

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

INSPECTION REPORT

DATE: 19 December 2012

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

CONTACTS: Henry Tosta

INSPECTION DATE: 7 December 2012

INSPECTED BY: Sean Walsh, Charlene Herbst, Gilberto Corral (CVRWQCB)

ACCOMPANIED BY: Lieutenant Joe Mello (CA Department Fish & Wildlife)
Lieutenant Hector Orozco (CA Department Fish & Wildlife)



OBSERVATIONS AND COMMENTS:

On 1 May 2012 Regional Water Quality Control Board staff (Water Board staff) conducted a routine compliance inspection at the Henry Tosta Dairy located at 20662 San Jose Road in Tracy. The inspection revealed several serious violations of the General Order including a massive amount of manure being stored on unprepared native soil. On 11 June 2012 a Cleanup And Abatement Order (11 June 2012 CAO) was issued to the Henry Tosta Dairy.

Water Board staff conducted an inspection at the Henry Tosta Dairy on 7 December 2012 in response to statements made by Henry Tosta and published at Recordnet.com indicating "most of the manure is now gone" that was being stored on unprepared native soil at the Henry Tosta Dairy. Two maps are included in this report for reference: Map #1 is the Tosta Dairy IF1b – Production Area Wastewater Map copied from the Henry Tosta Dairy Waste Management Plan; and Map #2 is an air photo of the Henry Tosta Dairy obtained on 3 December 2012.

The southern perimeter of the property contains a storm water drain that routes storm water through solid manure before entering a concrete channel that is designed to convey water into Settling Basin #1 (SB1). When SB1 is at capacity it appears a portion of the water ponds in the concrete channel and has the ability to over-top and/or back-flow from the channel south off-property into the Naglee-Burk Irrigation canal; another portion flows into the corral that is adjacent to the above mentioned concrete channel. At the time of this inspection puddles of wastewater and solid manure were present on the access road south of the concrete channel and north of the Naglee-Burk canal (see Photos 1-3).

At the time of the inspection SB1 had approximately 1' of freeboard. Staff observed puddles of wastewater and wet soil on the east embankment of SB1 indicating wastewater had recently over-topped the embankment (Photo 4). It appeared to Water Board staff that a portion of the wastewater in SB1 had been transferred to the 3-4 acre slurry area (Photos 5-6). A large notch

was cut into the manure berm that separates SB1 from the 3-4 acre slurry area; it appears the notch was used to facilitate the water transfer from SB1 to the 3-4 acre slurry area (Photo 7).

At the time of the inspection Settling Basin #2 (SB2) had less than 1' freeboard (Photo 8). The basin is designed to transfer wastewater to Wastewater Storage Lagoon #1 (L1) via an underground pipe. It appears since the west side of L1 is full of solid manure (Photo 10), or the transfer pipe is clogged, an earthen channel has been constructed at the east end of SB2/L1 by-passing the transfer pipe allowing the wastewater to flow directly to L1. At the time of the inspection, the above mentioned by-pass channel was blocked with a solid manure berm causing ponding inside the conveyance channel (Photo 9).

At the time of the inspection the eastern end of L1 was full of solid manure. Also the eastern embankment of L1 was constructed with solid manure (Photo 11).

L1 contains significant amounts of windrowed solid manure and process wastewater (Photos 12-13).

Wastewater Storage Lagoon #2 (L2) contains solid manure and process wastewater. A notch has been cut into the west berm of L2 and L4 (Photos 13-14, 16).

Wastewater Storage Lagoon #3 contains a small amount of solid manure.

Wastewater Storage Lagoon #4 contains a small amount of solid manure.

Wastewater Storage Lagoon #5 contains a small amount of solid manure.

The 3-4 acre slurry area contains a significant amount of solid manure, slurry manure, and process wastewater, and is still being used to store waste (Photos 16-21). The freestall barn that contains the milking-cows is still being scraped into the slurry area; the northern corral located south of the silage pit drains directly to the slurry area (Photo 22); the silage pit ultimately drains to the slurry area (Photo 23); and it appears the milk-barn wash out ultimately drains to the slurry area. Additionally, in order to increase freeboard at SB1 it appears a significant amount of wastewater was transferred from SB1 to the 3-4 acre slurry area (Photos 5-7).

The silage is located on a concrete slab. All silage leachate flows south off the slab and into an earthen lined channel that conveys the leachate east before flowing southeast through a corral ultimately ponding in the 3-4 acre slurry area (Photos 22-23).

The corral south of the silage pit contains a significant amount of slurry manure and process wastewater (Photo 24) and is not contained. The corral run-off flows east discharging out of the corral and ponding in the 3-4 acre slurry area (Photo 22-23).

Staff observed a point of discharge immediately west of Monitoring Well #3 at the northern perimeter of the production area (Photo 25). It appears a berm was breached allowing wastewater/silage leachate to discharge north into a cropland field drain that has the ability to

convey water off-property. The breach had been patched with dirt and hay (Photo 25). The water in the ditch immediately adjacent to the breach/patch was dark brown in color (electrical conductivity = 5,985 $\mu\text{s}/\text{cm}$, pH = 7.86, and temperature = 12.5° C). Large puddles of wastewater in the immediate area further indicate the discharging waters was process wastewater from the dairy.

