rates (including consideration of percolation from unlined ponds and the effects of solids plugging).

vii. If land applying wastewater in wet weather conditions, capture of tailwater.

If the updated water balance shows a storage and/or disposal capacity deficit, the Discharger shall propose specific structural and/or operational improvements that will ensure compliance with Discharge Specification E.10 will be completed no later than 1 August 2021.

b. By **1 February 2021**, the Discharger shall submit a Workplan for Land Application Assessment to evaluate hydraulic and nutrient loading with the goal of minimizing nutrient and salt leaching which can degrade shallow groundwater quality. The December 2011 Natural Resources Conservation Service Code 590 for Nutrient Management provides guidelines for nutrient management planning based on current soil, manure, irrigation water, and plant tissue test results. Link to Natural Resource Conservation Service Guidance for Nutrient Management (https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/ecoscience/mnm/?cid=stelprdb1044741). This guidance document may provide useful information for Workplan development. The Land Application Assessment shall be completed within nine months of workplan approval by the Central Valley Water Board.

c. **By 1 June 2021**, the Discharger shall submit a Solids Management Plan detailing a routine pond maintenance plan and the removal and/or final disposal of solid materials from the Facility. The Plan shall account for accumulated sludge removal from ponds and all other materials resulting from site activities and include a Solids Management Log to be used for long-term record-keeping. The Plan shall also describe measures to be used to control runoff or percolate

from the sludge if it is to be dried onsite and specify the removal from the site prior to the onset of the rainy season (1 October).

d. **By 1 November 2021**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan* that proposes the installation of additional monitoring wells to ensure adequate monitoring upgradient and downgradient of all unlined ponds as well as the LAA. The workplan shall be prepared in accordance with, and include the items listed in, the first section of Attachment D: “Requirements for Monitoring Well Installation Workplans and Monitoring Well Installation Reports”, which is attached hereto and made part of this Order by reference. The groundwater monitoring wells shall be designed to yield samples representative of the uppermost portion of the first aquifer underlying the ponds and LAA.

e. By three months following the approval of the above workplan, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* for any new groundwater monitoring wells constructed to comply with Provision H.1.d. The report shall be prepared in accordance with, and including the items listed in, the second section of Attachment D: "Monitoring Well Workplan and Monitoring Well Installation Report Guidance", which is attached hereto and made part of this Order by reference. The report shall describe the installation and development of all new monitoring wells and explain any deviation from the approved workplan.

f. Once two years of quarterly groundwater monitoring have been completed for the new monitoring wells, the Discharger shall submit a *Background Groundwater Quality Study*. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of monitoring data and calculation of the concentration in background monitoring wells. Determination of background quality shall be made using the methods described in Title 27, section 20415, subdivision (e)(10), and shall be based on data from at least eight consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/ constituent, the report shall compare the calculated background concentration with the interim numeric limitations set forth in Groundwater Limitation (Section E). Where background concentrations are statistically greater than the interim limitations specified in Groundwater Limitation (Section E), the report shall recommend final groundwater limitations which comply with Resolution No. 68-16 for the waste constituents listed therein. The groundwater limitations may subsequently be revised through a permit amendment.

If the *Background Groundwater Quality Study* shows that the discharge of waste is causing groundwater to contain waste constituents (other than electrical conductivity, total dissolved solids, sodium and chloride) in concentrations statistically greater than background water quality then, by three months following the Background Groundwater Quality Study, the Discharger shall submit a *BPTC Evaluation Workplan* that sets forth the scope and schedule for a systematic and comprehensive technical evaluation of each component of the facility's waste treatment and disposal system to determine best practicable treatment and control. The workplan shall contain a preliminary evaluation of each component of the process wastewater generation, collection, treatment and disposal system and propose a time schedule for completing the comprehensive technical evaluation. The schedule to complete the evaluation shall be as short as practicable and shall not exceed one year after receipt of comments on the workplan.

2. At least 180 days prior to any sludge removal and disposal, the Discharger shall submit a Sludge Cleanout Plan. The plan shall include a detailed plan for sludge removal, drying, and disposal. The plan shall specifically describe the phasing of the project, measures to be used to control runoff or percolate from the sludge as it is drying, and a schedule that shows how all dried sludge will be land applied to the LAAs or removed from the site prior to the onset of the rainy season (1 October).

3. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by 31 January.

4. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional’s signature and stamp.

5. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.

6. The Discharger shall comply with Monitoring and Reporting Program **R5-2020-0033** which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

7. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

9. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

10. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.

11. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material changes or proposed change in the character, location, or volume of the discharge.

12. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."

13. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

14. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.

15. In the event of any change in control or ownership of the facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

16. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the CWC. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

17. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

18. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below), and will be provided upon request.

