

February 22, 2015

Ms. Laura Mc Intyre  
Environmental Planning Officer  
State of Hawaii, Department of Health  
919 Ala Moana Boulevard, Room 312  
Honolulu, HI 96814

cc: Hawaii Dairy Farms  
c/o Jeff Overton, Principal Planner  
Group 70 International, Inc.  
925 Bethel Street, Fifth Floor  
Honolulu, HI 96813

Dear Colleagues:

I am writing to comment on Hawaii Dairy Farms (HDF) Environmental Impact Statement Preparation Notice (EISPN) which was published in The Environmental Notice on January 23, 2015. By way of this letter, I am requesting to be a consulted party in the applicant's EIS process, and I request that Hawaii Dairy Farms address the following areas in the scope of its EIS.

### **Figure 1.1 Project Location Map**

Please show perimeter of the proposed farm and perimeters/ points of the following neighborhoods/locations: Mahaulepu Beach, Gillen Cottage, Kawailoa Bay, Grand Hyatt Hotel, Poipu Bay Golf Course, Poipu Kai Resort, The Point at Poipu, Makahuena, Poipu Aina, WeliWeli Tract, Kiahuna Golf Village, Koloa Town, Poipu Beach Park, Poipu Gateway Village (proposed). Please compute the distance from the proposed farm perimeter to perimeters and centers of neighborhoods/ locations listed above. In another map, please show the outline of the proposed farm and listed neighborhoods and "impact rings" at 1mile, 2miles, 3 miles and 5 miles from the proposed farm center and from the proposed farm perimeter.

### **2.1 Purpose and Need for Action**

#### ***"Clean, cost-effective, and sustainable method"***

The applicant should provide evidence and supporting documentation for concluding that the proposed action is "clean, cost effective and sustainable." What criteria are being used to make these statements and how does the proposed action measure up against selected criteria?

### ***“Suitable soils”***

According to the National Resource Conversation Service Custom Soil Resource Report for Island of Kauai dated June 2014, the soils on the proposed site are very limited in their ability to support an animal waste operation. **“Poor performance and high maintenance should be expected.”** The applicant must address the soil properties of the site and discuss the limitations of the soils with respect to absorption, saturation rate, ponding and standing water of each soil type encountered on the farm, and address the probability of storm water runoff. Further, the applicant should address why, given the poor characteristics of the soils, this location was selected. How does the applicant intend to prevent storm runoff from reaching streams and the ocean?

### **2.3 Proposed Action**

#### ***“Grass –fed”***

What are the USDA requirements for a dairy to be considered “grass fed”? Please demonstrate how HDF meets these standards.

#### ***“Locally available nutritious milk”***

What local entity will process the milk? Where is the facility located, and what agreements are in place to ensure that Kauai milk is returned to Kauai? How long is the duration of proposed processing agreements? How much milk (Hawaii produced and imported) is currently available today, and how much is really needed over the next 5 years?

#### ***“Zero- point source discharge, meaning 100% of the cow’s manure will remain on the farm as fertilizer for the pasture grass”***

Please discuss how much manure and urine is deposited by each cow each day, and how much is deposited by 699 cows and by 2000 cows at full scale production. Please provide the total amount of manure and urine left in each active grazing paddock. How many paddocks are in use each day for 699 cows and for 2000 cows?

Please describe how and when manure becomes available for nutrient uptake for grass, and what happens when excess manure remains on pasture grass. Given that most of the grazing paddocks are on soils that do not drain, please describe what will happen in sudden rain events which are typical for this area. Please assess how much rain can fall in what period of time before the poor soils are saturated and excess water runs into ditches, streams and ocean.

Please describe how and when the grazing paddocks will be fertilized. Describe how frequently liquid effluent, solid sludge, and direct manure will be applied to the grazing paddocks, and in what proportions. Please explain what chemical fertilizers, in addition to manure and effluent, will be applied to grasses and in what form: sprayed, granular, other??

Please provide a detailed description of the equipment that will be used to apply effluent, and how equipment operates in a variety of wind conditions. How far will effluent spray travel over a variety of typical scenarios for the region: 15-20 mph trade winds, 2-5mph variable winds, 20-25mph kona winds., among others. How will effluent spray be contained?

The County of Kauai General Plan states that non-point discharges have greater impact on streams and waters than point source discharges. Please describe how the farm's activities are not contrary to the Hawaii Coastal Non-Point Pollution Control Management Plan (1996)

***“Field trials of kikuyu varieties . . . by horticultural experts”***

Please provide results of grass trials. What are criteria for success? Who are the horticultural experts? Please provide their backgrounds and levels of expertise to perform the analysis of the grass.

