

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawai'i

January 13, 2011

Board of Land and
Natural Resources
State of Hawai'i
Honolulu, Hawai'i

REGARDING: Conservation District Enforcement File (ENF): HA-10-23
Alleged Conservation District Violation of Coral Damage at Kawaihae
Small Boat Harbor

BY: Neil Sims
Kona Blue Water Farms
P.O. Box 4239
Kailua-Kona, Hawai'i 96745

LOCATION/TMK: Kawaihae Small Boat Harbor, South Kohala, Hawai'i

SUBZONE: Resource

DESCRIPTION OF AREA:

Kawaihae Bay is a gently curving indentation along the coastline, and encompasses a water area of approximately 13 square miles. The Kawaihae Small Boat Harbor (SBH) is located in on the northwest corner of the Island of Hawai'i in the South Kohala District (**Exhibit 1**), on the south side of the Department of Transportation (DOT) Harbors Division's Kawaihae Deep Draft commercial harbor (**Exhibit 2**).

The adjacent Kawaihae Deep Draft Harbor was completed in 1959 with the dredging of an extensive shallow coral reef formation which extended 4,000 feet offshore and more than a mile along the coast to the south of Kawaihae. The United States Army Corps of Engineers dredged the harbor and built the breakwall between 1957 and 1959. The Deep Draft Harbor was expanded in 1973.

A small boat harbor had been planned since 1963, and as an interim measure, small boats were allowed to moor on the South side of the Deep Draft harbor. The South Kawaihae Small Boat Harbor entrance channel and 850-foot West breakwater was constructed as part of Operation Tugboat by the U.S. Army Engineer Nuclear Cratering Group and completed in December 1970. As part of Operation Tugboat, the Army utilized nuclear explosives to create a channel 150 to 260 feet wide at a minimum water depth of 12 feet. Approximately 33 acres of coral reef was destroyed while creating the Small Boat Harbor.

The South Kawaihae Small Boat Harbor West breakwater was extended by 367 feet to the East and the 749-foot East Breakwater was constructed by the U.S. Army Corps of Engineers and completed in July 1998. Additionally, the Small Boat Harbor on-shore improvements transferred to the State DLNR Division of Boating and Ocean Recreation (DOBOR) in July 1998.

Many varieties of corals, including *Porites* and *Pocillipora* are common components of the remaining living reef communities outside the harbor. The reef seaward and to both sides of the small boat harbor is well-developed, pristine, wave-exposed, coral reef with abundant fish population and a typical dominance of the finger corals *Porites compressa* and *Montipora capitata*, and the lobed coral *Porites lobata*.

In general, the submerged areas comprising the shallow southeastern basin have an average water depth of four feet while the deeper northwestern basin has an average of 12 feet.

The nearshore waters of the Kawaihae Small Boat Harbor lie within the State Conservation District, Resource Subzone.

CHRONOLOGY OF EVENTS:

On April 1, 2010, DLNR staff observed a large, net pen floating in the northwest part of Kawaihae Small Boat Harbor. Staff inspected the site and found the net pen was residing over live coral. Staff notes that the subject net pen had caused damage to corals. The anchor lines for the net pen were secured to large, circular blocks with chain links (**Exhibit 3**).

On April 6, 2010, a representative from Kona Blue was contacted by DLNR staff in which he informed the DLNR staff that Kona Blue did not have a permit to have the net pen moored at Kawaihae or to be moved from Keāhole Point to Kawaihae.

On April 7, 2010, the net pen was moved into deeper water in the south basin at Kawaihae Small Boat Harbor.

On April 8, 2010, DLNR staff returned to assess coral damage within the northwest harbor area previously occupied by the net pen. A total of 28 instances of coral damage were recorded (**Exhibit 4**).

On June 15, 2010, a Notice of Alleged Violation & Order was sent to Kona Blue (**Exhibit 5**).

On June 30, 2010, Kona Blue responded to the Notice (**Exhibit 6**).

On June 21, 2010, the net pen was removed from Kawaihae Small Boat Harbor.

ALLEGED VIOLATION:

Kona Blue moved a net pen from Keāhole Point to the northwest part of Kawaihae Small Boat Harbor. The net pen was found residing over live coral. The anchor lines for the net pen were secured to large, circular blocks with chain links. The net pen and anchor lines appeared to have caused the damage to the corals around area of the placement of the net pen.

DLNR staff assessed coral damage within the northwest harbor area previously occupied by the net pen, and found three categories of damage were found at the area of the placement of the net pen the Kawaihae Small Boat Harbor (**Exhibit 4**):

1. "Fingers," or protrusions, of *Porites compressa* and *Montipora capitata* were broken off or leveled usually evidenced by white break marks dusted over with fine sediment (**Exhibit 4, Figure 5**).
2. Coral heads, primarily *Porites lobata*, were dislodged and rolled onto their sides, into the soft sediment resulting in the death of the coral on the underside of the head (**Exhibit 4, Figure 6**).
3. Coral colonies with leveled, dead tops were also observed. Dark materials resting on top of dead coral were indicative of direct contact with fouled netting (**Exhibit 4, Figure 7**).

LEGAL AUTHORITY:

The Department and Board of Land and Natural Resources has jurisdiction over submerged lands from the upper reaches of the waves on shore seaward to the extent of the State's jurisdiction (three nautical miles), pursuant to §171-3, Hawai'i Revised Statutes (HRS).

This matter is a potential violation of Aquatic Resources pursuant to Hawai'i Revised Statute (HRS) §187A-12.5(e), and Hawai'i Administrative Rules (HAR) §13-95-70 and §13-95-71.

HAR §13-95-70(a) states: "It is unlawful for any person to take stony coral, or to break or damage any stony coral with a crowbar, chisel, hammer, or any other implement." HAR §13-95-71(a) states: "It is unlawful for any person to take live rock, or to break or damage with a crowbar, chisel, hammer, or any other implement, any rock or coral to which marine life is visibly attached or affixed." According to HAR §13-95-1, "break" means "to hit with, or to apply sufficient force to reduce to smaller pieces or to crack without actually separating pieces."

