CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

INSPECTION REPORT

DATE: 8 May 2012

LOCATION & COUNTY: Henry Tosta Dairy
20662 San Jose Road, Tracy
San Joaquin County

CONTACTS: Henry Tosta (209-814-0139) / Jim Avila

INSPECTION DATE: 1 May 2012

INSPECTED BY: Sean Walsh / Gilberto Corral (CVRWQCB)

OBSERVATIONS AND COMMENTS:

Regional Water Quality Control Board staff (staff) conducted a routine compliance inspection at the Henry Tosta Dairy on 1 May 2012. The dairy is located at 20662 San Jose Road in Tracy. The Henry Tosta Dairy is permitted for 1196 mature cows; the facility houses approximately 1180 mature cows (1051 milking, 140 dry). Map 1 depicts the location of features described in this inspection report.

General Order-required operational documents were reviewed. The Nutrient Management Plan (NMP) is inaccurate regarding solid manure application. The NMP states solid manure is applied to both corn and oats in Field 1; Mr. Tosta stated he does not apply solid manure to corn and oats in Field 1. The NMP states that solid manure is applied to oats and winter forage in Field 2; Mr. Tosta stated he does not apply solid manure to oats and winter forage in Field 2. The NMP states solid manure is applied to oats and corn in Field 6; Mr. Tosta stated he does not apply solid manure to oats and corn in Field 6. The NMP states solid manure is applied to oats and corn in Field 8; Mr. Tosta stated he does not apply manure solids to corn in Field 8. Mr. Tosta stated that he does not apply any manure to any cropland. Because the NMP states that manure is being applied to cropland, the projected amount of exports required for the facility is underestimated.

The Waste Management Plan (WMP) is inaccurate regarding silage leachate storage and liquid manure management. According to a map included in the WMP, silage leachate flows into Settling Basin #1; this is not accurate, the conveyance channel routes the leachate through a corral before ponding in an area not designed to store waste located west of the wastewater storage lagoons. While on-site, staff observed a tractor depositing slurry manure into an area not designed to store waste (Photos 31-32); the WMP does not reflect this area as storage. Overall, the WMP indicates that wastewater and manure can be moved between the settling basins and lagoons in the Production Area. Staff observed a loosely defined channel that conveys wastewater from Settling Basin #2 to Wastewater Storage Lagoon #1 (Photo 10) but

did not observe controls that allow wastewater to be transferred between any of the other settling basins and lagoons.
The remainder of the operational documents were inspected and found to be accurate and complete.

Well #1 had no well-pad and was within 100' of a source of wastewater (Photos 1-3).

The facility utilizes two settling basins and five wastewater storage lagoons:

Impoundment	Freeboard	Excessive Vegetation	Staff Gauge	Other Issues	Corresponding Photo
Settling Basin 1	None	Yes	No	No	Photo 4,6
Settling Basin 2	None	Yes	No	Yes	Photo 8-10
Lagoon 1	3-4 feet	Yes	No	No	Photo 11
Lagoon 2	3-4 feet	Yes	No	No	Photo 12
Lagoon 3	3-4 feet	Yes	No	No	Photo 13
Lagoon 4	3-4 feet	Yes	No	No	Photo 14
Lagoon 5	3-4 feet	Yes	No	Yes	Photo 15-17

The complex of wastewater impoundments is being poorly managed and showed no staff gauges, excessive vegetation and manure on and adjacent to the embankments, solid manure being used to reinforce embankments at Settling Basin #2, no definition between any of the impoundments, and a PVC pipe connecting Settling Basin #1 to the Main Drain canal of Naglee-Burk Irrigation District (Photo 5). Additionally, it was difficult for staff to determine the lagoon dimensions and embankment integrity of select lagoons due to the amount of solid manure and weeds located on the impoundment embankments (Photo 8,9,11, and 12). Mr. Tosta stated the lagoons were cleaned out approximately 6-7 years ago. No method to move wastewater between the settling basins and lagoons could be observed during the inspection with the exception of the southern settling basin; this basin can transfer wastewater to the wastewater storage lagoon via a loosely defined earthen channel.

Immediately west of Settling Basin #2 and Lagoons #1-5 is an area of native soil that is used to store liquid wastewater, solid manure, and slurry manure. This area has not been prepared or designed to store waste, and is not contained or graded to prevent ponding of wastewater. Staff estimates this area to be approximately 3-4 acres with manure one to three feet deep in places (Photos 18-26).

Silage is covered and stored on a concrete slab. Silage leachate flows west from the concrete slab into a channel that conveys the leachate south before entering a corral. Some leachate

remains ponded in the corral and some continues to flow into the 3 to 4 acre area. The above mentioned channel contains excessive manure and old feed (Photo 30).