The cropland immediately north of the northern perimeter of the production area contained a small amount of water. It appeared the water would ultimately flow south via an open valve into a ditch that has the ability to convey water off-property. The electrical conductivity of the water in the field was 2200 $\mu\text{s}/\text{cm}$; an ammonia strip indicated ammonia was more than 1.0 ppm.

Several dead animals were observed north of the milk barn out of site from the road and placed behind several pieces of equipment. It didn't appear to staff that the dead animals were staged where a rendering company would be able to access and remove the dead animals. (Photos 26-28).

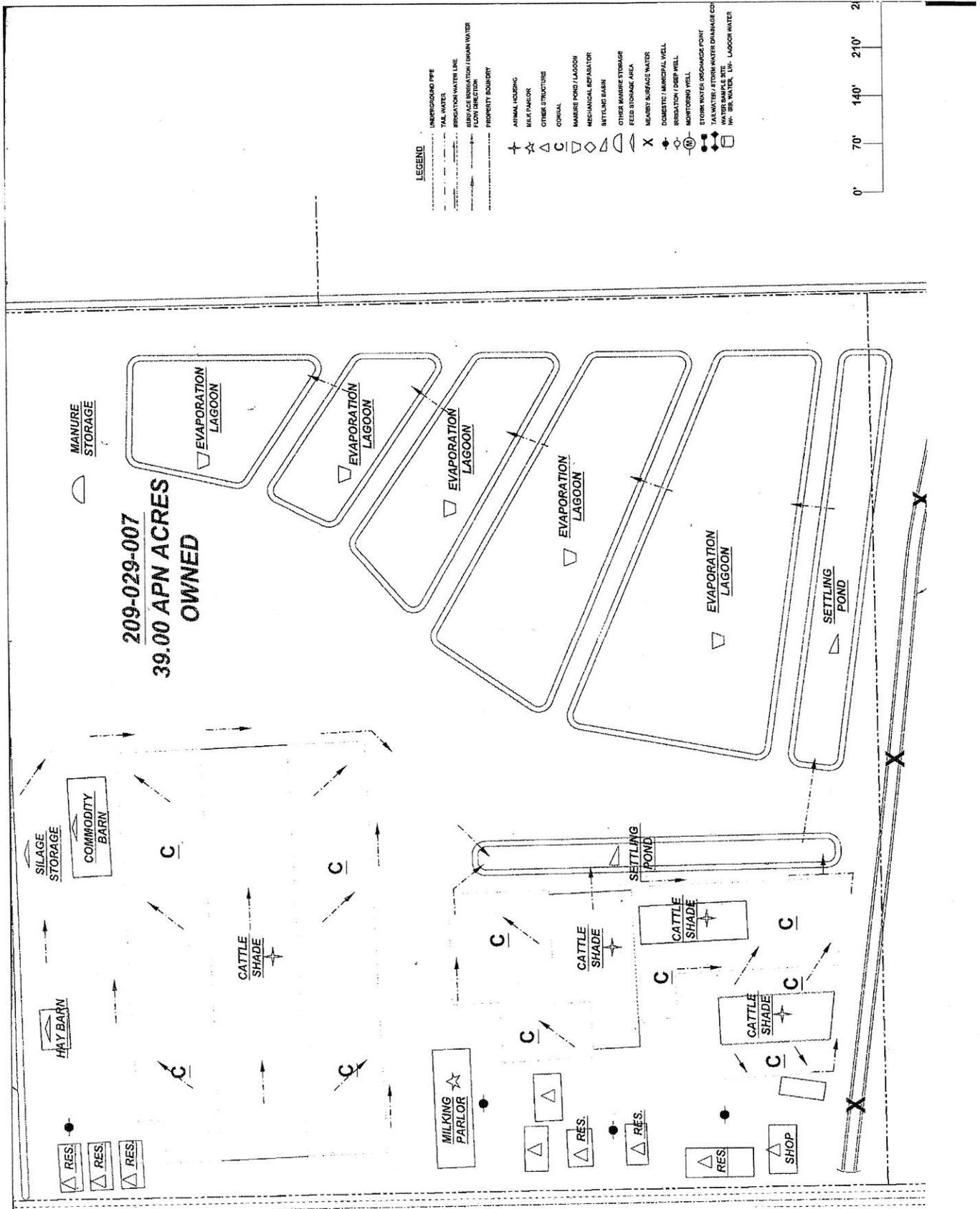
Monitoring Well #1 is located in the southwest corner of the production area and at the time of inspection was in adequate condition (Photo 29).

Monitoring Well #2 is located in the central portion of the production area immediately north of SB1. Significant amounts of solid manure are located on top of and surrounding the well. In previous inspections staff has observed a bobcat deposit slurry manure just northwest of the well (Photos 30-32).