HRS §187A-12.5(c) provides the penalties for violations of HAR §13-95-70, HAR §13-95-71, and other administrative rules relating to aquatic resources. HRS §187A-12.5(c)(3)(e) provides that a fine up to \$1,000.00 may be levied for each specimen of aquatic life taken, killed, or injured in violation of aquatic statutes or rules. "Aquatic life," according to HRS §187A-1, includes coral.

DISCUSSION:

Kona Blue has two existing Conservation District Use Permits (CDUPs) for their open fish farm operation off Keāhole Point: CDUPs HA-3118 (approved August 8, 2003) and HA-3497 (approved July 1, 2009).

According to Kona Blue, the subject net pen was part of a National Oceanic and Atmospheric Administration (NOAA) research project that was conducted at Kona Blue's ocean farm site off Keāhole Point. The pen was originally constructed and deployed from Kawaihae in October 2009 and was tested at the farm site for five months. The pen was then towed back to Kawaihae and temporarily moored in the small boat harbor.

Kona Blue stated that they had received authorization from the DLNR Division of Boating and Ocean Recreation (DOBOR) to moor the pen in Kawaihae SBH. Kona Blue stated that there was a verbal agreement for Kona Blue to wait for the authorization and to call DOBOR prior to moving the pen in. DOBOR confirmed that verbal permission was given to Kona Blue to use the Kawaihae Harbor south basin as a temporary mooring area, and that Kona Blue needed to notify DOBOR prior to moving and mooring the pen. Kona Blue failed to call DOBOR prior to actually moving the pen to Kawaihae SBH.

Kona Blue's action of moving the net pen to the northwest part of Kawaihae SBH and anchoring it appears to have caused the damage to 28 coral specimens around the area of the placement of the net pen, as documented by investigations by DLNR staff.

This report seeks conditions to resolve the subject violation. Staff believes that the damage to coral was unlawful and is within the jurisdiction of the Department and Board of Land and Natural Resources.

Pursuant to HRS §187A-12.5(c)(3)(e), a fine up to \$1,000 may be levied for each specimen of aquatic life taken, killed, or injured in violation of aquatic statutes and rules. The following discussion analyzes fines levied or agreed upon in previous major coral damage matters. The intent is to provide the Board with some guidance and a recommendation as to exercise at the Board's discretion to levy a fine of "up to \$1,000" per specimen.

The Department looked at prior coral damage cases that were decided by the Board and compared both the ecosystem value of the general coral habitat, as well as the amount of affected or damaged area, in order to determine an area-based evaluation more reflective of the overall ecosystem value for the damaged reef at Kawaihae.

The Department recommends a dollar value be assigned to represent the gravity of the violation, taking into account a per-specimen fine, as described in HRS §187A-12.5(c)(3)(e), in which a fine up to \$1,000 may be levied for each specimen of aquatic life taken, killed, or injured in violation of aquatic statutes and rules.

The fine assigned per-specimen should balance the extent of harm caused with the sensitivity of the environment impacted. The Board may consider:

1. The sensitivity of the wildlife impacted, including but not limited to threatened or endangered species;
2. Whether damage resulted in death to the specimen;
3. The sensitivity of the environment impacted;
4. Length of time of violation.

In addition, the Department may adjust fines further depending on factors and mitigating circumstances of the specific case.

Table 1 shows how the per-specimen fine was determined for this Kawaihae case. The maximum penalty for non-threatened or endangered species is \$1,000 per specimen. The coral area value was measured as "Medium Coral Area Value" indicating 20 to 49 percent coral cover;

or medium complexity; or medium rugosity (1.2 to 1.49). Ecological Service Value was low to medium. Per-specimen fines ranged from \$200 (minimal damage to low ecological value coral) to \$600 (significant damage to medium ecological value coral).

TABLE 1: CORAL DAMAGE ASSESSMENT						
Ecological Service Value				Coral Area Value	Amount	
Colony	Value	Size	Species	Value		
1	Medium	31cm	<i>P. compressa</i>	Medium	\$300	Minimal Damage
2	Low	16cm	<i>P. lobata</i>	Medium	\$400	Significant Damage
3	Medium	24cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
4	Medium	35cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
5	Medium	32cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
6	Medium	32cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
7	Medium	21cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
8	Medium	33cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
9	Medium	40cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
10	Low	18cm	<i>P. lobata</i>	Medium	\$400	Significant Damage
11	Medium	26cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
12	Medium	21cm	<i>P. lobata</i>	Medium	\$600	Significant Damage
13	Low	13cm	<i>P. compressa</i>	Medium	\$400	Significant Damage
14	Medium	26cm	<i>P. compressa</i>	Medium	\$300	Minimal Damage
15	Medium	25cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
16	Low	15cm	<i>M. capitata</i>	Medium	\$200	Minimal Damage
17	Medium	27cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
18	Medium	26cm	<i>M. capitata</i>	Medium	\$300	Minimal Damage
19	Medium	34cm	<i>M. capitata</i>	Medium	\$600	Significant Damage

20	Medium	33cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
21	Medium	26cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
22	Medium	24cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
23	Medium	26cm	<i>M. capitata</i>	Medium	\$300	Minimal Damage
24	Medium	23cm	<i>M. capitata</i>	Medium	\$300	Minimal Damage
25	Medium	31cm	<i>M. capitata</i>	Medium	\$600	Significant Damage
26	Low	14cm	<i>P. lobata</i>	Medium	\$400	Significant Damage
27	Low	19cm	<i>P. compressa</i>	Medium	\$200	Minimal Damage
28	Low	14cm	<i>P. lobata</i>	Medium	\$400	Significant Damage
					\$13,500	Total Assessment

With 28 coral colonies damaged at various degrees of damage and ecological service value, the Department has determined the total assessment to be \$13,500.

Staff believes, however, there are a number of mitigating circumstances in this particular case:

1. The alleged was granted verbal authorization from the Division of Boating and Ocean Recreation (DOBOR) to place the net pen in Kawaihae Small Boat Harbor. Although staff does not know the details surrounding communications between DOBOR staff and Kona Blue Water Farms (KBWF) personnel, it appears that DOBOR should have considered the potential effect of the net pen on coral within the harbor prior to granting KBWF verbal approval to use the harbor.
2. The coral is located in a boat harbor that is expected to have higher concentrations of vessel traffic than areas in the open sea in which coral resources exist.
3. Staff believes that the damage to coral was not intentional and was inadvertent.
4. The damage to the coral appears to be relatively minor (based on the photographs included in the DAR investigation – e.g. scraping, breaking of finger corals), with the exception of a few cases (displacement of coral heads).
5. The alleged has cooperated with the Department throughout this process, and the subject net pen has been removed from the ocean with no additional environmental harm.

