

Sunset Dairy
Inspection Date 06/08/2022



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	06/08/2022	
Media Program:	Water	
Regulatory Program(s)	CAFO	
Company Name:	Sunset Dairy 32.088444, -106.633842	
Facility Name:	Sunset Dairy	
Facility Physical Location:	17900 South Stern Drive	
(city, state, zip code)	Mesquite, NM 88048	
Mailing address:	same	
(city, state, zip code)	same	
County/Parish:	Dona Ana	
Facility Phone Number		
Facility Contact:	Linda Armstrong	Owner Partner and CNMP
	lindaarmstrong@zianet.com	
FRS Number:	110010802925	
Identification/Permit Number:	NMG010019	
Media Identifier Number:	N/A	
NAICS:	112120	
SIC:	0241	
Personnel participating in inspection:		
Linda Armstrong	Sunset Dairy	CNMP
Lucas Bomar	EPA/6ECAD-WA	Inspector
Levi Dean	NMED SWB	Inspector Supervisor
Juan Ibarra	EPA/6ECAD-WA	Inspector - Lead
EPA Lead Inspector Signature/Date		
	{Inspector name}	Date
Supervisor Signature/Date		
	{Supervisor name}	Date

Section I – INTRODUCTION**PURPOSE OF THE INSPECTION**

EPA Region 6 inspectors Juan Ibarra and Lucas Bomar, along with NMED Surface Water Quality Bureau inspector supervisor Levi Dean, arrived at Sunset Dairy at 0902 on June 8, 2022, for an announced inspection (due to Covid precautions and scheduling coordination). We met with Ms. Linda Armstrong/Facility Certified Nutrient Management Planner (CNMP) at the Opening Conference. I presented my credentials to Ms. Armstrong and informed her that this was an EPA inspection to determine the facility's compliance status with the requirements of the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) Concentrated Animal Feeding Operation (CAFO) regulations stipulated within the facility's EPA CAFO general permit. The scope of the inspection included a compliance evaluation of the facility's site operations, lagoon maintenance, nutrient management plan, and record keeping requirements of their permit. For biosecurity purposes, the inspectors toured the site in Ms. Armstrong's vehicle and wore over-boots.

FACILITY DESCRIPTION

Sunset Dairy has a current permit and Nutrient Management Plan (NMP) for 5100 total cows, of which 3100 can be mature dairy cattle and 2000 can be heifers. At the time of the inspection, there were 3118 mature dairy cattle (milking and dry cows) and 292 calves and heifers. The cows are milked twice daily and are all kept in open pens. The facility has three HDPE lined retention control structures (RCSs) and they also utilize a portion of the adjacent Desertland HDPE storm water RCS (same owners) for the Sunset Dairy pens located at the northwest corner of the facility (see the aerial site map in Appendix 1). The milking parlor discharges process wastewater into the Wastewater RCS which is preceded by solids separation. The solids separator consists of a pair of concrete settling basins and a single manure screen. The solids separator is located on the east side of the Wastewater RCS (see the aerial photograph and Photos 4 and 5 in Appendix 1).

The Wastewater RCS has a design capacity of 10.32 acre-feet. The Dairy Storm Water Runoff RCS (serving most of the dairy cattle pens) has a design capacity of 13.86 acre-feet. The dairy also has a feedlot which is separate from the rest of the dairy site and has its own RCS. The Feedlot Storm Water RCS has a design capacity of 0.87 acre-feet. All three RCSs are dewatered using flood irrigation land application. The NMP also includes RCS information on the design, construction/"As-Built", and the original engineer's certification (by Marvin McGee, P.E.).

Land application is done on two Land Management Units (LMUs), which are flood irrigated out of the Wastewater RCS. The Storm Water Runoff RCS is dewatered by pump into the Wastewater RCS. The Feedlot Storm Water RCS has not been dewatered in the recent past, but if it had to be dewatered, it would be pumped directly into the land application ditch.