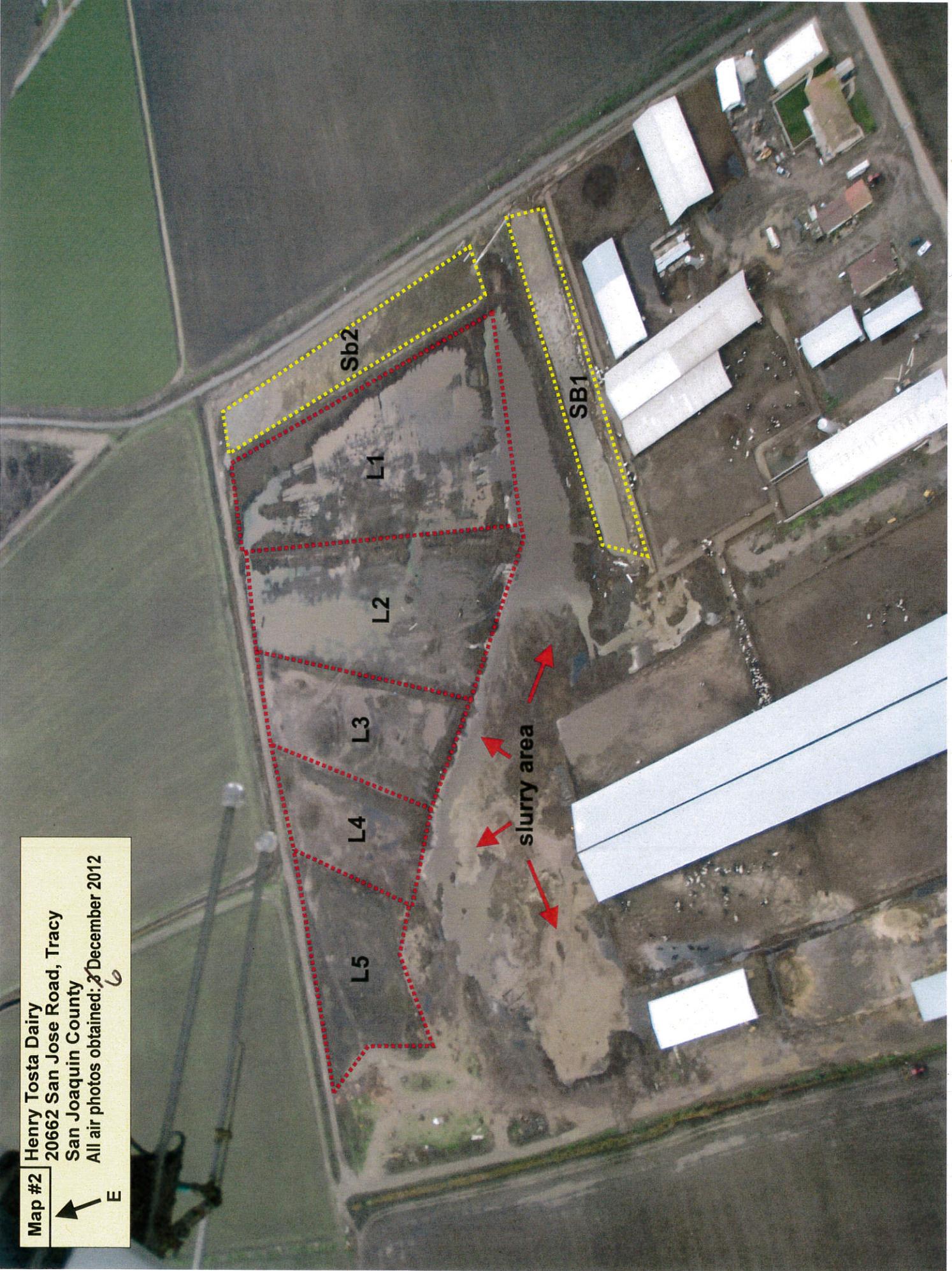
Monitoring Well #3 is located at the northern perimeter of the production area north of the silage pit. At the time of the inspection Monitoring Well #3 was under wastewater with an electrical conductivity = 2200 $\mu\text{s}/\text{cm}$; an ammonia strip indicated ammonia was more than 3.0 ppm (Photos 33-35).

Immediately north of Monitoring Well #3 is a cropland field drain; the drain has the ability to convey water off-property. Field measurements were obtained from the water in the drain: Electrical conductivity = 7000 $\mu\text{s}/\text{cm}$, pH = 7.33, and temperature = 12.2° C. Approximately 100' down-gradient another set of field measurement were obtained: Electrical conductivity = 6900, pH = 7.25, and temperature = 13.2° C.

Map 1: Tosta Dairy IF1b - Production Area Wastewater Map (copied from the Tosta Dairy WMP)



Map #2 Henry Tosta Dairy
20662 San Jose Road, Tracy
San Joaquin County
All air photos obtained: 3 December 2012



Sb2

L1

L2

L3

L4

L5

SB1

slurry area



Photo 1: Looking east down the southern perimeter of the production area. The white pipe conveys storm water from the roof of the barn east down a manure-laden concrete channel to Settling Basin #1. Also water from a corral is supposed to flow east down the same channel to Settling Basin #1. Red arrows indicate how water can flow if the channel backs-up because SB1 is at capacity.



Photo 2: Same as Photo 1 but looking west. Note solid and slurry manure located both inside and outside the conveyance channel.



Photo 3: Looking northeast at the southwest corner of Settling Basin #1.



Photo 4: Looking north at Settling Basin #1. Staff observed wet soil and puddles of wastewater on the eastern embankment of Settling Basin #1 (indicating recent over-topping).



Photo 5: This is not a wastewater lagoon. Looking north at the 3-4 acre slurry area (underwater). It appears to staff that a significant amount of water was pumped from Settling Basin #1 into the 3-4 acre slurry area (now partially underwater). See Photos 6-7 for details.



Photo 6: Looking north at Settling Basin #1 and the 3-4 acre slurry area. It appeared to staff that wastewater was moved from the settling basin to the slurry area.

