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Hawaii Department of Health

Clean Water Branch

Complaint - ALT Inspection

Inspection Information	
Report Number: HA0271	Inspection Date: 7/1/2014
Time In: 10:00 AM	Time Out: 11:30
Inspection Type: Complaint - ALT	
Inspector(s): Neil Mukai	
Inspector Type: State	Announced: No
Weather Conditions: Sunny with no evidence of recent precipitation	Aerial Map Attached: Yes

Facility Information	
Facility Name: Big Island Dairy (1)	Permit Number: HIU010287
Location: P.O. Box 49 Ookala, Hawaii 96774	Watershed: None
Tax Map Key(s):	
Receiving Water: Photograph#4	
Facility Representative(s): Brad Duff (General Manager)	

Unpermitted Facility Information	
Permit Issue Date:	Permit Expiration Date:
Permit Issued To: Big Island Dairy, LLC	
Administrative Extension Date:	

Narratives

On 6/30/2014 I received a call about smelly brown water flowing down a stream in Ookala. Later that afternoon I went to investigate the complaint. The stream in question had a steady flow of very turbid brown water that was about 2 ft. wide and 0.5 a foot deep and smelled like cow manure. I then tried to pinpoint the source, and following the flow of the stream which led up toward the highway. When I got up to the highway, there was what looked like a massive sprinkler system spraying brown water over a pasture area above the highway and below the Big Island Dairy. Since it looked like a part of the dairy operation and up a private road, I went back to the office to gather more information from the different State branches on what the dairy was allowed to do.

The following day (7/1/2014), I spoke with the Sanitation branch, the Wastewater branch and the enforcement section of the Clean Water branch, which all issue permits to the Big Island Dairy for different areas of their operation. After consulting with the different branches, we

decided to all go out to investigate our branches areas of concerns regarding this complaint. This included: Amy Cook from the Wastewater branch, Eric Honda and Michael Une from the Sanitation branch and myself from the Clean water branch. When we got to the stream the stream's flow was considerably reduced, although there was still a slow steady flow (about 1 ft. wide and 2 to 3 inches deep) of very turbid brown water with a strong manure odor continuing to flow downstream. We then, followed the stream back up to the highway and onto the Big Island dairy property. The massive sprinkler system wasn't in operation, but was still in the pasture area from the day before. As we got to the Big Island Dairy property, the stream's path went through some thick vegetation along the side of the road going up toward the dairy. We followed the road up to the first intersecting dirt road where there was a bridge going over the stream. At that point we stopped to look at the stream, and the stream bed was totally dry. We then continued up the road to the dairy operations and the main office to let them know we were there and to inform them of the complaint. At the main office we spoke to Brad Duff (General Manager) and Riley Smith (Dairy Manager), who stated they were unaware of the situation and wanted to take a look for themselves. We all then went back down to the intersecting road, where there was a heifer shed area above the pasture that contained the water cannon (massive sprinkler system). The heifer shed consisted of a large cement pad with a tin roof and a couple water troughs. One of the water troughs was leaking and had spilt quite a bit of water, which had filled up the waste collection area of the heifer shed and started to overflow. The overflow was flowing across the dirt road toward a vegetated area around a sewage holding tank located at the top border of the pasture. The leaking trough was noticed and quickly repaired. As we drove into the pasture to find the source of the brown water in the stream, we noticed a well-defined flow path with brown water actively flowing from the vegetated area near the sewage holding tank going through the pasture and straight toward the stream. The brown water from the flow path was flowing into the stream and forming a pond about 5 ft. long and the width of the stream about 2.5ft across, and was continuing to flow downstream. Above this pond the stream bed was dry. After looking at the stream we went to look at the area around the water cannon (sprinkler type system), which I observed spraying the day before. The ground around the water cannon was dry for the most part, although there was evidence of recent erosion on some of the downslope areas leading toward the flow path.