***“Waste Management Plan reviewed by DOH”***

What are the EPA's specific requirements used by DOH to review the waste management plan? The draft EIS must address full scale production at 2000 cow level, not just 699 cows.

***“Establish herd . . . over several years”***

What specific criteria will be used to increase herd size? Where is specific location of local ranching partners' acreage? How many offsite locations will be utilized? How many heifers, non-milking cows, calves, and bulls will be moved off site, and what is expected distribution of animals by type? At full production of 2000 cows, on average how many offsite animals will there be? How will their nutritional and water needs be met? Please describe average density of off-site animal plan relative to acreage available from local ranching partners.

## **2.4 Alternatives**

### **No Action Alternative**

The Kauai County General Plan, which is intended to improve the physical environment of the County and the health, safety, and general welfare of Kauai's people, states that one key goal is to preserve Kauai's rural character by promoting and preserving **“open agricultural lands as a key element of Kauai's character, essential to its image as “The Garden Island” and to the continued viability and development of Kauai's visitor industry.** “ In addition, the General Plan seeks **“to develop revenue producing uses that are sensitive to the area's unique qualities.”**

The proposed industrial dairy is in direct conflict with the Kauai County General Plan because it creates significant adverse impacts to the adjacent established resort neighborhood and which risk the viability and continued growth of Kauai's major visitor industry already in place on the South Shore. The applicant should address how the size and scope of a 2000 head dairy will add to the continued viability and development of Kauai's visitor industry.

Our landscapes attract visitors from around the world and have economic value. The South Shore of Kauai has many unique geographic qualities, including world famous Poipu Beach, the lithified cliffs along the Mahaulepu Trail, the Makauwahi Cave, just to name a few. The applicant should address how these unique features will be protected from harm.

### **Alternative Dairy Location**

The applicant states that required location criteria include suitable soils, 500-600 acres of usable gently sloped land, reasonably priced water, roadway access, potable water, and irrigation water.

The plan should detail what other sites across Hawaii were evaluated and ultimately eliminated, and discuss specific criteria that led to their elimination from consideration, specifically:

- What other Grove Farm parcels were considered and rejected?
- What other landowner parcels in Kauai (Gay and Robinson, Hawaiian Home lands, etc.) were considered and rejected?
- What other Important Agricultural Lands were considered and rejected?
- What discussions were completed with State of Hawaii DLNR or DOA regarding State Agricultural Park Programs and availability of other state lands?
- What other parcels on other islands were considered and rejected?

Ulupono Initiative has announced that it is evaluating the purchase of Cloverleaf Farms, a 900 acre, 700 head dairy already operating on the island of Hawaii. The applicant should explain how the existing facilities, operational inputs, and soil conditions of the Cloverleaf parcel fit the stated ideal location criteria. In addition, the applicant should review the Cloverleaf location with respect to the 13 significant impact criteria so that the public can compare the stated benefits and adverse impacts of the two locations. Specifically, the study should describe the Cloverleaf location relative to its nearby population center, the economic base of the adjacent neighborhood, the role of the visitor industry, adjacency to surface water streams and the ocean, location of watersheds and public drinking water supplies. Explain why the Cloverleaf location, which already has needed operational inputs, cannot be enhanced to achieve the stated goals of Hawaii Dairy Farms.

**Confined Dairy Operation.** What specific criteria would be used to assess the possible location of a confined dairy operation, and why would Mahaulepu Valley be considered a suitable location for such an operation? Why would Hawaii Dairy Farms consider this model of industrial farming? What are the risks and rewards/benefits of this model?

**“New Zealand Model”.** Moreover, the proposed intensive rotational model has come under great criticism in New Zealand for its negative impact on the environment, including contamination of rivers and streams. If Hawaii Dairy Farms is using such a model, what is being proposed that is different to result in a different outcome? Why should we believe that the experience of Hawaii Dairy Farms will be any different from New Zealand farms that have caused great harm to the environment?