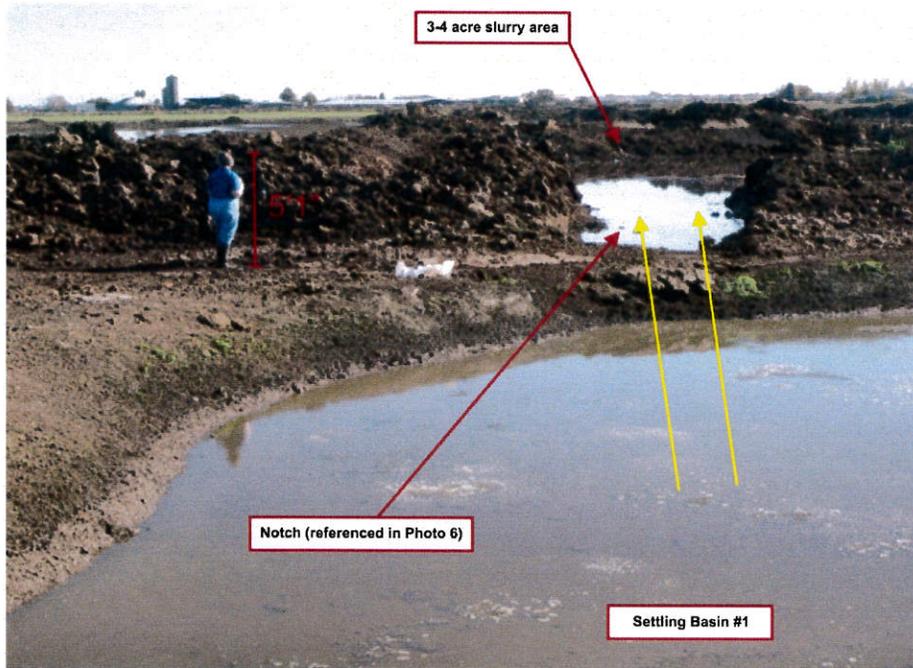


Photo 7: Looking east at the north-end of Settling Basin #1. It appears the large notch was cut and used to transfer water from the settling basin to the 3-4 acre slurry area (see Photo #5 and Photo #6). The yellow arrows indicate how water appears to have moved.



Photo 8: Looking east at the west-end of Settling Basin #2. Staff observed less than one foot of freeboard here.



Photo 9: Looking west at the east-end of Settling Basin #2. Note fresh dirt berm in foreground of photo and ponded water in the center of the photo. Although wastewater is supposed to flow to Wastewater Lagoon #1 via gravity, the conveyance channel is blocked causing the ponding in the photo. It appears as water escapes Settling Basin #2 impromptu berms are erected attempting to control/contain the water.



Photo 10: Looking west at Wastewater Lagoon #1 (L1). A significant amount of solid manure is contained in L1. The eastern embankment of L1 has been constructed with manure (see Photo 11).



Photo 11: Looking southwest at the east end of L1; the eastern embankment has been constructed with manure



Photo 12: Looking west at Wastewater Lagoon #1 (L1). Significant amounts of solid manure and wastewater remain in the lagoon. Wastewater is transferred through a notch cut in the east end of the embankment separating the lagoons – not at the location shown on the WMP map.

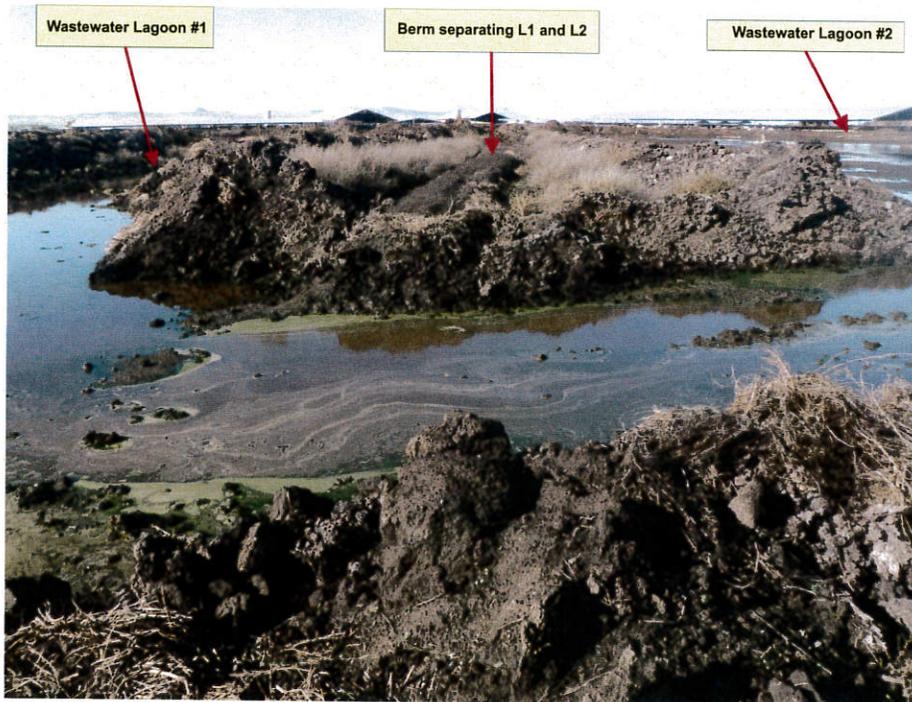


Photo 13: Looking west at Wastewater Lagoon #1 and Wastewater Lagoon #2. Significant amounts of solid manure and wastewater remain in both lagoons. Staff wanted to inspect the berm separating the lagoons for damage but it wasn't accessible at the time of the inspection.

