

Site Name: Big Island Dairy File No.: HIU010287

EXHIBIT B

Hawaii Department of Health Clean Water Branch Complaint Inspection Report

On May 2, 2018, the Department of Health (DOH), Clean Water Branch (CWB) (hereinafter, DOH-CWB) conducted an inspection of Big Island Dairy (Dairy) located at 39-3261 Hawaii Belt Road, Ookala, Hawaii 96720; TMK: (3) 9-0-020:080. The inspection was conducted as part of ongoing enforcement oversight of the Dairy as well as in response to a wastewater spill to Alaialoa Gulch during wastewater incorporation activities. Based on observations from the inspection, the DOH-CWB finds that the Dairy discharged wastewater from its incorporation activities on April 13, 2018. Further, the DOH-CWB identified additional areas where the Dairy had a high risk for polluted discharges. These areas included the Dairy's pasture areas, well overflow area, and the wastewater lagoons. This inspection report identifies observations and findings noted by the inspector. An annotated photograph log is included as part of this report and referenced as applicable.

Site Information

Site Address: 39-3261 Hawaii Belt Road, Ookala, Hawaii 96720

File Number: HIU010287

Receiving Water(s): Kaohaoha Gulch, Alaialoa Gulch, Kaula Gulch

Inspection Information

Inspection Date: May 2, 2018 Weather: Overcast with light rain; light winds

Inspection Report Number: HA0295 Announced: No

TMK: (3) 9-0-020:080

Inspection Team: Steven Chase, Matthew Kurano, and Neil Mukai of the DOH- CWB

Site Representative and Title: Steven Manning (General Manager; Big Island Dairy), Jake

Mecham (Manager; Big Island Dairy)



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Introduction

TMK: (3) 9-0-020:080 (hereinafter, Site) (refer to Image 1 and Image 2) is an agricultural lot located on the island of Hawaii, south of the town of Ookala. The property has been in operation as a dairy farm since the early 2000's. It is currently owned by Mr. Derek Whitesides and Mr. Steve Whitesides per an October 5, 2011 business registration with the State of Hawaii, Department of Commerce and Consumer Affairs. The Dairy has been in the process of putting a new management team in place since the beginning of 2018. The current management team is comprised of Jake Mecham (Manager; Big Island Dairy) and Steven Manning (General Manager; Big Island Dairy).

The size and scope of the Dairy remains the same as has been documented in a past DOH-CWB inspection report, Inspection Report No. HA0289. The goal of this inspection was to follow up on compliance items from the previous two inspections conducted by the DOH-CWB, Inspection Report Nos. HA0290 and HA0291. Additionally, the DOH-CWB was investigating a spill reported by Big Island Dairy on April 13, 2018 of a wastewater discharge of approximately 200 gallons to Alaialoa Gulch during incorporation of wastewater in the field designated as "Field 1A" (refer to, Image 2). The inspection consisted of an interview portion with site representatives and a site inspection focusing on the creamery, upper pasture area, composter/wastewater sump, well water overflow area, wastewater lagoons, field 1A and Alaialoa Gulch.

Findings

The following findings were made either before, during, or after inspection of the Dairy. The findings are not a comprehensive list of all possible areas of non-compliance with Hawaii Water Pollution rules and regulations.

- 1. On May 2, 2018 at approximately 10:30 AM, Matthew Kurano, Neil Mukai and I, Steven Chase (hereinafter, Inspection Team) arrived at Big Island Dairy in Ookala. The Inspection Team entered the main office wearing our credentials and asked to speak with management. J. Mecham and S. Manning arrived shortly after and introduced themselves as the management team, the Inspection Team presented their credentials and informed J. Mecham and S. Manning that we were conducting an inspection and would need several hours of their time.
- 2. Site Representatives escorted the Inspection Team to a conference room for the interview portion of the inspection. The following information was provided during the interview that was led by M. Kurano:
 - a. M. Kurano asked the Site Representatives to describe the spill that occurred on April 13, 2018. J. Mecham stated that Dairy staff were conducting wastewater



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incorporation activities on "Field 1A" (refer to, Image 2) beginning at approximately 10:00 AM on the morning of April 13, 2018.