Guidelines for filing petitions with the Central Valley Water Board
(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

Attachments:

Attachment A—Site Location Map
Attachment B—Facility Map
Attachment C—Process Flow Diagram
Attachment D—Requirements for Monitoring Well Installation Workplans And Monitoring Well Installation Reports
Monitoring and Reporting Order (and attachments thereto)
Information Sheet

ATTACHMENT A—SITE LOCATION MAP

(See next page)

ORDER R5-2020-0033 **ATTACHMENT A – SITE LOCATION MAP**

DRAWING REFERENCE: GOOGLE EARTH MAP DATA: © 2019 GOOGLE NO SCALE	SITE LOCATION MAP OLSON MEAT COMPANY INC. GLENN COUNTY

ATTACHMENT B—FACILITY MAP

(See next page)

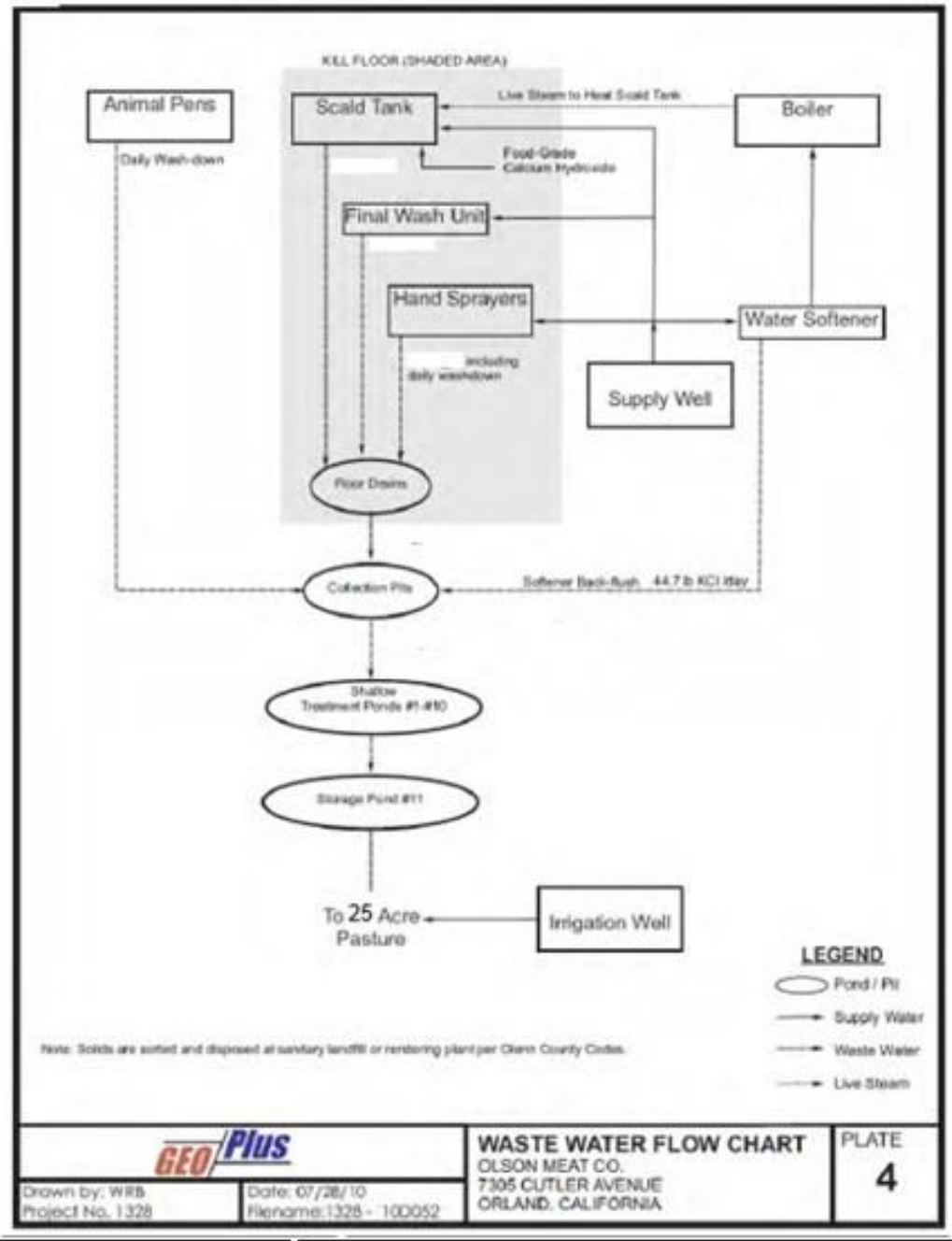
ORDER R5-2020-0033 **ATTACHMENT B - FACILITY MAP**

DRAWING REFERENCE: GOOGLE EARTH MAP DATA: © 2019 GOOGLE NO SCALE	FACILITY MAP OLSON MEAT COMPANY INC. GLENN COUNTY

ATTACHMENT C—PROCESS FLOW DIAGRAM

(See next page)

ORDER R5-2020-0033 **ATTACHMENT C – PROCESS FLOW DIAGRAM**



DRAWING REFERENCE: GOOGLE EARTH MAP DATA: © 2019 GOOGLE NO SCALE	PROCESS FLOW DIAGRAM OLSON MEAT COMPANY INC. GLENN COUNTY