Due to mitigating circumstances discussed above, Staff recommends a reduction of 50 percent of the total fine, which would now result in a penalty total of \$6,750.00.

TABLE 2: PROPOSED ADMINISTRATIVE PENALTIES			
Available Penalties	Proposed Penalty	Offense	Legal Authority
Graduated fines (up to \$1,000 per specimen for first offense)	\$13,500	\$200 to \$600 fine per specimen of stony coral damaged x 28 specimens (see Table 1)	HRS §187A-12.5(e)
Less a 50% penalty reduction based on case mitigating circumstances	\$6,750		

All coral is important and rare natural resource in Hawaiian waters. Thus, actions that result in damage to this natural resource must be addressed in a transparent and meaningful manner, whether such damage is intentional or unintentional, and whether the damage is considered major or minor. Each case will have its own unique circumstances and consequences, and such circumstances and consequences must be weighed and balanced in a way that results in a reasonable outcome that allows DLNR to: 1) continue to protect resources, 2) continue to hold responsible parties accountable, and 3) achieve closure to enforcement cases quickly and in an effective manner.

In this case, Staff believes that a small fine of \$6,750 is reasonable based on the circumstances, which have been discussed above. It is our belief that prosecution of this case in the manners described in this report will preserve our practice and methods of pursuing these types of cases, will continue to send a strong message that any practices that damage coral carry consequences, will compensate the State for damages to its resources, and will bring closure to the matter so we can move onto the next case.

FINDINGS:

1. That an Aquatic Resources violation occurred with the placement and anchoring of the net pen causing damage to 28 coral specimens;
2. That the coral was damaged in the small boat harbor, an area frequented by boat and vessel traffic;
3. That Kona Blue was initially given verbal authorization to temporarily moor the net pen at the small boat harbor.

AS SUCH, STAFF RECOMMENDS:

The Board assesses administrative fines, fees, and costs against Kona Blue for damage to coral and live rock, pursuant to HRS §187A-12.5(e), HAR §13-95-70, and HAR §13-95-71.

1. Kona Blue is fined \$6,750.00 for the violation, pursuant to HRS §187A-12.5(e) and (f);
2. Kona Blue shall pay all fines within sixty (60) days of the date of the Board's action;

3. A condition will be added to CDUP HA-3497 requiring Kona Blue to notify OCCL when approved pens from fish farm are being removed or replaced;
4. That in the event of failure of Kona Blue to comply with any order herein, Kona Blue shall be fined an additional \$1,000.00 per day until the order is complied with; and
5. That in the event of failure of Kona Blue to comply with any order herein, the matter shall be turned over to the Attorney General for disposition, including all administrative costs.

Respectfully submitted,



Audrey Barker, Staff Planner
Office of Conservation and Coastal Lands

Approved for submittal:



William J. Aila, Jr., Interim Chairperson
Board of Land and Natural Resources

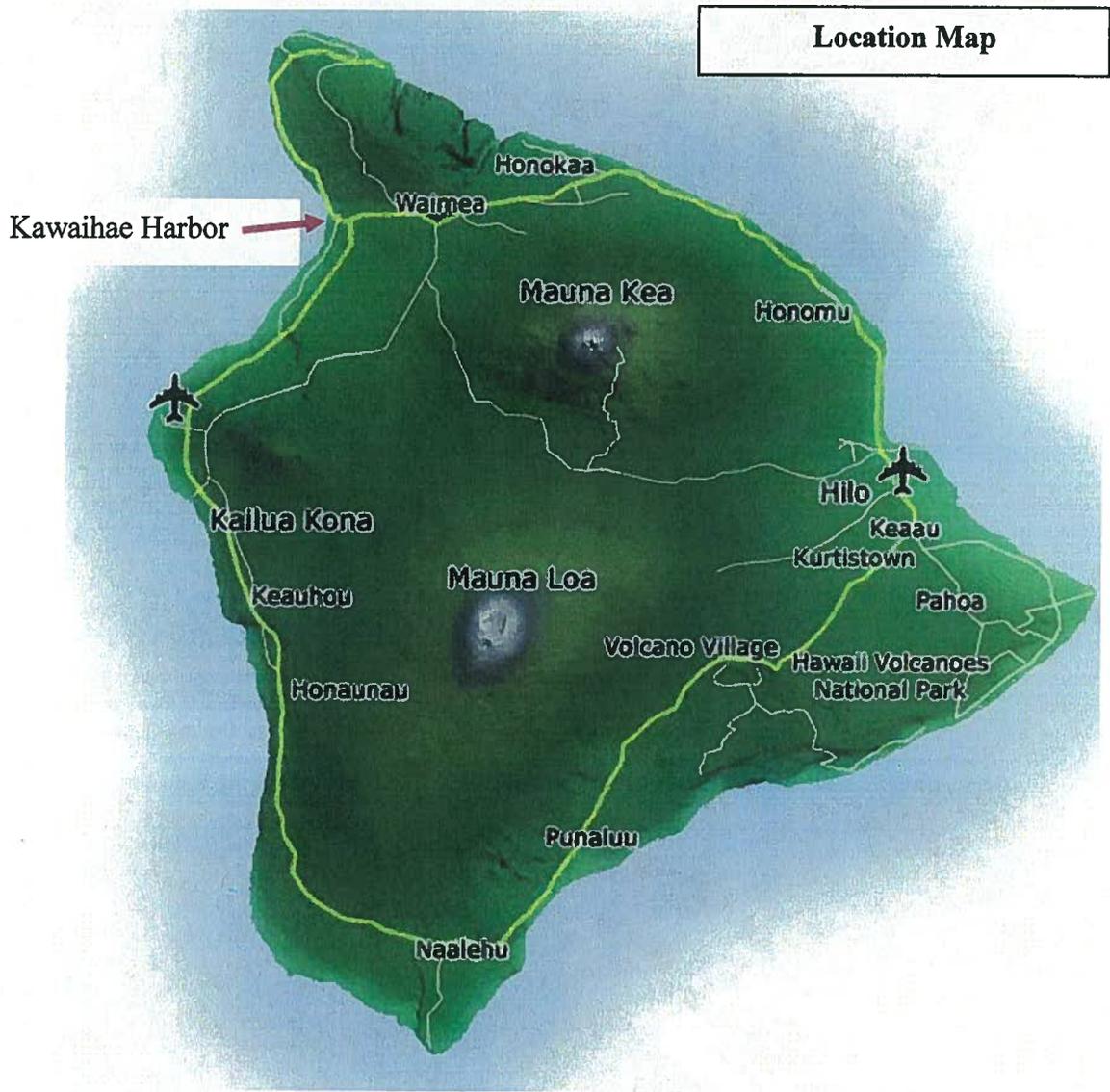


EXHIBIT 1

Aerial Photographs of Kawaihae Small Boat Harbor



Kawaihae Small Boat Harbor

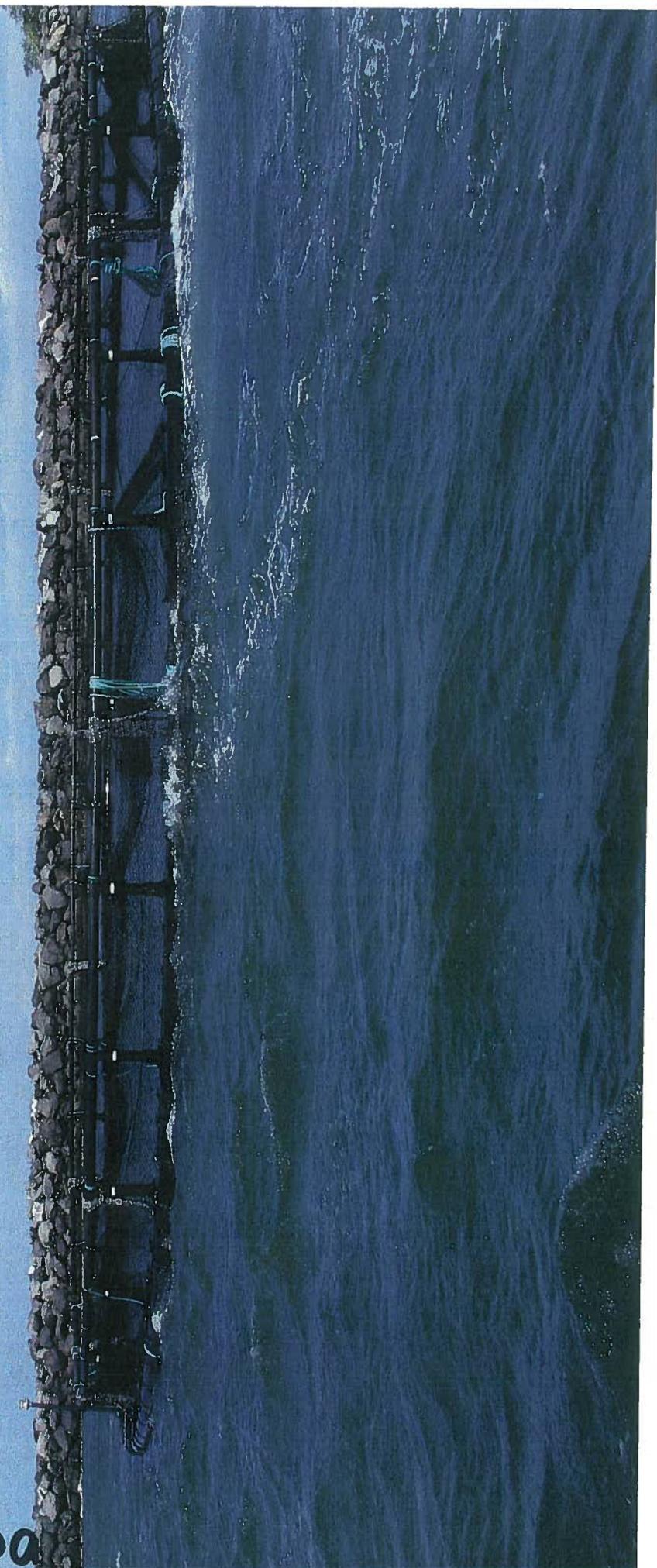
Source: UH Coastal Geology Group

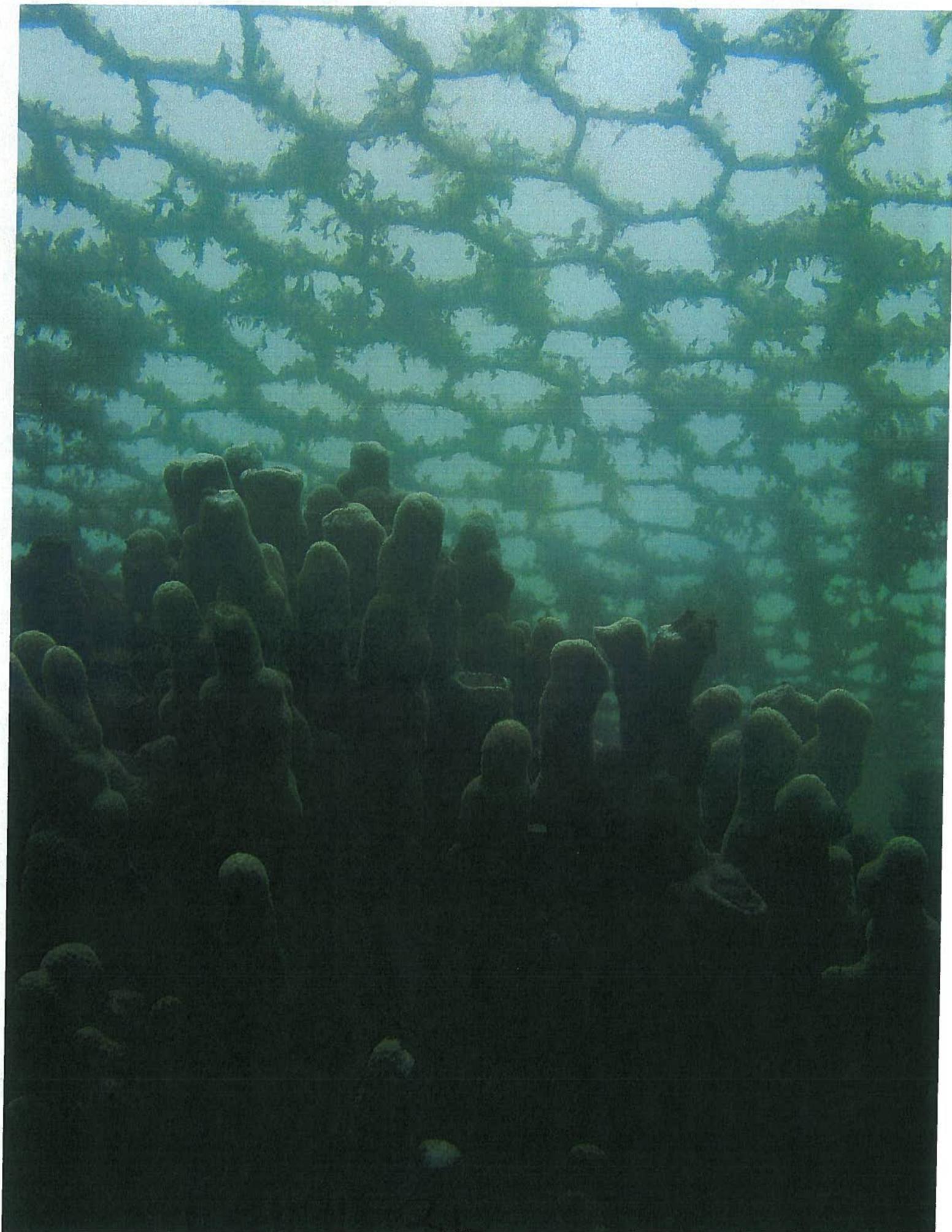


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EXHIBIT 2

EXHIBIT 3a