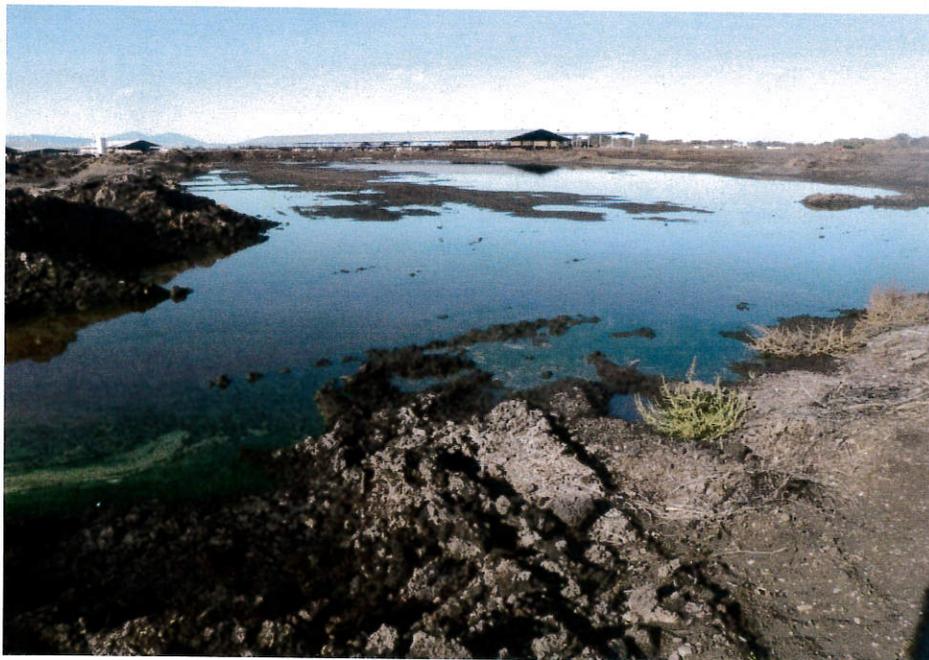


Photo 14: Looking west at Wastewater Lagoon #2. Wastewater and solid manure remain in the lagoon.



Photo 15: Looking west at Wastewater Lagoon #4.

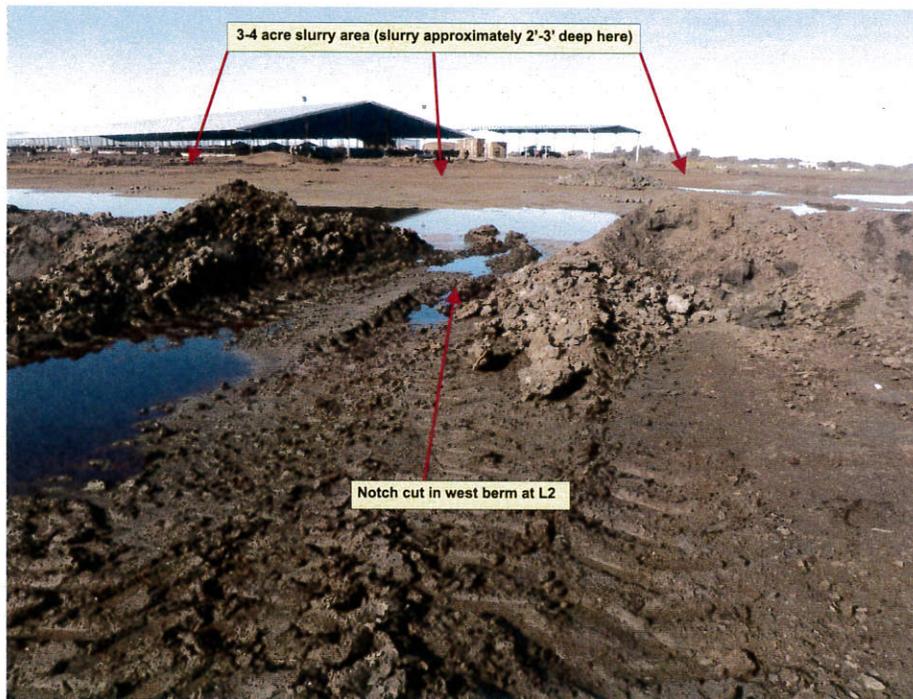


Photo 16: Looking west at the 3-4 acre slurry area that was underwater at the time of the inspection. See Photo 17 for a close-up of the same area. A similar notch was cut into the west berm of L4.