After inspecting the pasture and stream area we spoke to Mr. Duff and Mr. Smith, to inform them of what we observed and to get some information on their waste disposal methods and the use of their water cannon. According to Mr. Duff, the dairy consists of the milking area and the heifer sheds and has about 1,500 heifers with a little over 1,000 being milked. The sewage from the milking area is hard piped to lagoons where the waste is separated; the liquid gets pumped to the water cannons to be spread over the pastures and the solids which is called a slurry is pumped into a honey wagon and spread over the land as well. The use of the water cannons depends on the weather and the level of saturation of the soil, with the frequency being about every day to every other day for between 4 to 6 hours. In general they run it for 4 hours and check for ponding and rotate it to another location when necessary. The sewage from the heifer sheds is stored in the sewage holding tank then pumped into the honey wagon and spread over the land. When we left the trough had stopped leaking, although the waste area of the heifer sheds was still slightly overflowing.

The next day Eric Honda and Michael Une from the Sanitation Branch went back to the dairy to see if the brown water was still flowing down the well-defined flow path, while on their way to another inspection. According to them, the waste area of the heifer shed had been cleaned up and wasn't overflowing. Although the brown water was still flowing from the vegetated area around the sewage holding tank, down the well-defined flow path and continuing to enter the stream. They spoke to Mr. Duff and Mr. Smith and took a few more photo for documentation. (Refer to Attachment#1 for photos)

Photographs



Photograph#1-This is a photo of the brown turbid smelly water flowing in the stream in the Ookala town and residential area where the complaint originated from.



Photograph#2- This is another photo of the brown turbid smelly water flowing in the stream in the same Ookala area.



Photograph#3- This is a photo of a pond of brown turbid smelly water flowing in the stream in the same Ookala area.



Photograph#4-This is a photo of the brown turbid smelly water in the stream from the highway.(This photo is sideways with the bottom of the photo being on the left.



Photograph#5-This is a photo of the dry stream bed from the bridge at the dirt road intersection leading up to the dairy.



Photograph#6- This is a photo of the heifer shed with the waste area overflowing and spilling onto the dirt road.



Photograph#7- This is another photo of the overflow spilling onto the dirt road.



Photograph#8- This is a photo of the sewage holding tank located across the dirt road from the heifer shed and on the top border to the pasture area containing the water cannon.



Photograph#9- This is a photo of the well-defined flow path coming from the vegetated area around the sewage holding tank.



Photograph#10- This is a photo of the same well-defined flow path, but located down slope from the water cannon.



Photograph#11- This is another photo of the well-defined flow path downslope of the water cannon.



Photograph#12- This is another photo of the well-defined flow path downslope of the water cannon, with the stream located at the tree line.



Photograph#13- This is photo of the brown sewage water entering the stream, with the stream bed above the enter point being dry.



Photograph#14- This is another photo of the brown sewage water in the stream, with the sewage water entering from the left side of the photo and continuing to flow downstream toward the left .



Photograph#15- This is a photo of the water cannon.



Photograph#16- This is a photo of an erosion channel downslope of the water cannon.



Photograph#17- This is a photo showing the depth of the erosion channel.




Photograph#18 This is a photo of the area below the water cannon, leading toward the well-defined flow path.

Violations

Violation Type	Comment
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Signatures

<input checked="" type="checkbox"/>	I certify that the statements made in this inspection report are, to the best of my knowledge, a true and accurate representation of what was observed on at P.O. Box 49 Ookala, Hawaii 96774.
<input checked="" type="checkbox"/>	I certify that the attached photos described above were taken by the undersigned and are a true, accurate, and unaltered representation of what was observed on at P.O. Box 49 Ookala, Hawaii 96774.
	<u>7/25/2014</u>
	Date

Attachment#1 (These photos were taken by Eric Honda and Michael Une on 7/2/2014)