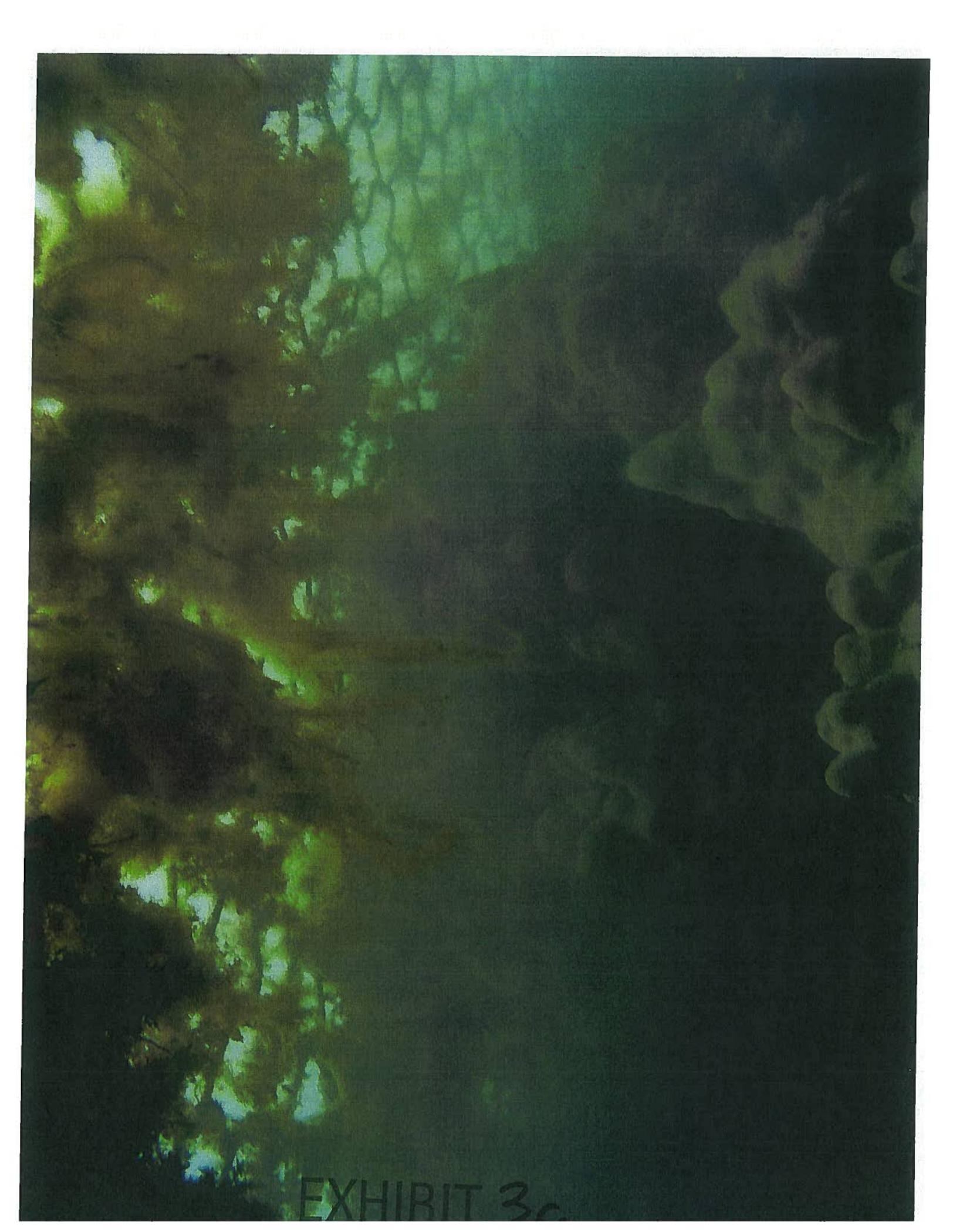
A dark, grainy photograph of a forest canopy. Sunlight filters through the dense foliage, creating bright, glowing patches of light against the dark background of the trees. The overall tone is dark green and black, with a high-contrast, almost ethereal quality. The texture is very rough and noisy, suggesting a low-quality scan or a photograph taken in low light.