- b. J. Mecham stated that he became aware of the ongoing discharge at approximately 11:55 AM when the tractor operator notified him that run off was occurring at the bottom of the field and running along the swale towards Alaialoa Gulch. According to J. Mecham, the tractor operator stopped incorporation activities immediately, notified J. Mecham and began building a berm to contain the wastewater with in the field.
- c. J. Mecham stated that he inspected Alaialoa Gulch immediately and estimated approximately 200 gallons had entered the gulch. J. Mecham stated that at the time of the spill, Alaialoa Gulch was not flowing and the wastewater was contained in small puddles within the gulch. DOH-CWB records show that J. Mecham notified the DOH-CWB of the spill on the afternoon of April 13, 2018.
- d. J. Mecham and S. Manning stated that they believed the reason the spill occurred was because the tractor the Dairy normally uses to incorporate was out of service thus they used a smaller tractor than normal and was not able to run at the same speed as the larger tractor causing the wastewater to surface and flow. Site Representatives state that the larger, normal tractor for incorporation, has since been fixed. In response to the spill, managers stated that the Dairy has implemented a policy to have a spotter stationed downhill during all incorporation activities. Additionally, J. Mecham inspects Alaialoa Gulch daily for evidence of discharges.
- e. J. Mecham stated that this was the first time that Field 1A has had the incorporator used on it and as such the Dairy had no previous experience to inform appropriate flow rates for Field 1A. Field 1A has not been watered since the spill and is scheduled to become a test field that will not have any more wastewater incorporated.
- f. J. Mecham and S. Manning both stated the Dairy is in discussions with various agriculture experts on watering techniques and are moving towards data driven farming. They are also in discussions about ways to limit storm water entering the wastewater lagoons to effectively increase capacity for wastewater.
- g. In following up on findings from the previous inspection reports noted above J. Mecham and S. Manning stated that going forward, the entire property will only grow feed grass and no other crops were onsite. This was confirmed by the Inspection Team during the site walk that all fields on site were established with grass and no other crops were being grown. (refer to, Photographs 13 & 14).



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- h. M. Kurano inquired about the status of the creamery and associated wastewater system. S. Manning stated that the creamery was operational but not operating as it was awaiting final permits and approval.
- i. J. Mecham stated that the well water was still overflowing in to Kaohaoha Gulch but they have removed cattle from the penned area noted in inspection HA0291 to limit contact of well water with cattle. Further, S. Manning stated that the Dairy has designs to change the structure to prevent it from entering the gulch. M. Kurano asked why well water was still overflowing as the Dairy had previously stated that the overflows would be terminated. S. Manning responded that there were no local services able to complete the project but that the project to terminate well water overflows would be completed as soon as possible.
- j. Regarding the ongoing odor issues from the residents of Ookala, J. Mecham and S. Manning said they have been working to locate the source of the odor and develop a mitigation plan. They have installed a wooden wind break around the wastewater sump and are investigating a vegetated wind break as a permanent solution. During the inspection, objectionable odors were noted in two locations. The first location was at the wastewater sump and the second location was at the wastewater inlet to the wastewater lagoon. The sources of the odors were likely the agitation of the wastewater at both locations (Photographs 9 & 11).
- k. A draft copy of DOH comments regarding the Dairy's Comprehensive Nutrient Management Plan (CNMP) was provided to J. Mecham and S. Manning. Facility Representatives were advised to review the comments and provided responses to the DOH-CWB.
- The interview portion of the inspection concluded at approximately 12:00 PM.
 The Inspection Team and Site Representatives departed the office and split in to two vehicles for the site inspection focusing on the following areas: creamery, upper pasture area, composter/wastewater sump, well overflow area, wastewater lagoons, field 1A and Alaialoa Gulch.
- 3. The Inspection Team and Site Representatives proceeded to the creamery and dedicated wastewater system. I observed that the creamery was not in operation, the wastewater system was in recirculation mode and no discharge was occurring (refer to, Photographs 1 & 2).
- 4. The inspection continued at the upper pasture area. Upon arriving at the top of the Dairy, I saw a large pasture area that showed no vegetation due to heavy rains and cattle activities. No run off was visible at the time but the condition of the pasture presented a high



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potential to discharge sediment during storm events (refer to, Photograph 3 & 4).