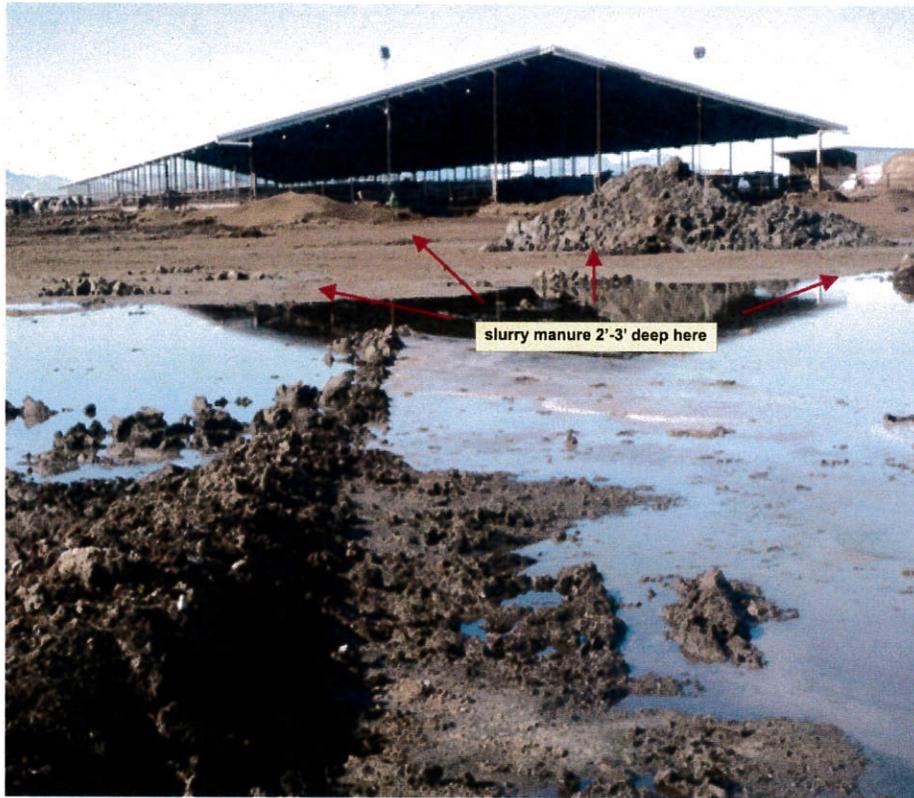


Photo 17: Looking west at the 3-4 acre slurry area.



Photo 18: Looking west at the 3-4 acre slurry area.



Photo 19: Looking west at the eastern portion of the 3-4 acre slurry area. For reference the long barn in the left-hand portion of the photo is the same barn in seen in Photo 18 (center of photo).



Photo 20: Looking southwest at the 3-4 acre slurry area.



Photo 21: Looking southeast at the 3-4 acre slurry area.

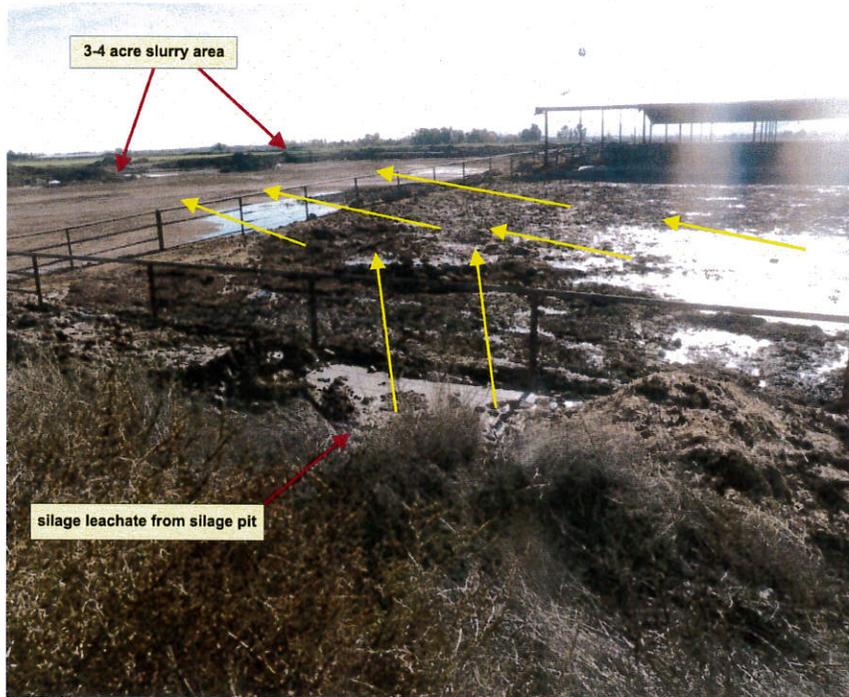


Photo 22: Looking southeast at the corral located on the northern perimeter of the production area; and beyond the corral the 3-4 acre slurry area. Corral run-off and leachate from the silage pit flows through the corral and into the 3-4 acre slurry area; the run-off does not flow to a basin designed to store wastewater. The yellow arrows indicate direction of flow.



Photo 23: Looking east at the earthen channel that conveys silage leachate directly to the corral pictured in Photo 22; the silage leachate appears to ultimately flow directly to the 3-4 acre slurry area after discharging from the corral.



Photo 24: Same corral as seen in Photo 22 and Photo 23.



Photo 25: Looking west down the northern perimeter of the production area. The red arrows indicate how water flowed through the breach in the berm and into the cropland field drain.