Select corrals contained excessive manure and ponding of wastewater (Photos 28-29). The excessive manure and ponding of wastewater is due to the 3-4 acre slurry area backing up into the corral. The remainders of the corrals were well-graded with all run-off ultimately discharging to Setting Basin #1.

Cropland tailwater is contained using berms, ditches, and a tailwater return system.

REMEDIATION ITEMS NEEDED AT THE DAIRY:

1) Modify Waste Management Plan to reflect actual on-site conditions in the production area, including the use of the area where slurry is deposited.

2) Install a well-pad at Well #1 and install a control to prevent wastewater from ponding near the well.

3) Remove all manure and old feed from the channel located south of the silage pit.

4) Remove all weeds from Settling Basins #1 and 2 and Lagoons #1-5.

5) Install staff-gauges in Settling Basins #1 and 2 and Lagoons #1-5.

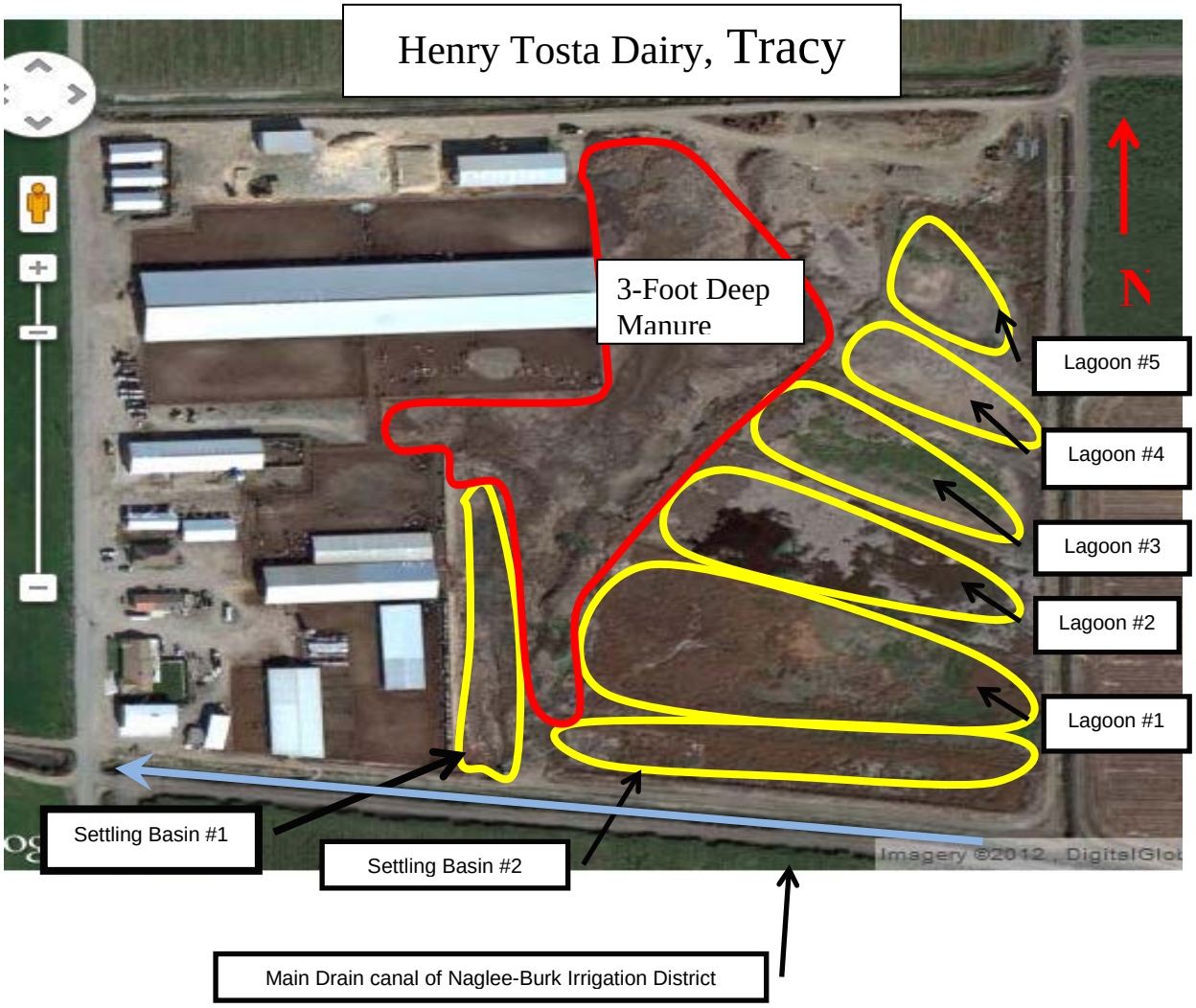
6) Reconstruct Settling Basin #2's eastern embankment. The material used to construct the embankment cannot be manure.