ATTACHMENT D—Requirements for Monitoring Well Installation Workplans And Monitoring Well Installation Reports

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2, below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 - Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details
- Borehole diameter
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)
- Anticipated depth of well, length of well casing, and length and position of perforated interval

- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water

E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):

- Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
- Datum for survey measurements
- List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)
- Schedule for Completion of Work

Appendix: Groundwater Sampling and Analysis Plan (SAP)

The Groundwater SAP shall be included as an appendix to the workplan and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

- Provide a detailed written description of standard operating procedures for the following:
- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives

- Sampling
- General sampling techniques
- Record keeping during sampling (include copies of record keeping logs to be used)
- QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

Purpose of the well installation project

Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells

Number of monitoring wells installed and copies of County Well Construction Permits

Topographic map showing facility location, roads, surface water bodies

Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

On-site supervision of drilling and well installation activities

Drilling contractor and driller’s name

Description of drilling equipment and techniques

Equipment decontamination procedures

Soil sampling intervals and logging methods

Well boring log

Well boring number and date drilled

Borehole diameter and total depth

Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)

Depth to first encountered groundwater and stabilized groundwater depth

Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

Well construction diagram, including:

Monitoring well number and date constructed

Casing and screen material, diameter, and centralizer spacing (if needed)

Length of well casing, and length and position of perforated interval

Thickness, position and composition of surface seal, sanitary seal, and sand pack

Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

Date(s) and method of development

How well development completion was determined

Volume of water purged from well and method of development water disposal

Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

Identify the coordinate system and datum for survey measurements

Describe the measuring points (i.e. ground surface, top of casing, etc.)

Present the well survey report data in a table

Include the Registered Engineer or Licensed Surveyor’s report and field notes in appendix.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING ORDER R5-2020-0033
MONITORING AND REPORTING PROGRAM
FOR
STEVE OLSON
OLSON MEAT COMPANY, INC.
GLENN COUNTY

Separately issued pursuant to Water Code section 13267, subdivision (b)(1), this Order establishes a Monitoring and Reporting Program (MRP) for waste discharges regulated under Waste Discharge Requirements Order R5-2020-0033 (WDRs Order). Each of the Findings set forth in the WDRs Order, including those pertaining to the need for submission of reports, are hereby incorporated as part of this MRP Order.

This MRP is issued pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts, or the Executive Officer issues, a revised MRP.

This MRP Order may be separately revised by the Executive Officer, in accordance with their delegated authority under Water Code section 13223.

A. Monitoring Requirements

1. Flow Monitoring

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

2. Monitoring and Sampling Locations

Samples shall be obtained at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to sampling locations prior to implementation of the change.

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order:

Table MRP 1—Monitoring Locations

Monitoring Location Name	Monitoring Location Description
SUPPLY WELL	Location where a representative sample of water supply entering the Facility can be obtained
IRR WELL	Location where a representative sample of irrigation well water applied to the LAA can be obtained
POND 1	Location where a representative sample of wastewater entering the pond treatment system can be obtained
POND 11	Pond 11 discharge where a representative sample of treated wastewater can be obtained

3. Sampling and Sample Analysis

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater.

The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as those used to measure pH, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

a. The operator is trained in proper use and maintenance of the field test instruments;

b. The instruments are calibrated at the frequency recommended by the manufacturer;

c. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and

d. Field calibration reports are submitted as described in the “Reporting” section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

a. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (EPA);

b. Test Methods for Evaluating Solid Waste (EPA);

c. Methods for Chemical Analysis of Water and Wastes (EPA);

d. Methods for Determination of Inorganic Substances in Environmental Samples (EPA);

e. Standard Methods for the Examination of Water and Wastewater (APHA/AWWA/WEF); and

f. Soil, Plant and Water Reference Methods for the Western Region (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the California Department of Public Health's Environmental Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency. This monitoring program shall remain in effect unless and until a revised MRP is issued.

B. Specific Monitoring Requirements

1. General Pond Monitoring

All ponds used for treatment, storage, or disposal of wastewater shall be monitored as specified below. Influent flow rates shall be monitored for all waste streams collectively into the pond treatment system at Pond 1. Effluent flow rate is measured from Pond 11 discharges for land application.

Weekly freeboard measurements shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 foot.

Weekly visual observations for berm condition shall include evidence of saturation or seepage through the berm, need for vegetation removal, evidence of animal activity such as burrowing or erosion.

Weekly observations for the presence of odors or insect activity causing any type of nuisance condition.

Dissolved oxygen monitoring applies to any pond containing more than two feet of standing water. Best results are obtained from field analysis.

Pond depth shall be recorded annually in late summer (August-September) when pond volumes are lowest. Vertical height shall be measured to the lowest point of the berm.

Table MRP 2—General Pond Monitoring

Constituent	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Influent Flow[1]	gallons per day	Meter reading	Continuous	Monthly
Effluent Flow	gallons per day	Meter reading	Continuous	Monthly
Freeboard[2]	0.1 feet	Measurement	Weekly	Monthly
Dissolved oxygen[2]	milligrams per liter	Grab	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly

Table Note 1: Daily flow may be based on Supply Well meter reading minus average discharges to onsite leach fields.