The dairy land applies process wastewater from the Wastewater RCS to two flood irrigated land management units (LMUs). LMU A-E totals 47.6 acres, and LMU H-J totals 43.2 acres for a total of 90.8

acres. The nutrient management records were reviewed during the inspection and the dairy was found to be appropriately land applying nutrients at the nitrogen based agronomic rate. The dairy is not using phosphorus as the limiting nutrient, as the Phosphorus Index did not require a phosphorus-based limit. Additionally, all manure solids are given away to third-party farmers, and mortalities are picked up daily by Karl Schneider for rendering. Records for these activities were well managed and complete for the disposition of these wastes.

The dairy reports that they use fresh ground water to operate the dairy and flush the milking parlor. The dairy does not use any recycled water, but only fresh water. Ms. Armstrong stated that the dairy was originally designed to operate at a fresh water use rate of 60,000 gpd, but that has been reduced to 12,804 gpd.

Section II – OBSERVATIONS

Crops were recently harvested from the LMUs, and as such the tailwater control berms were down, but will be rebuilt before the LMUs are once again flood irrigated. The facility uses LMUs A-E and H-J which are each contiguous parcels of laser leveled land that are bermed by tractor when the fields are in-use and not being harvested. Triticale is the winter crop and Sudan is the summer crop.

There appears to be a significant accumulation of manure solids in the Wastewater RCS as shown in Photo 4 (of Appendix 1). See AOC 1 which describes the concern and lists the requirement for RCS maintenance in the EPA permit. There are also two areas where berm maintenance is required to ensure that storm water runoff from the cattle pens is directed into one of the storm water RCSs during the 25-yr/24-hr rain event as shown in Photos 3 and 5 (see AOC 2).

The Wastewater and Feedlot Storm Water lagoons were last certified for the “5-year No Hydrologic Connection” on 3/5/2018 (also by Marvin McGee, P.E.), but the Storm Water Runoff RCS is overdue for its 5-year No-Hydrologic Connection which was due by 5/23/2022 (see AOC 3). Both the Storm Water Runoff and Feedlot Storm Water lagoons are dry, as is the southern portion of the Desertland lagoon which receives runoff from the northern Sunset Dairy pens. The Feedlot lagoon is, however, missing a lagoon level marker (see AOC 4).

The Storm Water Runoff RCS was due for its 5-year No Hydrologic Connection on 5/23/2022, and the Feedlot Storm Water RCS does not have a lagoon level marker (see AOC 4).

An excessive amount of manure has accumulated at the south end of the feedlot pen (see Photo 6) which may cause contaminated storm water runoff to flow to the south and west, potentially leaving the production area instead of being directed to the Feedlot Storm Water RCS (see AOC 5).

The dairy has excellent record keeping and a thoroughly documented NMP, and aside from the two issues described above, the dairy is well managed and operated.

No other issues were found during the inspection.

Section III – AREAS OF CONCERN

AOC 1 - The manure solids level in the Wastewater RCS should be evaluated for design solids capacity to determine if the RCS has sufficient capacity for the 60 days of operation and the 25-yr/24-hr rainfall event. The Wastewater RCS either needs to be assessed by an engineer to ensure that sufficient wastewater capacity still exists within this RCS, and that the solids accumulation has not exceeded the units design limits, or the dairy may choose to remove the excess manure solids from the unit and give them to a third party. Part III.A.3.a. of the EPA permit requires “....adequate storage of manure.....including procedures to ensure proper operation and maintenance of the storage facilities. All wastewater and manure containment structures shall at a minimum be designed, constructed, operated, and maintained in accordance with the standards of the Natural Resources Conservation Service, Field Office Technical Guide.” Additionally, Part III.D.2 also requires that “The operator shall restore the storage capacity as soon as possible after any rainfall event or accumulation of wastes reduces such storage capacity...”. This would include manure solids accumulation within an RCS.

AOC 2 - The runoff diversion berm located north of the manure screen needs to be improved to ensure that runoff from the pens is directed into the Storm Water Runoff RCS. Also, the runoff diversion berm located on the south side of the access road next to the new pen area needs maintenance to ensure that runoff from that area is also directed into the Storm Water Runoff RCS. The dairy shall prevent any discharge of manure or process wastewater pollutants into waters of the U.S. by ensuring proper design, construction, operation of maintenance to contain all manure and process wastewater from the 25-yr/24-hr storm event as required in Part II.A.1.a.i. of the EPA permit.