### 3.0 Environmental Setting

**Unfavorable soil type means high probability of contaminated runoff.** The predominant soil type is clay based and poorly draining. Based on the NRCS Custom Soil Resource Report referenced previously, the soils on the farm are **very limited** in their ability to dispose of wastewater by irrigation. There is a clear conflict between the applicant's claim that the location provides "suitable soils" (*Ref. Hawaii Dairy Farms EISPN, section 2.1*) and the NRCS report that the soils are very limiting for an intensive animal feeding operation and land application of animal waste. "Poor performance and high maintenance can be expected." (*Ref. NRCS Custom Soil Resource Report for Island of Kauai, Hawaii, June 5, 2014*)

The plan needs to address the severe limitations of the soils on the farm, why this location has been selected, despite the poor soil properties, and the high probability of contaminated runoff.

**Upslope from adjacent coastal zone.** The location is upslope from the nearby coastal zone and flanked by two ridges on either side. This poor location means that all excess water from rain events will eventually make its way down to the coastal zone by way of ditches, streams and rivers. Moreover, any serious rain event will send excess rain water down the ridges and on to the valley floor. The plan needs to address how surface water and ground water will flow across the site, and discuss the probability of excess manure laden water leaching into groundwater and spilling into Class 1 surface waters, including the Pacific Ocean.

**Location prone to intense rain events.** Rain events in Mahaulepu can be intense. Anyone who lives or works in the area knows this. "Kona" or southern winter weather storms are particularly laden with moisture which hits up against Haupu and drops heavy levels of rain suddenly in short periods of time. The plan needs to address the limitations of the site during peak rain events, not averages. The plan should model what would have happened in 2006 during Kauai's famous "40 days of rain event". Moreover, climate change scientists predict an increase in intensity and frequency of hurricanes and severe storms. The applicant has the responsibility to address the cumulative effect of climate change on the farm location and the management of water and effluent runoff.

**Proximity to public drinking water wells and recharge zones.** Kauai depends on ground water for potable water. The proposed location sits on the watershed that makes up the groundwater aquifer which feeds the public drinking water supply for Koloa and Poipu. The plan needs to include a detailed groundwater study, including rate and direction of flow and assessment of the impact of nitrate, bacteria, and manure leaching into the soil and through to the groundwater. Please provide a map which shows the perimeter of the farm, the public drinking wells for Koloa/Poipu, the recharge zones for the wells, and the effluent spray areas. Please provide exact distances from the Koloa/Poipu drinking wells and the perimeter of the farm.

**Surface Water Resources and Impacts.** The applicant should address the age, quality and condition of the various irrigation pipes and systems which cross the proposed farm. The Waiopili Stream is already impaired, per the monthly water testing from the Blue Water Task Force, Surfrider Foundation. What steps are going to be taken to address the current impairment and return the surface water to acceptable levels of contaminants before reaching Class 1 waters?

**Ground Water Impacts.** Please prepare a topographic map which shows the proposed farm, the underlying watershed and aquifer of the proposed farm. Please show the location of the public drinking water wells, relative to the perimeter of the farm, and denote distance from the farm to the public water wells. Please complete a detailed hydrology study of the water shed and the recharge zones for the public water supply. Please address how ground water quality will be monitored.

**Prevailing trade winds bring odor, vector, and contaminated irrigation mist into population centers.**

The proposed location is in direct line with the prevailing north-east trade winds, the strongest and most persistent on the entire island. Winds generally blow in from the north east, and as the winds hit the cliffs at Kipu, they compress and pick up velocity and run parallel to the coast, in direct line to the major population and visitor destination centers of Poipu and Koloa, including the Grand Hyatt Hotel and Poipu Beach Park, County of Kauai. These winds will carry farm odor, flies, methane, and particulates from paddock irrigation. "There is no wind break or barrier sufficient to mitigate these prevailing winds." (*Ref. Chuck Blay, PhD.*) The plan needs to address the high probability of wind borne pollution into existing population centers, visitor destination areas, and county parks. The plan should also address the impact of 2000 cows on greenhouse gases.

#### **4.0 Probable Impacts and Mitigative Measures**

##### **4.1 Short Term Impacts**

How many construction jobs will be created and for what period of time? What is the expected value of these jobs? What measure will be taken to mitigate noise, dust, and other impacts from construction?

##### **4.3. Significance Criteria**

The proposed action triggers multiple significance criteria. The applicant must address the possible impacts described below.

**Significance Criteria: Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

Mahaulepu and adjacent lands are sacred to the Hawaiian people, and there are many burial sites across the area. The applicant must complete a detailed archeological review of the area including the location of known petroglyphs, heiau, and burial sites. The farm cannot be viewed as a self-contained island that will not have impact on neighboring areas. In scoping the impacts, the geographical unit should begin with the ahupua`a, and extend beyond the geographic boundaries of the farm so as to ensure that the impacts that occur beyond the boundaries of the farm are assessed.