Table Note 2: Report freeboard and dissolved oxygen for Pond 11 only.

2. Pond Treatment System Monitoring

Pond system influent samples for the pond system shall be collected from Pond 1 and effluent samples shall be collected from Pond 11. Pond sample monitoring shall be performed for the following parameters:

Table MRP 3—Pond Monitoring

Constituent	Units	Sample Type	Monitoring Frequency	Reporting Frequency
pH	Standard Units	Grab	Monthly	Quarterly
Oxidation-Reduction Potential	millivolts	Grab	Monthly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Quarterly
Total Dissolved Solids	mg/L	Grab	Monthly	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Monthly	Quarterly
Biological Oxygen Demand[1]	mg/L	Grab	Quarterly	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
Ammonia-Nitrogen	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Alkalinity	mg/L	Grab	Quarterly	Quarterly
Salinity species[2]	mg/L	Grab	Quarterly	Quarterly
Priority Pollutants[3]	micrograms per Liter	Grab	Once	Once

Table Note 1: 5-day, 20 degrees Celsius Biological Oxygen Demand.

Table Note 2: Includes chloride, iron, manganese, sodium, and sulfate.

Table Note 3: Priority pollutants as presented in Appendix A to U.S. EPA Code of Federal Regulations, title 40, Part 423, link to EPA Priority Pollutant list (https://www.epa.gov/sites/production/files/2015-09/documents/priority-pollutant-list-epa.pdf). Note that asbestos, dioxins and furans are not required.

3. Land Application Area Monitoring

a. Daily Pre-Application Inspections

The Discharger shall inspect the land application areas at least once daily prior to and during irrigation events and observations from those inspections shall be documented

for inclusion in the monthly monitoring reports. The following items shall be documented for each check or field to be irrigated on that day:

1. Evidence of erosion;
2. Containment berm conditions
3. Condition of each standpipe sand flow control valve (if applicable)
4. Proper use of valves'
5. Soil saturation
6. Ponding
7. Tailwater ditches and potential runoff to off-site areas;
8. Potential and actual discharge to surface water;
9. Odors that have the potential to be objectionable at or beyond the property boundary; and
10. Insects.

A copy of entries made in the log during each month shall be submitted as part of the Quarterly Monitoring Report. If no irrigation with wastewater takes place during a given month, then the monitoring report shall so state.

b. Routine Monitoring

The Discharger shall perform the following routine monitoring and loading calculations during all months when land application occurs and shall present the data in the Monthly and Annual Monitoring Reports.

Table MRP 4—LAA Monitoring

Constituent	Units	Sample Type	Sampling Frequency	Reporting Frequency
Precipitation[1]	inches	Observation	Daily	Monthly
Irrigation fields and checks receiving wastewater	--	Observation	Daily	Monthly
Hydraulic loading rate Wastewater Supplemental Water	 inch/acre inch/acre	 Calculated[2] Calculated[2]	 Monthly Monthly	 Monthly Monthly
BOD loading rate Daily Average Total Annual	lbs/ ac/day lbs/ ac/day	Calculated[3]	Quarterly	Annually
Wastewater nitrogen loading rate	lbs/ac/yr	Calculated[3]	Quarterly	Annually
Total nitrogen loading rate, including other sources (supplemental water, manure, etc.)	lbs/ac/ month	Calculated[3]	Annually	Annually

Table Note 1: Data obtained from the nearest National Weather Service rain gauge is acceptable.

Table Note 2: Rate shall be calculated using monthly flow rates.

Table Note 3: Loading rates shall be calculated using monthly volumes, application area, and monthly effluent quality data as described in the Reporting Requirements for Annual Reports. Nitrogen loading from supplemental water shall be calculated using annual nitrogen concentration data.

4. Supply Water and Irrigation Well Water Monitoring

Supply water and supplemental irrigation water monitoring shall include at least the parameters listed in the table below. As an alternative, the Discharger may submit a copy of the most current Department of Public Health Consumer Confidence Report or analytical results submitted to the County Environmental Health Department or California Department of Public Health, as applicable.

Table MRP 5—Supply Water and Supplemental Water Monitoring

Constituent	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow	gallons per day	Meter reading	Monthly	Monthly
pH	Standard Units	Grab	Annually	Annually
Electrical Conductivity	µmhos/cm	Grab	Annually	Annually
Total Dissolved Solids	mg/L	Grab	Annually	Annually
Chloride	mg/L	Grab	Annually	Annually
Total Kjeldahl Nitrogen	mg/L	Grab	Annually	Annually
Ammonia-Nitrogen	mg/L	Grab	Annually	Annually
Nitrate-Nitrogen	mg/L	Grab	Annually	Annually

5. Groundwater Monitoring Requirements

The Discharger shall maintain the groundwater monitoring well network which currently consists of three wells, MW-1, MW-2, and MW-3. If a groundwater monitoring well is dry for more than four consecutive sampling events or is damaged, the Discharger shall submit a work plan and proposed time schedule to replace the well. The well shall be replaced following approval of the work plan.