EXHIBIT 30

EXHIBIT 3A

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
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HISTORIC PRESERVATION
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Net Pen found at Kawaihae Small Boat Harbor on April 1, 2010

At approximately 10am on April 1, 2010 [redacted] arrived at Kawaihae Small Boat Harbor (KSBH) aboard the Division of Aquatic Resources' Glacier Bay power catamaran. We were in the area to provide logistic support for the Coral Reef Assessment and Monitoring Program (CRAMP) headed by [redacted] (UH/HIMB). As we arrived we saw a large, surface net pen floating within the harbor (Figure 1). Upon closer inspection, we found anchor lines running into the water. [redacted] began shooting digital photographs while [redacted] carefully maneuvered the boat around the net pen.



Figure 1 Net pen in Northwest part of Kawaihae Small Boat Harbor on April 1, 2010

We then moved to the southeast corner of the harbor and tied off to the dock. Members of the CRAMP survey crew were awaiting us, so [redacted] went ashore and continued shooting photographs of the net pen and adjacent area. [redacted] remained on the boat, making phone calls to investigate the recent history of the net pen. [redacted] conversed with [redacted] at 11:10am, who asked if there was netting at the bottom of the pen. [redacted] then came ashore where he spoke

EXHIBIT 4a

with DOT employee [REDACTED]). He was told that [REDACTED] at DOBOR had given permission for the placement of the net pen within the harbor. [REDACTED] informed [REDACTED] the net pen had been present for 2 weeks and would remain for an additional 2 months. After returning gear and finishing discussions with members of the CRAMP crew, [REDACTED] returned to the boat and [REDACTED] again spoke with [REDACTED] (12:05pm). [REDACTED] asked us to return to the net pen and determine if there was a bottom net which might be impacting live coral in the harbor.

We motored out to the net pen, where GPS coordinates were taken at 4 spots around its perimeter (see Table 1). From the surface, it was difficult to assess whether or not the net ran under the pen. [REDACTED] had previously conducted surveys within the harbor and knew there was coral within the general area where the net pen was placed. We tied the boat off to the net pen, and began an in-water assessment on snorkel. [REDACTED] followed one anchor line, finding it attached to a metal ring secured in the substrate. After we had confirmed there was both a net running under the pen and it was sitting on live coral, we returned to the boat where phone calls were made to discuss the situation. [REDACTED] reported our findings to [REDACTED].

[REDACTED] both put on SCUBA gear at approximately 12:30pm and returned to the water in order to assess if corals were being impacted by the net. Circling approximately 270 degrees counter-clockwise under the net pen, photographs were taken of the net and coral. The net was fouled with hydroids, algae and other organisms, creating a shade canopy. Living and small amounts of broken and dead coral were observed. The net was found to be sitting on *Porites compressa*, *Porites lobata*, and *Montipora capitata*. *Pocillopora meandrina* was also observed under the net. This assessment and photographs were sufficient to determine the net was impacting coral (Figure 2).



Figure 2. Fouled net over *Porites* and *Montipora* coral heads.

EXHIBIT 4b

We then focused our attention on the remaining anchor lines. We followed each line out, and found them secured to large, circular blocks (approximately 1m diameter by 0.5m height) with chain links (approximately 15cm long). Photographs were taken at each mooring block. These blocks had not been present during surveys conducted by AECOS and DAR in April 2009. The southeastern-most mooring block was not sitting level on the bottom, indicating there was something underneath. Nothing could be seen under it, but some broken coral heads were evident around it.

We then returned to the boat. After removing our line from the net pen, [REDACTED] reported to [REDACTED] at 12:59pm. [REDACTED] then phoned [REDACTED] at 1:23pm, asking her to plot GPS coordinates on Kawaihae SBH Habitat maps previously created for AECOS. This plot is shown in Figure 1. We left the harbor at approximately 1:30pm, discussing the influence of wind on the movement of the net pen. Upon first arrival at the small boat harbor, the wind was blowing north. During the time we were at the harbor, the wind switched to a southward direction. [REDACTED] observed the net pen shifting on its mooring lines to the south with the wind. It is likely that this movement, in addition the changing tides, will cause the net to abrade coral heads in the area under the net pen.

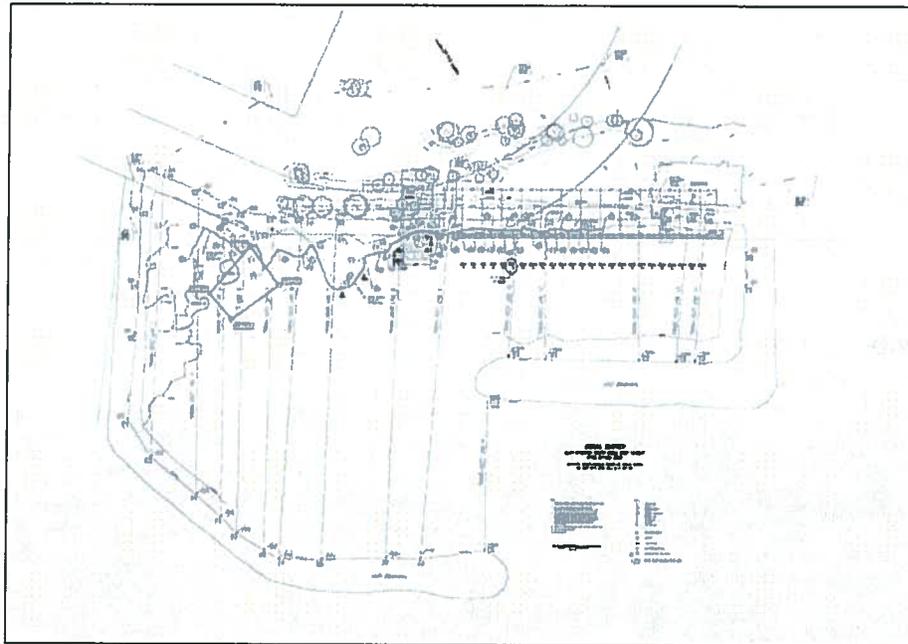


Figure 3. Map of Kawaihae Small Boat Harbor showing net pen location (points in red).

[REDACTED] continued to make phone calls throughout the afternoon. At 3:30pm, [REDACTED] was called by [REDACTED] to report our findings at Kawaihae SBH. [REDACTED] Shimoto was contacted at 3:43pm. [REDACTED] was again consulted at 3:49 for further instruction. [REDACTED] reported to DOCARE dispatcher at 3:51pm, she said she would assign an officer. [REDACTED] called at 4:02pm and was updated on the reported incident.