"The Mahaulepu Coast offers varied and readily accessible recreation activities in a wilderness type atmosphere." (NPS p. 43) Moreover, "This little corner of Kauai [Mahaulepu] contains the most extensive, best-documented continuum of history of any single locality . . . of the Hawaiian archipelago. Geologically, in addition to Waimea Canyon and Na Pali, Mahaulepu is one of its gems." (Chuck Blay, PhD. [Kauai's Geologic History, A Simplified Overview.](#)

## **Significance Criteria: Curtails the range of beneficial uses of the environment**

The soil cannot be changed, the winds cannot be redirected, the watershed cannot be diverted, and the rain won't fall in a different place. These major negative features of the farm's proposed location will have significant adverse impacts on the beneficial uses of the adjacent areas, specifically:

- ***Beneficial use of Mahaulepu Beach and Waiopili Stream.*** According to the South Kauai Community Plan, "Mahaulepu Beach functions as a de facto beach park and recreational area". The mouth of the Waiopili Stream is a popular place for children to play in its shallow waters before releasing to the ocean. It is a common sight to see children wading and laying in the shallow waters at the mouth of the stream and adjacent tidepools. Families will no longer be able to enjoy this part of the beach due to high contamination caused by surface water runoff that courses over the grazing paddock laden with manure, enters the ditches, and ends up in the Waiopili stream and ocean. The plan needs to address the probability of contaminated runoff at the mouth of Waiopili and the beach at Gillen Cottage. The mouth of the stream is already polluted, and actions must be taken now to inform the public of the current impaired status of the stream. The applicant and landowner must identify an action plan and completion schedule to restore the site to healthful standards.
- ***Impacts to Recreational Activities.*** "The Mahaulepu Coast offers varied and readily accessible recreation activities in a wilderness type atmosphere." (*National Park Service Reconnaissance Study p. 43*) Specifically, Mahaulepu Beach and adjacent waters are a popular spot for many water sports, including swimming, windsurfing, kitesurfing, and paddling. The reef areas in front of Waiopili Stream and Gillen Cottage are considered some of the best waters for kitesurfing and windsurfing. Participants in these water sports have the potential to be exposed to contaminated waters which come from the farm and would risk contracting illnesses borne in the surface water.
- ***Impacts to small businesses dedicated to the visitor industry.*** Many small businesses operate visitor tour companies in the adjacent areas, including hiking and walking tour companies, horseback trail rides, ATV and adventure outfitters. The high probability of odor, flies, and contaminated water will damage the quality of the product offered by these companies, especially along the Mahaulepu Coast Trail. The applicant needs to address how small businesses who utilize the area will not be significantly impacted by the dairy farm. The applicant needs to address the reputational risk for these companies through such outlets as customer reviews on TripAdvisor, Yelp, and other on-line outlets.
- ***Impacts hunting and gathering rights.*** Fences surrounding the grazing paddocks will limit access to hunting and gathering areas in the valley and may disrupt wildlife corridors. The applicant needs to address the impact substantial fencing will have on wildlife movement and hunting practices.
- ***Impacts to access rights -Public Access Shoreline Hawaii (PASH).*** The applicant needs to address the potential adverse impact the dairy operation may have on Native Hawaiian access rights and the ability to travel freely between tracts of land, especially for gathering plants, wood, and other natural resources.

- **Impacts ancient Hawaiian trails.** Pursuant to HRS Chapter 198D (Na Ala Hele Program), the applicant must identify the existence of ancient Hawaiian trails through the property, especially through the fenced grazing areas.
- **Impacts fishing and gathering.** The nearshore waters of Mahaulepu are known as “prime fishing areas” and include ulua, papio, and oio. (NPS Park study p.26). It is highly probable that dairy operations will introduce excess nutrients to the waters, clearly compromising local fishing, spearfishing, and gathering opportunities.
- **Impacts critical habitat for endangered arthropods** (cave wolf spider and cave amphipod) may also be compromised as these arthropods rely on nutrient-rich seepage from water in the cave. According to the National Park Service “The Waiopili Stream joins with natural springs and is linked hydrologically to the cave.” The applicant must address how the water will remain clean all the way to the cave, especially when the cave floods.
- **Impacts beneficial use by marine life.** The health of large marine animals may be compromised should the dairy be allowed to operate in its proposed location. The dairy will utilize drainage ditches which link to the Waiopili Stream which discharges into the Pacific Ocean at Mahaulepu Beach. Mahaulepu Beach is a successful monk seal pupping area, and monk seals are frequently sighted resting at Kawailoa. The water in the Waiopili Stream is already highly polluted (reference to other sections) and poses a health risk to these endangered animals. Green sea turtles (honu) also feed in the shallow waters on algae and sea grasses and bask on open beaches. The applicant must address how their operations pose no risk to marine life