AOC 3 - The Storm Water Runoff RCS was due for its 5-year No Hydrologic Connection on 5/23/2022 as required in Part III.D.1.c. of the EPA permit.

AOC 4 - The Feedlot RCS does not have a lagoon level marker as required in Part II.A.2.a.iii of the EPA permit.

AOC 5 – An excessive amount of manure has accumulated at the south end of the feedlot pen which may cause contaminated storm water runoff to flow to the south and west, possibly leaving the production area instead of being directed to the Feedlot Storm Water RCS. Part II.A.2.b.vii of the EPA permit requires that the dairy remove excess manure from the south end of the feedlot pen to ensure that contaminated storm water runoff doesn’t leave the production area and that it is directed to the Feedlot Storm Water RCS. If needed, additional berms may be required.

Section IV – FOLLOW UP

None

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – Seven photos taken 6/08/2022 and a DigitalGlobe aerial with locations of significant photographs and structures

Appendix 1

Photograph Log and Site Aerial



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0737.JPG

Date of Photo: 06/08/2022

Time of Photo: 1159

Photographer: Lucas Bomar

Description: The driveway which separates Desertland Dairy on the left (north) and Sunset Dairy on the right (south). The Sunset Dairy pens shown in this photograph are the northwestern most pens of Sunset Dairy. These pens would discharge storm water runoff into the Desertland Dairy Wastewater and Storm Water Combo Lagoon RCS. The view is toward the east.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0738.JPG

Date of Photo: 06/08/2022

Time of Photo: 1159

Photographer: Lucas Bomar

Description: Looking north at the dry portion of the Desertland Dairy Wastewater and Storm Water Combo Lagoon RCS which would receive storm water runoff from the most northwest pens of Sunset Dairy.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0739.JPG

Date of Photo: 06/08/2022

Time of Photo: 1205

Photographer: Lucas Bomar

Description: Berm maintenance is needed at the northwest pen area to ensure that runoff from the 25-yr/24-hr rain event is channeled to the Desertland Dairy Wastewater and Storm Water Combo Lagoon RCS (seen in the background right). The view is toward the west.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0740.JPG

Date of Photo: 06/08/2022

Time of Photo: 1215

Photographer: Lucas Bomar

Description: The Sunset Dairy manure screening/settling area located on the east side of the Wastewater RCS (seen on the right side of the screen). The view is toward the south.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0741.JPG

Date of Photo: 06/08/2022

Time of Photo: 1218

Photographer: Lucas Bomar

Description: The Sunset Dairy Wastewater RCS appears to have a significant amount of solids accumulation. An engineer should evaluate the RCS capacity for wastewater containment and determine if the unit has exceeded its solids retention capacity, or the facility may choose to remove these solids themselves. The view is toward the northwest.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0742.JPG

Date of Photo: 06/08/2022

Time of Photo: 1251

Photographer: Lucas Bomar

Description: The berm on the south side of the road next to the new pen area needs to be improved to ensure that runoff from the 25-yr/24-hr rain event is channeled into the Storm Water Runoff RCS. The view is toward the west.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico



Photo File Name: DSCN0743.JPG

Date of Photo: 06/08/2022

Time of Photo: 1305

Photographer: Lucas Bomar

Description: An excessive amount of manure solids has accumulated on the south side of the feedlot pens next to the road. These manure solids need to be removed to help ensure that contaminated runoff from the built-up manure does not discharge off-site during the 25-yr/24-hr rain event. Berm improvement may also be needed to ensure that the pen's storm water runoff is channeled to the north (right) into the Feedlot Storm Water RCS. The view is toward the west.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

Location: Sunset Dairy		
City: Mesquite	County: Dona Ana	State: New Mexico

Sunset Dairy aerial taken from DigitalGlobe 2/27/2022 and location of significant photographs