Prior to construction of any groundwater monitoring wells, the Discharger shall submit plans and specifications for approval. Once installed, all new wells shall be added to the groundwater monitoring network.

Prior to purging or sampling, the groundwater depth shall be measured in each well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction.

Low or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Otherwise, each monitoring well shall be purged of at least 3 to 5 casing volumes until pH, electrical conductivity and turbidity have stabilized prior to sampling. Groundwater monitoring for all monitoring wells shall include, at a minimum, the following:

Table MRP 6—Groundwater Monitoring

Constituent	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Depth to Groundwater	0.01 feet	Measurement	Quarterly	Quarterly
Groundwater Elevation[1]	0.01 feet	Calculated	Quarterly	Quarterly
Gradient Magnitude	feet/feet	Calculated	Quarterly	Quarterly
Gradient Direction	degrees	Calculated	Quarterly	Quarterly
pH	standard unit	Grab	Quarterly	Quarterly
Oxidation-Reduction Potential	millivolts	Grab	Quarterly	Quarterly
Dissolved Oxygen	mg/L	Grab	Quarterly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Ammonia as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Other Salinity Species[2]	mg/L	Grab	Quarterly	Quarterly
Total Coliform Organisms	most probable number per 100 milliliters	Grab	Quarterly	Quarterly

Table Note 1: Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation.

Table Note 2: Includes chloride, iron, manganese, sodium and sulfate. Samples for iron and manganese shall be filtered with a 0.45-micron filter prior to sample preservation.

6. Ponds Sludge and Solids Disposal Monitoring

The Discharger shall keep records regarding the quantity of pond sludge removed from all ponds; any sampling and analytical data; the quantity of sludge stored on site; and the quantity removed for disposal. The records shall also indicate that steps taken to reduce odor and other nuisance conditions. Records shall be stored onsite and available for review during inspections.

If sludge or other solids is transported off-site for disposal, then the Discharge shall submit records identifying the hauling company, the amount of sludge and/or solids transported, the date removed from the facility, the location of disposal, and copies of all analytical data required by the entity accepting the waste. All records shall be submitted as part of the Annual Monitoring Report.

C. Reporting Requirements

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyredding@waterboards.ca.gov.

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
ECM Mailroom
364 Knollcrest Drive, Suite 205
Redding, California 96002

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Attention: Compliance/Enforcement Section
Olson Meat Company, Inc.
Glenn County
WDID: 5A11NC00059
Place ID: 756304

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of the WDRs and this MRP during the reporting period and

actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. Pursuant to Section B.3 of the Standard Provisions and General Reporting Requirements, the transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer's knowledge.

Reporting shall include a map view illustration of flow monitoring locations and sample collection locations.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report. Electronic spreadsheet files should be made available to the Central Valley Water Board upon request.

Laboratory analysis reports shall be attached to the monitoring reports; all laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

In the future, the State Water Board or Central Valley Regional Water Board may require electronic submittal of monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html) or similar system. Electronic submittal to CIWQS, when implemented, will meet the requirements of our Paperless Office System. Until then, electronic data files should be available upon request.

Quarterly Monitoring Reports

Weekly, monthly, and quarterly monitoring data shall be reported in the quarterly monitoring report. Quarterly reports shall be submitted to the Central Valley Water Board on the 1st day of the second month following sampling (i.e., the First Quarter report is due by 1 April). At a minimum, the reports shall include:

1. A narrative description of all preparatory, monitoring, sampling and analytical testing activities for the monitoring. The narrative shall be sufficiently detailed to verify compliance with WDRs, this MRP, and the Standard Provisions and Reporting Requirements.

2. Tabulated general pond monitoring data, including average daily influent and effluent flow calculated on a monthly basis and comparison with the Flow Limitations of the WDRs.

3. Tabulated water quality data for pond system influent and effluent and comparison with Effluent Limitations of the WDRs.

4. Tabulated land application observations, volumes of effluent and supplemental irrigation water applied, and relevant calculations to track loading and compare with hydraulic loading limitations of the WDRs.

5. Tabulated of Groundwater Monitoring including:

    a. Field logs for each well documenting depth to groundwater; method of purging; parameters measured before, during, and after purging; sample preparation (e.g., filtering); and sample preservation.

    b. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the quarter.

    c. Calculation of the groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of measurement.

    d. Summary data tables of historical and current water table elevations and analytical results. Attach a copy of laboratory analytical report(s) for groundwater monitoring.

    e. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., NGVD).

6. Results of any Solids Disposal Monitoring completed during the quarter either as logged, or in tabulated format.

Annual Reports

The Fourth Quarterly Report will serve as an Annual Report and be submitted by 1 February of each year. The Annual Report shall present a summary of all monitoring data obtained during the previous calendar year, and shall include the following:

1. Total annual influent flow to the pond system, total annual effluent flow to the LAA, the calculated average monthly influent and effluent flows, and comparison to the Flow Limitations of the WDRs.