J. Mecham said that the area was completely covered in grass prior to the heavy rains over the last several months. J. Mecham stated they would start reducing the number of cattle in this pasture in the next several weeks and that pasture management would be improved.

- 5. The Inspection Team and Site Representatives then departed the upper pasture for the well overflow location. Upon arriving I saw a clear flow path and evidence of erosion from the water storage tank heading across a racetrack that drained to Kaohaoha Gulch. This was the same location that previously held cattle as noted in inspection HA0291. J. Mecham said now this area was only used as a pass through to move cattle from one pasture to another. The Dairy has been looking to hire a plumber to replumb the well water tanks which would eliminate this erosion problem but has not been able to secure a local plumber.
- 6. The inspection then continued at the composter/wastewater sump. Upon parking and exiting the vehicle, an objectionable odor was immediately apparent and got stronger as I moved towards the wastewater sump. J. Mecham stated that they had installed several sheets of plywood to act as windbreaks and were investigating a perimeter of aromatic bushes.
- 7. No evidence of a recent spill or wastewater discharge was observed in the area of the wastewater sump. S. Manning and J. Mecham both confirmed that the basin is designed to overflow in to a bypass vault that is plumbed directly to the wastewater lagoons. In the event that the wastewater was to exit the sump and flow via the ground the wastewater would drain to Kaohaoha Gulch (refer to, Photographs 11 & 12).
- 8. The Inspection Team and Site Representatives then drove to the wastewater lagoons. Upon arriving at the main wastewater lagoon, I saw a tractor and large pump. S. Manning said they had been incorporating earlier in the day but were forced to stop because the ground was already saturated from recent rain events (refer to, Photograph 7).
- 9. Upon arriving at the spillway on the southeast end of the lagoon I saw that the lagoon had approximately six (6) inches of freeboard (refer to, Photograph 8). I stated concern about the level of freeboard in the lagoon. S. Manning and J. Mecham stated that incorporation activities had been limited due to weather but the Dairy had been incorporating when able and when the weather is dry draw down of wastewater could occur relatively quickly.
- 10. Upon inspecting the spillway, I did not witness any evidence of recent discharge from the wastewater lagoon and the spillway appeared to be in working condition (refer to, Photographs 9 & 10).



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- 11. As I approached the inflow pipe on the south side of the wastewater lagoon, a strong odor was noticeable in the low-lying area near the inflow pipe for the wastewater lagoon (refer to, Photograph 9).
- 12. The inspection then continued at "field 1A" where the spill of wastewater occurred on April 13, 2018. Upon arriving at field 1A I saw a large berm that appeared to have been recently put in place at the low point in the field (refer to, Photograph 16 & 17).
- 13. J. Mecham explained to the Inspection Team that the incorporator had been working at the top of field 1A. The wastewater was incorporated but had flowed subsurface and subsequently resurfaced down gradient from the incorporator. As a result, the operator had not noticed until the wastewater was already flowing in the swale at the bottom of the field that a discharge was occurring.
- 14. J. Mecham explained to me that the wastewater had flowed along the swale at the bottom of field 1A, across the road way and subsequently down the hillside into Alaialoa Gulch (refer to, Photographs 15-18).
- 15. I did not observe any evidence of wastewater in field 1A, on the road or in Alaialoa Gulch at the time of the inspection.
- 16. The Inspection Team and J. Mecham then drove to the access road for Kaohaoha Gulch near the area deemed the "air strip". J. Mecham stated he regularly inspected the Gulch for evidence of discharge and had not witnessed any in his tenure at the Dairy.
- 17. Upon entering Kaohaoha Gulch, I witnessed several standing pools of water that contained some suspended solids but were generally clear. The river bed was visible in most areas. I did not see any evidence of bedding, feed or wastewater in the Gulch. None of the odors noted earlier in the inspection, near the wastewater sump and inflow to the wastewater lagoon, were present in Kaohaoha Gulch.
- 18. The inspection concluded at approximately 1:30 PM and the Inspection Team and Site Representatives met back in the conference room to conduct a closing conference to discuss preliminary findings.
- 19. At the closing conference M. Kurano notified Site Representatives that the upper pasture presented a high risk of discharging pollutants to State waters. It was recommended that Best Management Practices (BMPs) be implemented and a pasture management plan be developed. It was confirmed that all crops had been switched to grass from corn and other crops were no longer being grown on site (refer to, Photographs 13 & 14).