Return to KSBH on April 8, 2010

EXHIBIT 4c

On April 7, 2010, [REDACTED] at DAR was informed by [REDACTED] the net pen at Kawaihae Small Boat Harbor had been moved to another area within the harbor. On April 8, 2010, a DAR crew returned to KSBH to assess coral damage within the area previously occupied by the net pen. The crew included [REDACTED].

Upon returning to the harbor, we found the net pen had been moved to a deeper water area within the KSBH approximately 30-40m from its previous location. The following in-water assessment was then executed:

Four small Pelican floats were deployed by [REDACTED] (using snorkel gear), one at each of the four GPS locations previously collected by [REDACTED] (April 1, 2010). This created a rectangle-shaped area to be surveyed, with a float marking each of the corners.

- To conduct a linear survey, [REDACTED] put on SCUBA gear and lined up along the eastern-most boundary starting at the southern float. Divers were spaced two arm-lengths apart. Each diver submerged and slowly followed the bearing of approximately 260 degrees, staying within visual contact as they proceeded forward in line. Each coral colony encountered was inspected for damage. If any damage was found, a pelican float was deployed next to the coral. [REDACTED] remained on the surface, tying off each float as it surfaced to prevent excess line from unraveling.
- Upon reaching the westward boundary, divers shifted north and reformed the line. Another sweep was made moving eastward in order to cover the entire rectangular area.
- [REDACTED] then went ashore with the camera to create a photo-record of the deployed pelicans (Figure 4). He then returned to the water.

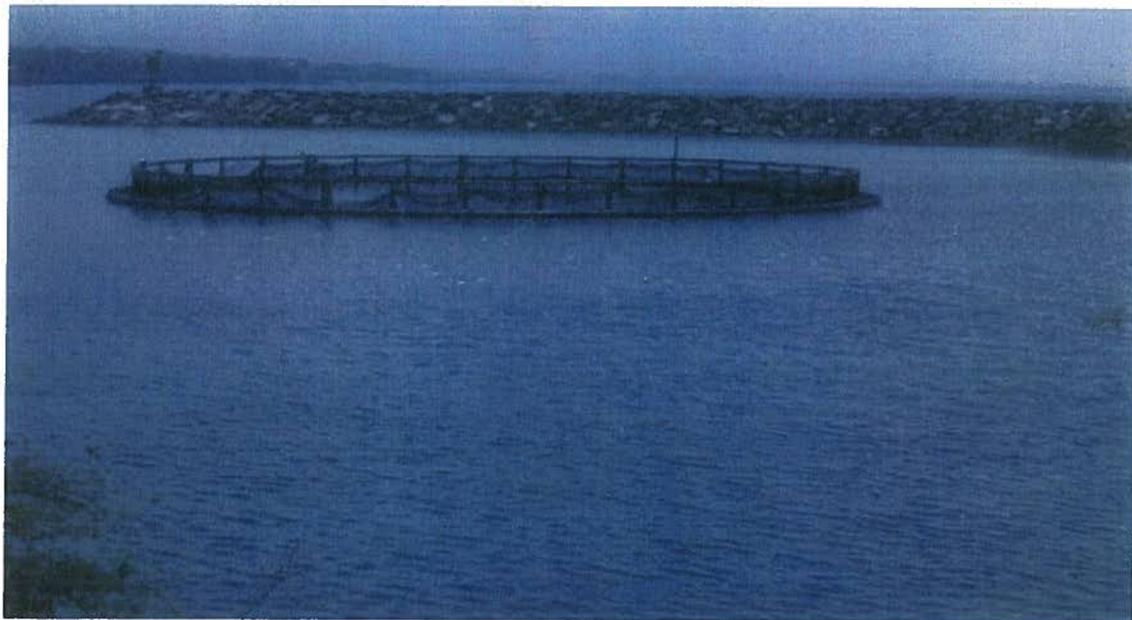


Figure 4. Redeployed net pen with yellow Pelican floats marking damaged coral heads.

- At each float, [REDACTED] submerged to inspect the coral head. If damage to coral was evident, the spot was numbered and photographed. Two cameras were initially used in this documentation, but problems shortly developed with one of them and it was removed from service. On the surface, GPS coordinates were taken by [REDACTED] and hand-recorded by [REDACTED]. Upon completion of the photography and GPS recording each float was then reeled up by [REDACTED].
- After all coral had been inspected and each float retrieved, [REDACTED] dove in the new area occupied by the net pen. They did not find any coral within the vicinity of the net pen.
- [REDACTED] swam over and inspected the southeastern-most mooring line, finding it still attached to the large mooring block previously observed (April 1, 2010). The block was still slightly tilted. Dead, broken coral heads were still next to the block.
- [REDACTED] then swam under the area of the net pen, finding the bottom net to be well above the silty substrate.
- As [REDACTED] each made their way around the net pen and back along the coral rich areas, no further broken coral was observed. Neither [REDACTED] observed any coral damage outside the initial survey area.

A total of 28 instances of coral damage were recorded in the linear survey with GPS coordinates and photographs. Due to poor visibility this is likely somewhat of an underestimation of actual coral damage. Three categories of damage were found:

1. "Fingers", or protrusions, of *Porites compressa* and *Montipora capitata* were broken off or leveled usually evidenced by white break marks dusted over with fine sediment. These breaks were not yet overgrown by algae (Figure 5),
2. Coral heads, primarily *Porites lobata*, were dislodged and rolled onto their sides, into the soft sediment resulting in the death of the coral on the underside of the head (Figure 6),
3. Coral colonies with leveled, dead tops were also observed. Dark materials resting on top of dead coral were indicative of direct contact with fouled netting (Figure 7).

Table 1 lists the coordinates of the 28 coral heads found to be damaged in the KSBH. Photos from April 01 and April 08, 2010 are contained on CDs which were submitted previously.

EXHIBIT 4e



Figure 5. Recently broken fingers of the rice coral *Montipora capitata*.



Figure 6. Toppled head of the lobe coral *Porites lobata*.

EXHIBIT 4f



Figure 7. Head of rice coral, *Montipora capitata* with upper dead surface.

Table 1. Coordinates of net pen location (04/01/10) and impacted coral heads (04/08/10).