2. The total hydraulic loading rate for wastewater and supplemental water applied to the LAA for the calendar year (measured in inches/year) and comparison to measured evapotranspiration (ET) values for the calendar year.

3. Summary tables for influent and effluent testing results and time-series graphs for each constituent monitored. Evaluation of compliance with Effluent Limitations of WDRs.

4. Summary tables for LAA activities including, dates of fertilizer application, wastewater volumes applied to LAAs, supplemental irrigation water volumes applied, precipitation, and runoff control operations.

5. Summary tables and time-series graphs for groundwater monitoring data. Discussion of concentration trends and evaluation of groundwater quality beneath the site. This shall include a determination of compliance with Groundwater Limitations of WDRs.

6. Average daily BOD loading rates applied to the LAA for the periods of wastewater application throughout the calendar year and comparison to the Mass Loading Limitations of the WDRs. Compliance with the BOD requirements may be determined as specified below:

$$M = \frac{8.345\ (CV)}{A\ T}$$

Where: M = Mass of BOD applied to an LAA in lb/ac/day
C = Concentration of BOD in mg/L
V = Volume of wastewater applied to the LAA in million gallons per day

A = Area of the LAA in acres
T = Time in days when wastewater application occurred
8.345 = unit conversion factor (1,000,000 gallons times 3.7854 liters per gallon divided by 453,600 milligrams per pound)

7. The total nitrogen loading rate applied to the LAA for the calendar year with supporting data and calculations and comparison to crop nitrogen demand for the crops actually grown. The mass of total nitrogen applied to the LAA on an annual basis shall be calculated using the following formula:

$$M = \frac{\sum (8.345 \times (C_i V_i) + M_x)}{A}$$

Where: M = Mass of nitrogen applied to LAA in lb/ac/yr
∑ = Sum of all 12 months for the calendar year
8.345 = unit conversion factor (1,000,000 gallons times 3.7854 liters per gallon divided by 453,600 milligrams per pound)
C_i = Concentration of total nitrogen for month *i* in mg/L based on average of the three most recent monitoring results
V_i = Volume of wastewater applied to LAAs during calendar month *i* in million gallons
M_x = Nitrogen mass from other sources (e.g. irrigation well water to be calculated using total volume applied for the calendar year and average of the three most recent monitoring results, livestock manure, fertilizer applied) in pounds
A = Area of the LAA in acres

8. The flow-weighted annual average FDS concentration of the wastewater discharged to the LAAs and comparison to the Effluent Limitations of the WDRs. The flow weighted annual average FDS concentration shall be calculated using the following formula:

$$C_a = \frac{\sum (C_{pi} \times (V_{pi} \times 3.785))}{\sum (V_{pi} \times 3.785)}$$

Where: C_a = Flow-weighted annual average FDS concentration in mg/L
∑ = Sum of all 12 months for the calendar year
C_{pi} = Monthly process wastewater FDS concentration for calendar month in mg/L

V_{pi} = Volume of process wastewater applied to LAAs during calendar month in gallons
3.785 = Unit conversion (Liters to gallons)

9. An evaluation of the groundwater quality beneath the site and determination of compliance of the WDRs based on statistical analysis for each constituent monitored for each compliance well in accordance with the approved Groundwater Limitations Compliance Assessment Plan. Include all calculations and data input/analysis tables derived from use of statistical software, as applicable.

10. A narrative description of solids removal and disposal practices which includes total volumes for the calendar year.

Other Standard Reporting Requirements

An evaluation of the performance of the pond treatment system and land application disposal system, including discussion of capacity issues, infiltration and inflow rates, nuisance conditions, and a forecast of the flows anticipated in the next year, as described in Standard Provision E.4

1. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

2. Monitoring equipment maintenance and calibration records, as described in Standard Provision C.4.

3. A statement of when the wastewater treatment system Operation and Maintenance Manual was last reviewed for adequacy and a description of any changes made during the year.

4. A discussion of any data gaps and potential deficiencies or redundancies in the monitoring system or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall clearly indicate the submitting Discharger's name, facility or site name, county, monitoring period, and type of report (i.e., monthly, quarterly, or annual). The letter shall include a discussion of any requirement violations during the reporting period and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. Pursuant to the Standard Provisions and Reporting Requirements, the transmittal letter shall contain a statement by the

Discharger or its authorized agent, under penalty of perjury, that to the best of the signer's knowledge, the report is true, accurate, and complete.

The Discharger shall implement the above monitoring program as of the date of this Order.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions are available on the Internet (at the address below) and will be provided upon request.

Guidelines for filing petitions with the Central Valley Water Board
(http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

(Information Sheet begins on next page)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2020-0033
WASTE DISCHARGER REQUIREMENTS
FOR
STEVE OLSON
OLSON MEAT COMPANY, INC.
GLENN COUNTY

INFORMATION SHEET

Background

Olson Meat Company, Inc. (Discharger), a California corporation, operates a slaughterhouse and swine processing facility located at 7305 Cutler Avenue, Orland, Glenn County. This site is located on the south side of Cutler Avenue (County Road 4), north of Capay Avenue (County Road 7), on the west side of 5th Avenue (County Road S), east of 6th Avenue (County Road 202), within the area of Capay, in the unincorporated area of Glenn County, California, Latitude 39° 47' 17" and Longitude -122° 6' 24", Foster Island 7.5-minute Quadrangle, T22N, R2W.