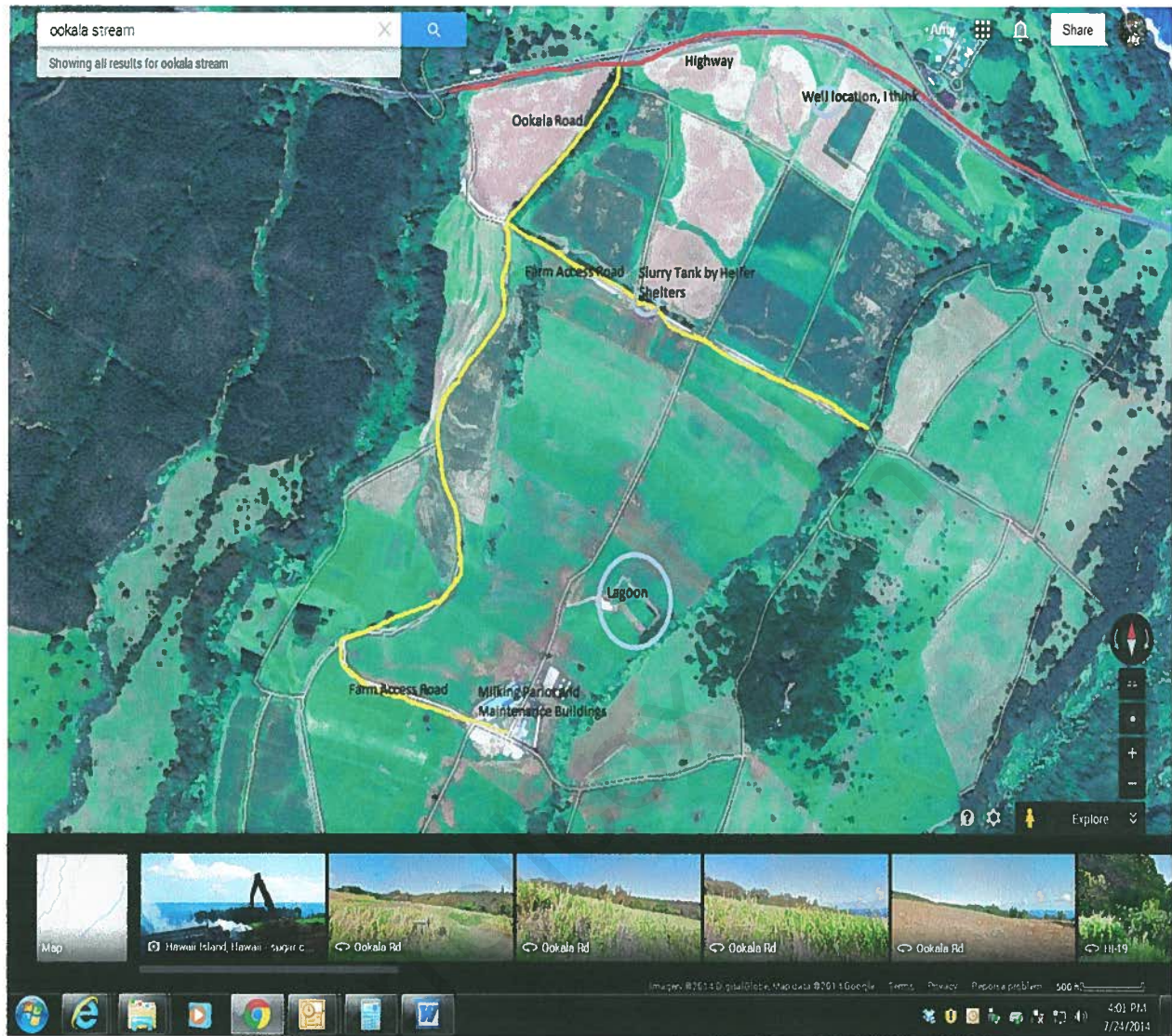






Carrollco

Attachment#2(This is an overview of the dairy from Google earth)



The well-defined flow path starts in the area near the slurry tank by the heifer shelters, then flows down in between the light brown and dark green parcels, then flows left in between the 2 large and medium dark green parcels toward the Ookala road, and then down toward the highway with the stream flow along the side of the Ookala road. The water cannon was located near the middle of the light brown area directly below the heifer shelter.