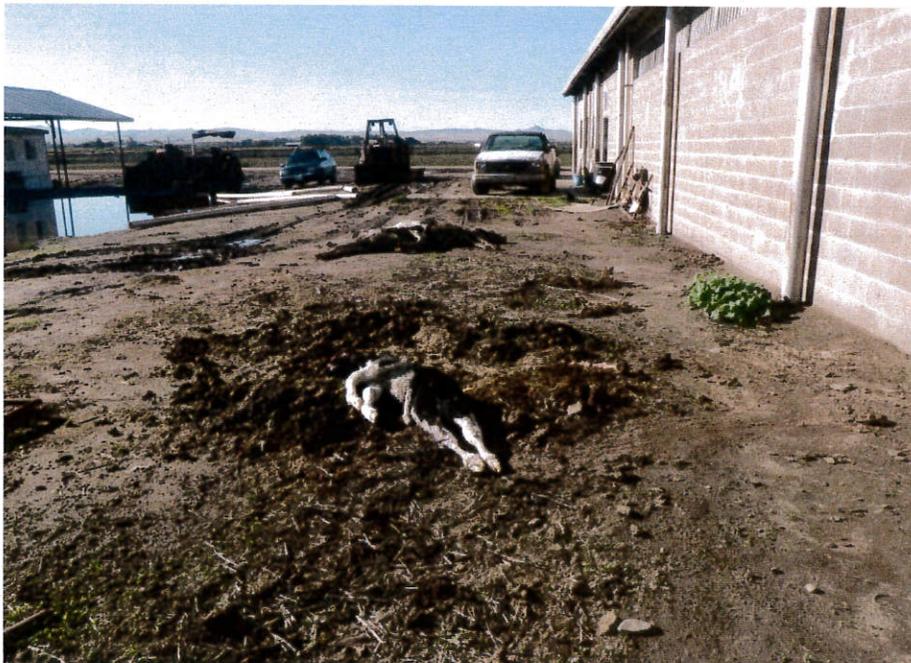


Photo 26: Dead cows adjacent to the Tosta Dairy milk barn.



Photo 27: Dead cows adjacent to the Tosta Dairy milk barn.

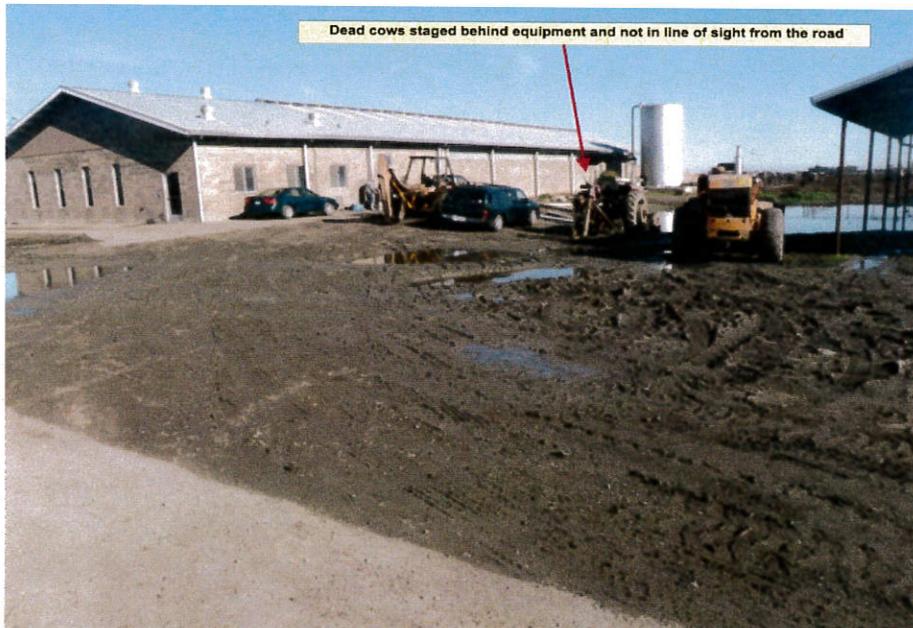


Photo 28: Looking east at the Tosta Dairy milk barn. The dead animals are staged behind the equipment and not in line of sight from the road; it appears to staff these animals are not being staged for rendering.



Photo 29: Looking north at Monitoring Well 1; located at the southwest corner of the production area.



Photo 30: Looking east at Monitoring Well 2; note solid manure surrounding the well. See Photo 31 for a close-up.