Facility Operations

Swine are kept onsite for as short a time as possible in holding pens to provide a daily supply of animals for processing. The swine are killed in a carbon dioxide chamber and carcasses are bled out. Next carcasses are placed in a 3,500-gallon scald tank which is emptied daily and given a final rinse. Skin, hair, organs, and blood are collected and either sold, sent to a rendering facility, or disposed of at a licensed solid waste disposal facility.

All industrial process water enters floor drains and flows to concrete pits adjacent to the building. Federal regulations require carcass processing areas to be cleaned every eight hours to maintain sanitary conditions. Equipment walls and floors are rinsed and scrubbed with detergents and sanitizing agents, which include sodium carbonate, sodium chloride and calcium hypochlorite granules.

The facility operates six days a week and currently employs 100 people working in several shifts. The Facility's water source is the supply well, which is equipped with a flow meter and treated with potassium chloride as a water softening agent. Water from the supply well also serves an onsite residence and facility restrooms, showers and laundry. Domestic wastewater discharges to three onsite septic-leach field systems regulated by Glenn County Department of Environmental Health.

Wastewater collected in the concrete pits is pumped manually to a series of eleven shallow groundwater ponds, connected by gravity flow. Ponds 1 through 10 are roughly

four feet deep and Pond 11 is seven feet deep. Ponds 2 through 5 are equipped with bubblers to promote mixing and aeration. Partially treated wastewater in Pond 11 is pumped to a land application area, divided into three zones totaling approximately 25 acres. Water from an irrigation well is blended to meet crop needs for the Bermuda grass, Rye grass and clover mixed pasture. Between 70 and 100 cattle graze the area and provided supplemental feed as needed.

Solids Disposal

Skin, hair, organs and blood are collected and either sold, sent to a rendering plant, or disposed of at a Class III solid waste disposal facility. A sloped screen separator was installed in March 2017 to remove wastewater solids from the concrete pits and stockpile them on a concrete pad for removal by a third-party vendor.

Groundwater Conditions

Regional groundwater in the area is encountered between 15 and 40 feet below ground surface (bgs) in spring and between 55 and 65 feet bgs in fall; groundwater flows eastward towards the Sacramento River, according to Department of Water Resources, Groundwater Information Center Interactive Map Application (Spring 2013-Fall 2018).

The groundwater-monitoring network at the Facility consists of three shallow monitoring wells. Wells MW-1 and MW-3 are located within 25 feet of pond berms where groundwater levels may be affected by local groundwater mounding from pond infiltration. Well MW-2 is located east of Pond 3 and north of Pond 9, adjacent to the LAA Zone C. Prior to monitoring well installation the Central Valley Water Board generally recommended one upgradient (background) well and at least two downgradient wells, however the Discharger did not consult the Central Valley Water Board regarding the well placement in December 2011. Available data do not provide adequate background groundwater quality characterization, as is required in this Order. Therefore, this Order requires installation of additional groundwater monitoring wells.

Groundwater data from all three monitoring wells exceeded the Primary MCL for nitrate-nitrogen (10 mg/L) at the time of installation. Nitrate concentrations in December 2011 ranged from 14 to 16 mg/L and concentration trends have increased steadily; 2019 concentrations range from 22 to 25 mg/L. Also of concern is Total Kjeldahl Nitrogen (TKN); TKN was detected in all three wells in 2011 at 0.25 mg/L and has occasionally exceeded 10 mg/L in wells MW-1 and MW-2. Normally TKN is not detected in groundwater because naturally occurring nitrification and denitrification processes convert nitrogen to nitrate-nitrogen, which is commonly detected and persistent in groundwater.

Concentration trends for nitrate as nitrogen, electrical conductivity and total dissolved solids show increasing concentrations; exceedances of Water Quality Objectives for

Total Dissolved Solids (TDS) concentrations in groundwater have been observed in all three wells since December 2016.

Groundwater quality may be impacted by general largescale agricultural practices in the region. Determining background shallow groundwater quality and whether the Discharger is contributing to increasing salt and nitrogen concentrations in groundwater are concerns which require further studies which are addressed in this Order.

Compliance History

The Discharger commenced operation at the Facility in 2002 for pork production. At that time, the Discharger installed an eleven-pond wastewater settling /treatment system and usage of wastewater for irrigation. In 2009 the Discharger contacted Glenn County Planning and Public Works regarding a facility expansion. Glenn County required the Discharger to expand the onsite leach field, designed for 10 employees but serving 35, and to contact the U.S. Department of Agriculture, the Division of Drinking Water and the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to assess needs for additional regulatory coverage.