7) Remove all manure from the corral in the northeast corner of the production area (Photos 27-29). All manure should be exported off-site or otherwise managed to mitigate the impact. Provide documentation regarding the amount of manure removed and the destination of manure. After the manure is removed, the corral should be graded to prevent ponding.

8) Remove all wastewater, solid manure, and slurry manure from the area located west of the wastewater storage lagoons and northeast of Settling Basin #1 (Photos 18-26). This area must be scraped to native soil. All manure should be exported off-site or otherwise managed to mitigate the impact. Provide documentation regarding the amount of manure removed and the destination of the manure. Groundwater samples should be obtained from the above mentioned area after the manure is removed.

9) Remove all manure from Settling Basins #1 and 2. All manure should be exported off-site or otherwise managed to mitigate the impact. Provide documentation regarding the amount of manure removed and the destination of manure.

10) Locate and sample the three groundwater monitoring wells that are located on the facility property and submit the analysis results to the Central Valley Water Board.



Map 1: Satellite image of the Henry Tosta Dairy depicting the location of features described in the inspection report.

Photo 1: Well #1 with no well-pad.

Photo 2: Well #1 with a corral in the background. The corral is approximately 70’ from the well. See Photo #3 for a close-up of the corral and the solid manure being stored adjacent to the corral.

Photo 3: The corral near Well #1 contained significant amounts of solid manure. Additionally there was slurry manure being stored adjacent to the corral (about 70' from Well #1).

Photo 4: Looking north at Settling Basin #1.

Photo 5: Photo of a black PVC pipe on the bank of the Main Drain Canal of Naglee-Burk Irrigation District; the pipe is connected to Settling Basin #1. Note that the pipe is uncapped.

Photo 6: Looking north at the Settling Basin #1 (at capacity).

Photo 7: Looking north at the area between the Settling Basin #1 and Settling Basin #2; the pictured area contains a significant amount of solid and slurry manure.

Photo 8: Looking northeast at Settling Basin #2. The amount of weeds on the settling basin embankments made it impossible for staff to determine embankment integrity and/or if rodent holes are present.

Photo 9: Looking northeast at the eastern end of the Settling Basin #2; the material composing a portion of the eastern embankment appeared to be manure.

Photo 10: Looking north at the conveyance channel that connects Settling Basin #2 to Wastewater Storage Lagoon #1. This is typical of all the lagoons at the facility – channels connecting the lagoons have marginal slope, no definition, and contained excessive weeds.

Photo 11: Wastewater Storage Lagoon #1. The embankments contained excessive weeds and there was no staff-gauge.

Photo 12: Wastewater Storage Lagoon #2. The embankments contained excessive weeds and there was no staff-gauge.

Photo 13: Wastewater Storage Lagoon #3. The embankments contained excessive weeds and there was no staff-gauge.

Photo 14: Wastewater Storage Lagoon #4. The embankments contained excessive weeds and there was no staff-gauge.

Photo 15: Wastewater Storage Lagoon #5. The embankments contained excessive weeds and there was no staff-gauge. This pond is irregularly shaped containing a small alcove full of weeds in the northeast corner (see Photo 16-17).

Photo 16: Small alcove in the northeast corner of Wastewater Storage Lagoon #5.

Photo 17: Wastewater Storage Lagoon #5. Note the weeds that extend from the lagoon to the left in the center of the photo (creating the alcove and irregular shape).

Photo 18: Looking north at the area west of the storage lagoons. This area contained massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 19: Looking north at the area west of the storage lagoons. This area contained massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 20: Looking west at the area west of the storage lagoons. This area contained massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 21: Looking southwest at the area located west of storage lagoons; this area contained massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 22: Looking southwest down the western edge of the storage lagoons – note massive amount of solid manure, slurry manure, and liquid wastewater.

Photo 23: Looking southwest at an area west and northwest of the wastewater storage lagoons – note massive amounts of solid manure, slurry manure, and liquid wastewater. See Photo #24 for a different view.

Photo 24: Looking west at an area west and northwest of the wastewater storage lagoons – note massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 25: Looking south down the northern edge of the production area.

Photo 26: Looking south from the northern perimeter of the production area. Note massive amounts of solid manure, slurry manure, and liquid wastewater.

Photo 27: The eastern end of this corral was under wastewater at the time of our visit.

Photo 28: Eastern end of the northern corral was under wastewater at the time of our visit.

Photo 29: Same corral as pictured in Photos #27 and #28.

Photo 30: Looking east at the channel that is located immediately north of the corral pictured in Photos 27-29; the channel contains a significant amount of solid manure, slurry manure, and old feed.

Photo 31: Note tractor pushing slurry manure into an area not designed to store wastewater and/or solid manure. See Photo #32 for a better photo of the area.

Photo 32: The operator dumps slurry manure and wastewater into this open lot; which is not designed to store wastewater or solid manure.