



**FACTSHEET**  
**(pursuant to NAC 445A.236)**

**Permittee Name:** OLSEN BROS. DAIRY  
4170 BASS RD  
FALLON, NV - 89406

**Permit Number:** NS2016505

**Location:** HILLSIDE DAIRY, CHURCHILL  
4170 BASS RD, FALLON, NV - 89406  
LATITUDE: 39.427130, LONGITUDE: -118.807643  
TOWNSHIP: T18N, RANGE: R28E, SECTION: S14

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	DAIRY TOTALS	Internal Outfall		FALLON	NV	894060000	CHURCHILL	41.9150	-118.6980	WATERS OF THE STATE
002	LAGOON 1	Internal Outfall		FALLON	NV	89406	CHURCHILL	41.9150	-118.6980	WATERS OF THE STATE
003	LAGOON 2	Internal Outfall		FALLON	NV	89406	CHURCHILL	41.9150	-118.6980	WATERS OF THE STATE
004	MONITORING WELL	Monitoring Well		FALLON	NV	89406	CHURCHILL	41.9150	-118.6980	WATERS OF THE STATE
006	CORRAL/SEPERATOR MANURE TESTING AND TRANSFER	External Outfall		FALLON	NV	89406	CHURCHILL	41.9150	-118.6980	WATERS OF THE STATE

**General:**

The Permittee, Olsen Bros. Dairy, doing business as Hillside Dairy, has applied for a new groundwater discharge permit NS2016505 to discharge dairy manure and process wastewater to waters of the State. Hillside Dairy, first established in 1915, is located approximately 3.5 miles south of the junction of Highway 50 and Allen Road, at 4170 Bass Road, Fallon.

Hillside Dairy is defined as a concentrated animal feeding operation (CAFO) because the dairy reports to confine at least 700 mature dairy cows for 30 days or more in a 12-month period in an area devoid of vegetation during the normal growing season. As a CAFO, Hillside Dairy is required to contain, without discharge, all manure and process wastewater from the production area. CAFOs that land apply manure and/or process wastewater are required to comply with a Nutrient Management Plan (NMP). CAFOs are regulated primarily through adherence to these nutrient application rates and NMP compliance items. Precipitation related runoff from land application areas where manure and/or process water have been applied in accordance with the Division-reviewed NMP is exempt from permitting requirements.

Hillside Dairy consists of a single facility owned and operated by the Permittee. The dairy construction is industry typical with open corrals constructed with pipe and cables, concrete feed aprons and feed bunks, feed alleys and cow movement alleys, feed storage areas and associated storage structures, maintenance facilities and waste management/control structures. The facility has reported that it will confine approximately 3,000 milking cows, 400 dry cows, and 1,000 heifers on site. Manure generated by the dairy in excess of crop production needs and land availability will be stockpiled or composted within the footprint

of the production area in a manner that is compliant with all permit requirements. Manure may also be transferred to other agricultural users. There are approximately 620 acres of land application area identified in the NMP and owned by the dairy. Solid manure applications are based on soil and manure testing and on crop nutrient uptakes as outlined in the Division reviewed NMP. Routine mortalities are picked up by a commercial rendering facility. The NMP was developed by NRCS based on population of livestock stated above and the available land application area.

**Discharge Characteristics:**

Hillside Dairy has requested a 30-day average discharge limit of 30,000 gallons per day (gpd). The waste storage facilities, to include the manure separation basins and lined lagoons, and storage calculations were prepared and designed by Nevada NRCS. Process wastewater/manure generated by the dairy operations will flow via pipeline to dual concrete "weeping wall" manure settling basins. When manure is added to the basins, liquids drain through the weeping wall into a decant area while retaining solids in the basin. The liquid is then directed to one of two 60-mil high-density polyethylene (HDPE) lined ponds. The newly constructed ponds have a total net storage capacity of 8,099,748 gallons. The pond storage period was defined conservatively as October through April. Storage capacity of the ponds was based on amount of wastewater produced by the dairy, freeboard, seasonal precipitation minus evaporation, and the 25-year, 24-hour design storm.

**Receiving Water:**

The Permittee will use a combination of evaporation and land application to re-use the process wastewater generated by the facility. The Permittee will discharge to groundwater via irrigation and may discharge manure and process wastewater in response to storm events or chronic rainfall event that exceed the 25-year, 24-hour storm design, provided that the facility and its production areas are properly designed constructed, operated and maintained to contain manure, pollutants, direct precipitation and the runoff from a 25-year 24-hour storm event. This permit does not allow for discharges from the production area to Waters of the United States or conveyances of such.

**Summary of Changes From Previous Permit:**

This is a new permit.

**Proposed Effluent Limitations:**

During the period beginning on the effective date of this permit, the Permittee is authorized to discharge manure and process wastewater to: 1) Land application areas, reported at 620.1 acres, in accordance with a Division reviewed Nutrient Management Plan, and 2) Waters of the State in response to storm events or a chronic rainfall event that exceeds the 25-year 24-hour storm design, provided that the facilities and their production areas are properly designed constructed, operated and maintained to contain manure, pollutants, direct precipitation and the runoff from a 25-year 24-hour storm event.