On 2 August 2010 the Discharger submitted a Report of Waste Discharge (ROWD) and on 31 May 2013 the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2013-0066. Based on estimated wastewater application rates of 10,630 gallons per day and 258 operating days per year, the WDRs limited annual wastewater application to land at 2.8 million gallons (MG). The first flow meter was installed in October 2013; and showed an average wastewater discharge rate of 17,673 gallons per day over a six-week period to the land application area.

On 28 December 2015 the Central Valley Water Board issued a Notice of Violation for effluent flow exceedances, nitrogen loading exceedances, pond berm maintenance requirements and failure to submit technical reports required in the WDRs. On 16 February 2016 the Discharger responded to the flow exceedance problem by proposing a Report of Waste Discharge application for updated WDRs in May 2016.

On 6 December 2016 the Discharger submitted an Amended Soil Investigation and Crop Management Plan (Amended SICMP) and an Amended Wastewater Nutrient Management Plan (Amended WMNP) to satisfy requirements of the WDRs. Both the Amended SICMP and the Amended WNMP reported that nitrogen loading to the land application area exceeds crop uptake, but also claim that grazing cattle take up additional nitrogen to compensate for all nitrogen loading. These reports rely on textbook values; this Order includes a Provision for a Land Application Assessment to evaluate nutrient management planning for the land application area.

On 23 December 2016 the Discharger submitted a Salinity Evaluation and Minimization Plan (SEMP) which provided control measures and estimated costs for options to reduce the salinity of the discharge. The measures identified were removing blood from

the wastewater stream, removing sludge from the ponds and lining all the ponds, improving treatment with reverse osmosis, and trucking wastewater to an offsite disposal facility. The SEMP reported the removal of blood as the most economically viable alternative and proposed implementation following the issuance of new WDRs.

In November 2017 the Discharger submitted a Solids Handling and Management Plan and a Compliance Schedule for Groundwater Limitations and Title 27 Exemption Analysis. These reports were required by current WDRs; the Discharger included proposals for the following potential improvements: blood removal from the waste stream, continued solids removal prior to pond system disposal, removing sludge from the pond system, aerating ponds, and increasing pond storage volume.

The Discharger submitted a Report of Waste Discharge (ROWD) dated 10 May 2017. The Central Valley Water Board reviewed that report and requested additional information. A revised report was received 1 November 2017 and additional information was reported on 1 February 2019 and 23 October 2019. According to 2017 and 2019 ROWD submittals, the Discharger operates 313 days a year, with an annual discharge of up to 9.4 million gallons to the pond system, 5.8 million gallons of which are applied to land as irrigation. Over irrigation of the land application area has historically resulted in unauthorized offsite discharges to storm water drainages.

Treatment Technology and Control

The Discharger provides treatment and control of the discharge that incorporates:

1. Minimizing animal holding time and feeding prior to slaughter.
2. Catchment of approximately 60 percent of the blood for resale.
3. Solids removal from wastewater in the concrete collection pits using a sloped screen separator prior to discharge to Pond 1.
4. Processing of wastewater through an eleven-pond treatment system. Ponds 2 through 5 are equipped with bubblers to provide additional aeration and mixing to facilitate aerobic treatment processes.
5. Flood irrigating with partially treated effluent from Pond 11.
6. Routing roof gutter drainage and parking lot runoff to roadside drainages.
7. Blending of wastewater with irrigation water as needed to meet the agronomic requirements for crop growth.

Title 27

The Facility's discharge of wastewater is conditionally exempt from the requirements of Title 27 of the California Code of Regulations. This Order requires the Discharger to continue to confirm that the discharge complies with applicable water quality objectives.

Order Terms and Conditions

Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions

The Order prohibits discharge to surface waters and water drainage courses. The Order sets an annual flow limit to the pond treatment system at 6.4 MG and annual discharges to the land application area at 5.4 MG. These annual limits are supported by a water balance in the November 2017 ROWD. This Order requests an updated water balance to provide an updated pond system design capacity and determine if improvements are necessary to meet the Facility's desired operational needs.

This Order permits land application of wastewater to unsaturated soils but does not allow wastewater discharges from the LAA. The Order prescribes that the application of waste constituents to the land application area shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management system. This Order requires a Land Application Assessment to evaluate hydraulic and nutrient loading with respect to irrigation and crop uptake needs.

Monitoring Requirements

Water Code section 13267 authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. The monitoring requirements are being imposed to ensure that the Discharger complied with the permit conditions. Water Code section 13268 authorizes the assessment of administrative civil liability for failing to submit monitoring reports required pursuant to Water Code section 13267.

The Order includes wastewater monitoring requirements, supply water monitoring, irrigation supply monitoring, land application area monitoring, and solids monitoring.

Salt and Nitrate Control Regulatory Program

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and

also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). Upon receipt of the Notice to Comply, Olson Meat Company Inc. will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. For the Nitrate Control Program, when the Notices to Comply will be sent out depends on the groundwater basin in which they are located. The CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs regionwide, including the WDRs that regulate discharges from the Facility. More information regarding the CV-SALTS regulatory planning process can be found at the following link: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/).