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- 20. Similarly, it was recommended that BMPs be implemented by the Dairy at the well water overflow location to prevent sediment from discharging to State waters until a plumber can be hired to re-route overflow water.
- 21. It was noted that strong noxious odors were observed in discrete locations. Specifically, the aeration basin and the inflow to the wastewater lagoon. S. Manning stated that the Dairy is looking at odor control options and seeking professional advice.
- 22. Site Representatives showed a desire and willingness to address all concerns raised by the DOH-CWB and the community. The closing conference concluded at approximately 2:00 PM and the Inspection Team departed the Dairy.

Complaint Inspection Report Figure Log

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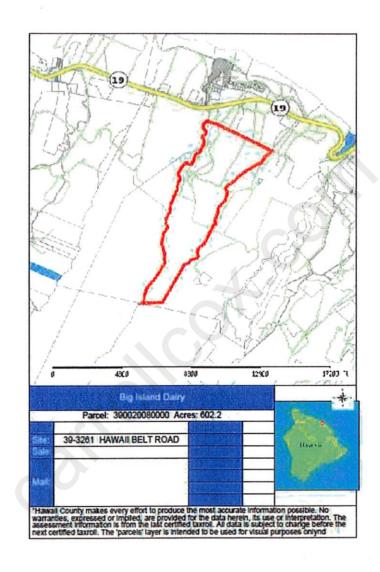


Image 1: Aerial view of Big Island Dairy TMK: (3) 9-0-020:080 (outlined in red) at 39-3261 Hawaii Belt Road Ookala, HI 96720. Imagery obtained from County of Hawaii Reaal Property Tax Office.

Figure Log

Site Name: Big Island Dairy

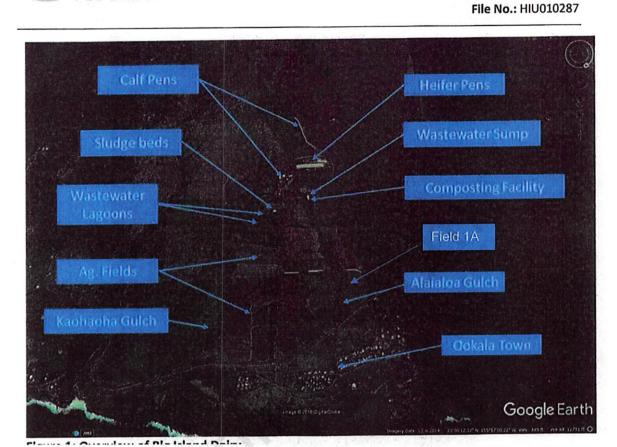


Image 2: Aerial view of Big Island Dairy and call outs for associated process areas, gulch locations and Ookala Town.

Complaint Inspection Report Photograph Log

Site Name: Big Island Dairy File No.: HIU010287





Photograph 1.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, inside of the creamery, no operations were taking place at the time of the inspection and no evidence of recent or impending operation.



Photograph 2.

Date Photograph Taken: May 2, 2018

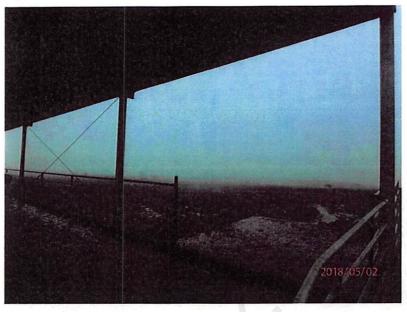
By: Steven Chase

Description: View, inside creamery wastewater treatment system. Treatment system was in recirculation mode and no discharge was occuring.

Photograph Log

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Photograph 3.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing north, of the upper pasture area that has experienced heavy rains and grazing. Run off is not visible but presented a high potential for sediment to be transported off site.