### Groundwater Monitoring Wells Table for Sample Location 004 (Monitoring Well) To Be Reported Annually

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Annual	DISCRT
pH	Value		M&R Standard Units (SU)	Groundwater	004	Annual	DISCRT
Depth to water level ft below landsurface	Daily Maximum	M&R Feet (ft)		Groundwater	004	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Groundwater	004	Annual	DISCRT
Nitrogen, total	Daily Maximum		<= 10 Milligrams per Liter (mg/L)	Groundwater	004	Annual	DISCRT

**CAFO Discharge Limitations Table for Sample Location 001 (Dairy Totals) To Be Reported Monthly**

Discharge Limitations				Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	30 Day Average	<= 30000 Gallons per Day (gal/d)		Internal Monitoring Point	001	Weekly	METER
Animals, total estimated no. of	30 Day Average		M&R Number (#)	Internal Monitoring Point	001	Monthly	CALCTD

**CAFO Discharge Limitations Table for Sample Location 001 (Dairy Totals) To Be Reported Quarterly**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Manure, wet tons total	30 Day Average		M&R Tons (ton)	Internal Monitoring Point	001	Quarterly	ESTIMA
Manure, wet tons removed	30 Day Average		M&R Tons (ton)	Internal Monitoring Point	001	Quarterly	ESTIMA

### CAFO Discharge Limitations Table for Sample Location 002 (Lagoon 1) To Be Reported Semi Annually

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	002	Semiannual <sup>[1]</sup>	DISCRT

#### Notes (CAFO Discharge Limitations Table):

1. Semi-annual measurements shall be conducted in the 2nd quarter and 4th quarter of each calendar year.

### CAFO Discharge Limitations Table for Sample Location 003 (Lagoon 2) To Be Reported Semi Annually

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
pH	Value		M&R Standard Units (SU)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
Solids, total suspended	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT
BOD, 5-day	Daily Maximum		M&R Milligrams per Liter (mg/L)	Prior to Irrigation	003	Semiannual <sup>[1]</sup>	DISCRT

#### Notes (CAFO Discharge Limitations Table):

1. Semi-annual measurements shall be conducted in the 2nd quarter and 4th quarter of each calendar year.

**CAFO Discharge Limitations Table for Sample Location 006 (Corral/Seperator Manure Testing And Transfer) To Be Reported Annually**

Parameter	Discharge Limitations			Monitoring Requirements			
	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Manure, wet tons removed	Annual Total		M&R Tons (ton)	Internal Monitoring Point	006	Annual	CALCTD
Nitrogen, total	Daily Maximum		M&R Milligrams per Kilogram (mg/kg)	Internal Monitoring Point	006	Annual	COMPOS
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Kilogram (mg/kg)	Internal Monitoring Point	006	Annual	COMPOS

**Rationale for Permit Requirements:**

Monitoring requirements for the parameters specified in the permit are being established to ensure that the Permittee has appropriate manure and process wastewater data to comply with the Division reviewed Nutrient Management Plan and to determine any potential impacts to Waters of the State that may occur in response to related discharges or seepage.

Electronic Reporting: The Bureau of Water Pollution Control (BWPC) Nevada NetDMR system is a web based site that enables the Permittee the ability to enter and electronically submit DMR data. By using the Nevada NetDMR, the Permittee will save time, see a reduction in paperwork burden, and data will automatically error-check and validate the information prior to submission. The system also allows for electronic submittal of attachments and supplemental documentation and provides instant confirmation of submission.

**Special Conditions:**

## SA – Special Approvals / Conditions Table

Item #	Description
1	Part A, Section A.6 does not apply to this permit. A Certified Operator is not required for this facility.
2	Part B.CO.23 - Soil sampling shall be conducted in accordance with Part IX of the Division reviewed Nutrient Management Plan (NMP) and results shall be submitted to the Division as part of the annual report.
3	Part C, Section C.2 - does not apply to this permit. Operations and Maintenance of this facility are specifically identified in the Division reviewed NMP.
4	Part C, Section C.13 - does not apply to this permit. This section is for biosolids management from treatment facilities. Manure management at this facility is specifically addressed in the Division reviewed NMP.
5	As indicated in the NMP Part III: <u>Collection Function Requirements</u> - The total required storage period for 5 months (Nov. - Mar.) process water (40 ac-ft), runoff from the 25-year, 24-hour storm event(15.4 ac-ft), and direct precipitation on the ponds is 55.4 ac-ft. Sludge storage and extra working capacity is 16.9 ac-ft. The total operational capacity of the lagoons is 72.3 acre-feet. <u>Transfer Function Requirements</u> - Manure may be stockpiled in and around the pens and in places of the facility's production area that drain to the wastewater impoundments. Manure may also be transferred to a third party.
6	The Hillside Dairy NMP is based on the "narrative rate approach" and provides for changes to crop rotation without permit modification provided the crop and nutrient application parameters are identified in the NMP.
7	Part B, Section B.CO.4 - does not apply to this permit. Applies to Swine, Poultry and Veal Calf operations only.

**Flow:**

Flow is limited to 30,000 gpd, 30-day average.

**Corrective Action Sites:**

There are no Bureau of Corrective Actions sites within a one mile radius of Hillside Dairy.

**Wellhead Protection Program:**

This facility is not located within an established Drinking Water Protection Area or Wellhead Protection Area.

**Schedule of Compliance:**

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	Within 1 year of permit issuance, all Discharge Monitoring Reports (DMRs) shall be submitted electronically through the Nevada NetDMR website. <a href="https://netdmr.ndep.nv.gov/netdmr/public/home.htm">https://netdmr.ndep.nv.gov/netdmr/public/home.htm</a>	7/28/2017

**Deliverable Schedule:**

## DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly Discharge Monitoring Reports	Quarterly	7/28/2016
2	Semi-Annual Discharge Monitoring Reports	Semi Annually	7/28/2016
3	Annual Report	Annually	1/28/2017

**Procedures for Public Comment:**

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being sent to the **Lahontan Valley News, Reno Gazette Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **4/18/2016**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

**Proposed Determination:**

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by: **Michele Reid**

Date: **3/10/2016**

Title: **Staff II Associate Engineer**