**Significance Criteria: Substantially affects the economic or social welfare of the community or State**

**Incentives to HDF.** Hawaii Dairy Farms has announced that it will invest \$ 17.5 million in startup costs without government subsidies, and spend \$ 6 -9 million a year to operate the dairy in Mahaulepu Valley. Please describe the components of the \$ 17.5 million investment. Please describe how many short term jobs (due to construction) and long term jobs (from on-going operations) will be created. How many tax dollars are expected to go to the County of Kauai, the State of Hawaii, and the Federal government as a result of this investment, both short term and long term? Please evaluate the economic value of the proposed dairy farm to local ranching partners for receiving heifers, bulls, and calves from HDF.

Since the proposed location is designated “Important Agricultural Land,” please describe the tax credits, tax abatements, and other incentives that HDF will receive, and the total value of these incentives. For what period of time will these incentives be awarded, and what incentives, if any, have already been received? Given these financial incentives, what is the true out of pocket investment that HDF will incur both at start up and as an on-going enterprise.

**Substantial Impact on visitor industry.** The proposed industrial farm is located too close to the vibrant resort community of Poipu/Koloa. This area is the largest visitor destination on the whole island (South Kauai Community Plan). I estimate that it represents over \$ 500 million in annual visitor expenditures and more than 5500 jobs for the visitor industry alone. (Hawaii Tourism Authority Key Statistics 2014).



The Grand Hyatt is the largest non-government employer in the County. Moreover, the adjacent neighborhood represents more than \$26 million or 23% of the 2014 property tax revenues of the County of Kauai. These values will be at risk due to the degradation of environmental quality that the proposed farm will bring including odor, noise, flies, and other nuisances.

The applicant must address the current economic contribution of the Poipu/Koloa community to the County of Kauai with respect to:

- Jobs
- Property tax revenues
- Visitor spending,
- Property values,
- Transient accommodation taxes,
- General excise taxes

The risk to the reputation of the Poipu/ Koloa visitor area is significant and must be addressed. According to the Hawaii Tourism Authority, two thirds of visitors to Kauai are repeat visitors. By changing the environment with respect to air quality, water quality, and overall ambience, visitor satisfaction can be impacted. And with the immediacy of on-line communications and visitor sites such as TripAdvisor, Yelp, and others, this reputation can be damaged quickly and irreparably.

***Substantial impact on local economy and future projects.*** A number of new housing developments have been approved, but not yet started in the adjacent neighborhoods. Please show the proposed location of the farm relative to Poipu Gateway Village (South Kauai Community Plan) and the new housing communities around Kiahuna Golf Village. The attractiveness of these development projects will be reduced. The applicant should address the economic loss to the construction industry and related businesses should these projects not be constructed due to their proximity to an industrial dairy.

**Significance Criteria: Substantially affects public health, and involves a substantial degradation of environmental quality**

The location of HDF in Mahaulepu Valley will cause substantial degradation of environmental quality in the adjacent coastal zone and in the nearby visitor destination center of Poipu-Koloa. The farm cannot be viewed as a self-contained island that will not have impact on neighboring areas. In scoping the impacts, the geographical unit should begin with the ahupua`a, and extend beyond the geographic boundaries of the farm so as to ensure that the impacts that occur beyond the boundaries of the farm are assessed.

***Air quality degradation.*** As described in the HDF Waste plan, high pressure guns will spread diluted manure in a 65 foot radius and spread mist that can travel miles. Coupled with the prevailing trade winds, these odiferous mists will travel directly into the neighborhoods of Poipu and Koloa, causing 2500 residents and an estimated 400,000 visitors a year discomfort and distress, and risking their health.

Moreover, Poipu Beach Park is one of the most popular parks in the County of Kauai public park system. Families from all over the island frequent the park for major events. Their enjoyment of the park will be compromised and their health will be endangered. The applicant needs to address how it will prevent farm odor from reaching population centers and public parks.