Photograph 4.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: Close up view, facing north, of earth disturbance in uppper pasture area. Vegetation can be seen on the outskirts of the pasture area but no vegetation existed with in the enclosure.

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Photograph 5.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View of water tank, water overflows via a white PVC pipe not in the picture and then flows over the ground and subsequently flows to Kaohaoha Gulch.



Photograph 6.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing east, of flow path from well water tank overflow headed towards Kaohaoha Gulch. Red arrow points in direction of flow.

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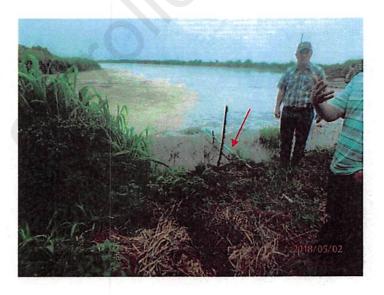


Photograph 7.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing east, of wastewater lagoon and tractor used to pump wastewater for incorporating activities.



Photograph 8.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing northwest, standing on the spillway for the main wastewater lagoon. Red arrow points to the marker measuring remaining free board in the lagoon. Approximately six (6) inches of free board existed at the time of inspecition.

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Photograph 9.

Date Photograph Taken: may 2, 2018

By: Steven Chase

Description: View, facing south, of spillway. Red arrow points in direction of potential flow and yellow arrow points to inflow location where signficant sewage odors were noticeable.



Photograph 10.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing southeast, of the spillway for the wastewater lagoon. Red arrow points in the direction of potential flow. No evidence of recenet discharge was seen.

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Photograph 11.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing east, of the wastewater sump. Plywood has been erected to create a wind break. Strong odors in the area were strongest near the basin. Basin was in good operating condition at time of inspection.



Photograph 12.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, east, of overflow path from wastewater sump Towards Kaohaoha Gulch. No evidence of an overflow was present. Yellow arrow shows approximate potential flow path.

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Photograph 13.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing south, of established grass fields. All other crops have been removed from the Dairy.



Photograph 14.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing north, of established guinea grass. All other crops have been removed from the Dairy.

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Photograph 15.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing southwest, of Field 1A where the spill of lagoon wastewater occurred on April 13, 2018. Red arrow shows approximate flow path eastward toward Alaialoa Gulch.



Photograph 16.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing southwest, in line with the spill flow path of the berm (yellow arrow) constructed by the Dairy to contain spilled wastewater. Note, ponded water in picture is storm water.

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Photograph 17.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View, facing northeast, of berm (yellow arrow) and flow path (red arrow) towards Alaialoa Gulch.



Photograph 18.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View of where spilled wastewater flowed in to Alaialoa Gulch. No evidence of erosion or ponding. Red arrow shows approximate area wastewater flowed in to Alaialoa Gulch.

Complaint Inspection Report Photograph Log

Site Name: Big Island Dairy

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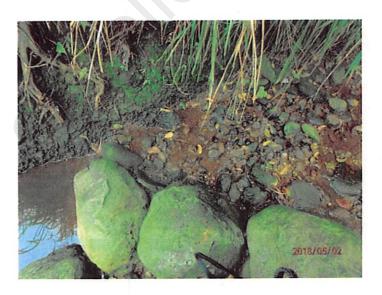


Photograph 19.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: View looking upstream of Kaohaoha Gulch. No bedding, feed or wastewater was present in the gulch. Strong odors were not present in the gulch either.



Photograph 20.

Date Photograph Taken: May 2, 2018

By: Steven Chase

Description: Close up view of ponded water in Kaohaoha Gulch. River bed generally visible through ponded water and no evidence of recent discharge was observed.



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Inspection Report Certification

I certify that the attached photographs 1 through 20 described above were taken by the undersigned and are a true and accurate representation of what was observed on 5/2/2018 at Big Island Dairy, 39-3261 Hawaii Belt Road, HI 96720

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 5/2/2018 at Big Island Dairy, 39-3261 Hawaii Belt Road, HI 96720

Steven Chase

Environmental Health Specialist

Date