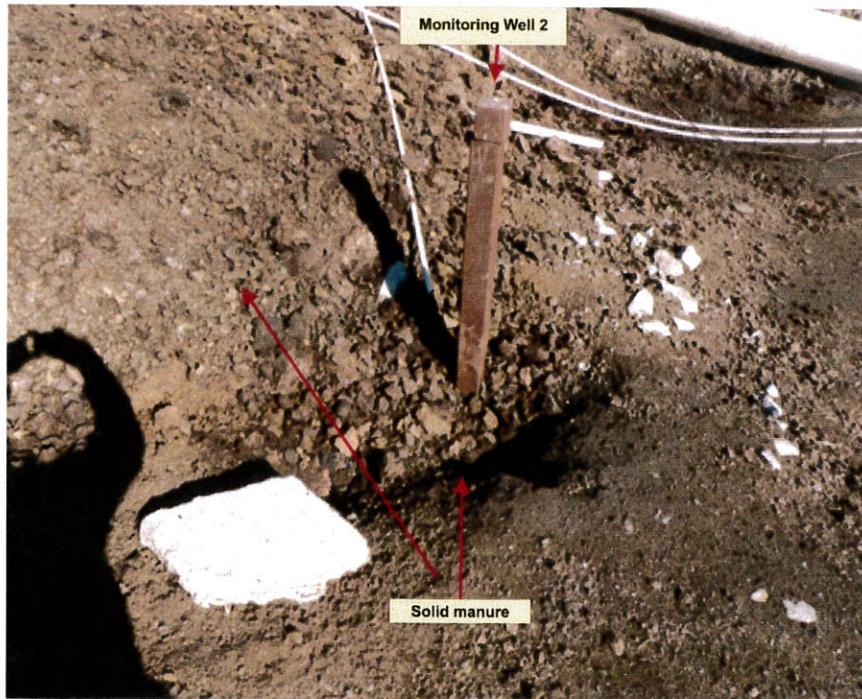


Photo 31: Monitoring Well 2

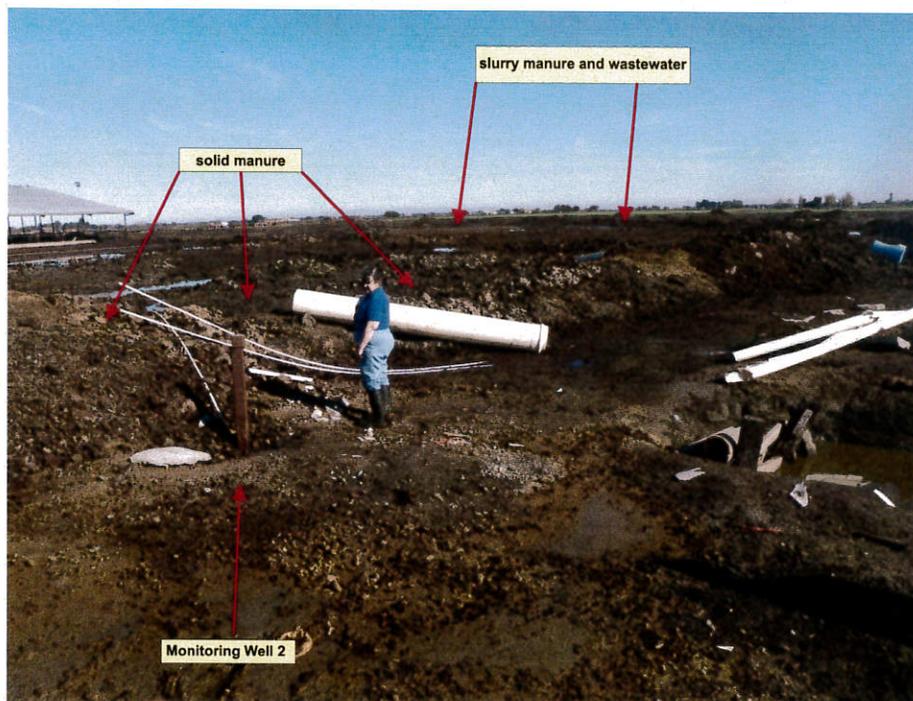


Photo 32: Looking east at Monitoring Well 2 and in the background the 3-4 acre slurry area which contains a significant amount of solid manure, slurry manure, and process wastewater.

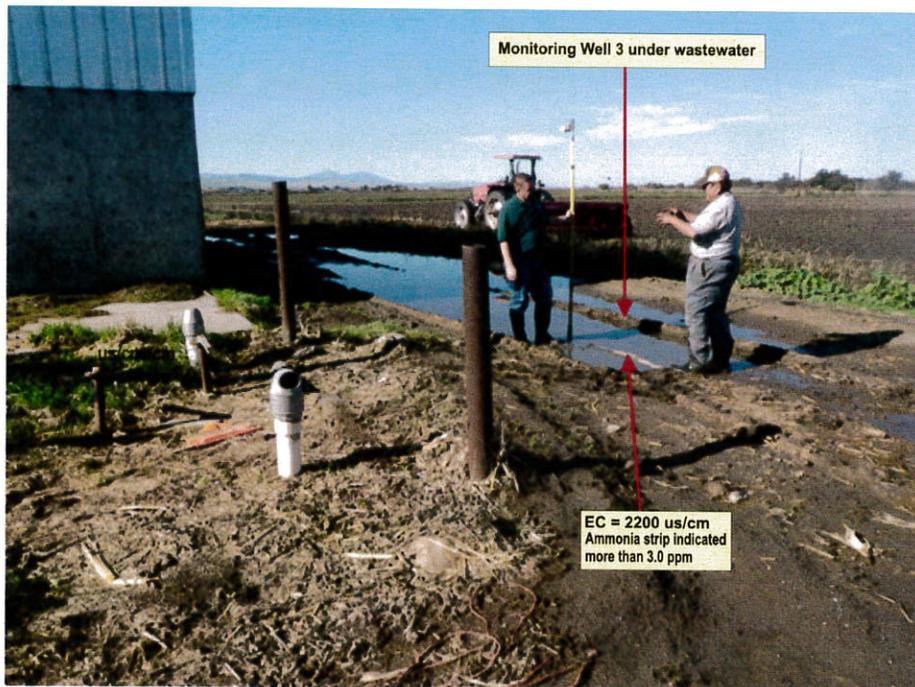


Photo 33: Looking northwest at Monitoring Well #3, which at the time of the inspection was under process wastewater.



Photo 34: Looking east at Monitoring Well 3.



Photo 35: Looking at the slurry manure and wastewater that is covering Monitoring Well 3.