**Surface water degradation.** Manure and nitrogen will be discharged by cows in the paddocks and left on the land. This manure can be moved by storm water to surface streams and groundwater aquifers. Excess runoff from paddocks irrigated with manure laden water will flow from the storm ditches to Waiopili stream to the Pacific Ocean (Class 1 waters). The high probability of contaminated runoff is exacerbated by the poor soil properties of the farm. According to the NRCS Custom Soil Resource Report, June 2014, the soil is **very limited** in its ability to handle an animal waste operation. The stream is already highly contaminated as shown by the Blue Water Task Force, Surfrider Foundation.

One theory of this stream pollution is that feral animals are causing the impairment. If this is the case, then what will happen when 2000 more animals are on the land, with manure and urine being left in place. There is significant risk of further pollution to receiving ocean waters. The applicant should address why it has chosen this location with proven unsuitable soils and already impaired streams, and how it will prevent contaminated runoff from reaching the Waiopili Stream and Pacific Ocean.

**Public drinking water contamination.** Kauai relies on groundwater for its potable water. The proposed dairy location is too close to public drinking water source Koloa Well F and should be rejected. The dairy site is on the watershed that feeds the aquifer for public water wells. Nitrate, bacteria and manure can leach into the groundwater and contaminate the drinking water supply. The applicant should complete a detailed groundwater study, including such topics as the exact location of the well recharge zones, as well as where groundwater recharged by the dairy discharges to wetlands, streams, and springs.

The plan should address the location of the calf cemetery relative to water sources, both surface and groundwater, and describe all actions that will be taken to avoid contamination of water by dead animals. The plan should identify all wetlands in the area.

In addition, locals report that there are fresh water springs that bubble up on the beach near Gillen Cottage and appear in the Makauwehi Cave. The plan needs to demonstrate the hydrological link, or lack thereof, between these springs and the groundwater underneath the proposed dairy.

**Biting flies.** Massive amounts of manure left on the paddocks by grazing cows create a moist and attractive breeding environment for sucking flies that exist on blood meals. According to Carlos White, Industrial Entomologist (letter to Mayor Carvalho , dated October 13, 2014) "one fertile fly can result in billions of descendants within a few months' time" . . . the house fly is capable of at least a 5 mile dispersal from its origin, and probably more with the winds of Kauai, this would include much of the Poipu area . . . would be subject to clouds of very high fly populations throughout the year." The plan must address how fly populations will be prevented from reaching and injuring the local and visitor populations. Specifically, the plan should address what types of chemicals and integrated pest management systems will be employed, and address why these systems will be effective when other large industrial dairies have not been successful in controlling flies or other vector.

**Noise.** Calves are typically separated from their mothers 3 days after birth. This results in loud bawling from the calves and distress calls from the mothers, day and night. Moreover, cows in heat call loudly for three days or more. This noise cannot be controlled or suppressed. The applicant should address how this noise will not constitute a nuisance and noise pollution, especially at night, when the trade winds typically abate. The plan also should address how the constant humming of the milking machinery and irrigation systems will not disturb the nearby residential community and visitor destination area.

**Animal disposal after useful life.** The plan needs to address the disposition of animals that are no longer productive for the farm, including the killing of bull calves and dying cows. How and where will animal carcasses be processed? At the 2000 herd level, how many animals are expected to be culled on a yearly basis and where will remains be processed and handled? Describe in detail the location of the proposed calf cemetery, its capacity, and processing procedures. Where is it located relative to public drinking water and wetlands? What specific policies and procedures will be followed to protect ground water from decomposing animals? What emergency policies and procedures have been detailed in the event of a flood, hurricane, or other serious weather event? What specifically constitutes an emergency?

**Significance Criteria: Is individually limited but cumulatively has a considerable effect upon the environment or involves a commitment for a larger action**

The HDF plan does involve a commitment to a larger action (from 699 to 2000) which must be addressed now. All nutrient management plans and waste management plans must be detailed at the 2000 cow level.

**Conclusion – Analyses will show that the proposed location must be rejected.**

The additional analyses requested above will show that Hawaii Dairy Farms has chosen a location in Mahaulepu Valley that is unable to support its intensive rotational farm model without creating significant adverse impacts to the environment, injuring the successful and vibrant economic base, and the hurting the public health of the well-established local residential and visitor community of Poipu/Koloa.

Thank you,

Cornelia Boyle

[corneliaboyle@gmail.com](mailto:corneliaboyle@gmail.com)

1542 Pe`e Road, Koloa, HI 96756

808-742-8844