Site #	Latitude	Longitude
Net pen boundaries		
WPT 072 net pen boundary	N 20.02847°	W 155.82921°
WPT 073 net pen boundary	N 20.02863°	W 155.82924°
WPT 074 net pen boundary	N 20.02875°	W 155.82896°
WPT 075 net pen boundary	N 20.02875°	W 155.82896°
Damaged Corals (Image #)		
1	N 20.02857°	W 155.82900°
2	N 20.02858°	W 155.82901°
3	N 20.02857°	W 155.82906°
4	N 20.02860°	W 155.82906°
5	N 20.02863°	W 155.82902°
6	N 20.02865°	W 155.82910°
7	N 20.02864°	W 155.82914°
8	N 20.02864°	W 155.82913°

EXHIBIT 4g

9	N 20.02863°	W 155.82914°
10	N 20.02863°	W 155.82912°
11	N 20.02868°	W 155.82909°
12	N 20.02867°	W 155.82911°
13	N 20.02870°	W 155.82909°
14	N 20.02869°	W 155.82908°
15	N 20.02867°	W 155.82908°
16	N 20.02869°	W 155.82906°
17	N 20.02873°	W 155.82908°
18	N 20.02870°	W 155.82905°
19	N 20.02868°	W 155.82904°
20	N 20.02866°	W 155.82905°
21	N 20.02866°	W 155.82902°
22	N 20.02868°	W 155.82902°
23	N 20.02870°	W 155.82899°
24	N 20.02864°	W 155.82903°
25	N 20.02865°	W 155.82901°
26	N 20.02866°	W 155.82901°
27	N 20.02858°	W 155.82895°
28	N 20.02857°	W 155.82897°

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAROOLAWA ISLAND RESERVE COMMISSION
LAND
STATE PARKS

NOTICE OF ALLEGED VIOLATION & ORDER

REF:OCCL:AB

Violation: HA-10-23

CERTIFIED MAIL RETURN RECEIPT
7007 0710 0003 9995 4986

JUN 15 2010

Neil Sims
Kona Blue Water Farms
P.O. Box 4239
Kailua-Kona, Hawai'i 96745

SUBJECT: Alleged Conservation District Violation of Coral Damage at Kawaihae Small Boat Harbor, South Kohala, Hawai'i

Dear Mr. Sims:

The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) received a complaint regarding an alleged violation (coral damage) in Kawaihae Small Boat Harbor, South Kohala, Hawai'i. The alleged violation appears to be located in the Conservation District, Resource subzone, which is under the jurisdiction of the State of Hawai'i.

On April 1, 2010, DLNR staff observed a large, net pen floating in the northwest part of Kawaihae Small Boat Harbor. Staff inspected the site and found the net pen was residing over live coral. Staff notes that the subject net pen had caused damage to corals. The anchor lines for the net pen were secured to large, circular blocks with chain links.

On April 6, 2010, a representative from Kona Blue was contacted by DLNR staff in which he informed the DLNR staff that Kona Blue did not have a permit to have the net pen moored at Kawaihae or to be moved from Keāhole Point to Kawaihae. On April 7, 2010, the net pen was moved into deeper water in the south basin at Kawaihae Small Boat Harbor.

On April 8, 2010, DLNR staff returned to assess coral damage within the northwest harbor area previously occupied by the net pen. We are currently reviewing the information provided to us by our various personnel.

EXHIBIT 5a

This letter serves as a formal Notice of Alleged Violation & Order. This matter will be presented to the BLNR as an alleged violation pursuant to Hawai'i Revised Statute (HRS) Chapter 183C-7 and Hawai'i Administrative Rules (HAR) §13-95-70 and §13-95-71.

Once the Department completes its investigation of this matter, a report will be prepared and presented to the Board of Land and Natural Resources (BLNR) at a date, time, and place to be announced. You will be provided with an advanced copy of the staff report for your information and use.

Should you have any questions regarding this matter, contact Audrey Barker of our office at (808) 587-0377 or audrey.t.barker@hawaii.gov.

Sincerely,



Laura H. Thielen, Chairperson
Department of Land and Natural Resources

c: HDLO
DOCARE
DAR
DOBOR
U.S. Army Corps of Engineers
NOAA

EXHIBIT 5b



June 30th, 2010

Laura Thielen
Chairperson, DLNR
P.O. Box 621
Honolulu, HI 96809

Dear Chairperson,

We wish to respond to your letter dated June 15th (r.e. Violation HA-10-23), where you indicate that we are in violation of HRS 183C-7 and HAR 13-95-70 and 13-95-71. Your letter gives Kona Blue notice of an alleged violation (coral damage) in Kawaihae Small Boat Harbor (SBH), and asserts that an unnamed representative of Kona Blue informed DLNR staff that the company did not have a permit to moor the net pen in the SBH.

As you are aware, Kona Blue is a company that is founded on a deep commitment to improving mankind's relationship with the ocean. Our primary mission is to develop alternative sources of seafood through sustainable open ocean mariculture, so that we can reduce overall commercial fishing pressure in Hawaii, and globally. However, we are also marine biologists and aquaculturists that spend a lot of time in, on and under the water in Kona. We therefore like to believe that we share in an ocean ethos that advocates for – and demonstrates – greater sensitivity to environmental issues in our waters.

We are therefore deeply pained by the circumstances about which your letter refers. We believed that we were adhering to all the requirements for obtaining permits and exercising due caution in the temporary mooring of this net pen in Kawaihae SBH. The Kawaihae DOT Harbor Master, Elton Sukanuma, had originally recommended that we enquire about this site for temporary storage of the net pen. We had then obtained permission from Nancy Murphy, Hawaii Island Manager for DOBOR, prior to mooring the net pen at this site.

We had secured the net pen with two large concrete anchors and chain (and two mooring lines attached to two other large steel structures already in the SBH). One of the concrete anchors was on sand; the other was on coarse rubble. If we had been made aware of any possibility of causing any damage to coral or other marine life by these actions, then we would absolutely not have moored it at that site. Our intention was only to secure the pen in the harbor in a manner which did not impede navigation, and to ensure that the pen did not come loose and cause damage to the reef or to vessels.

We believe that the extent of the coral damage claimed in the Staff report is perhaps questionable. Coral damage could only have been inflicted by the pen at two points: (a) where the concrete anchor was sited on the rubble, and (b) where the net was sagging towards the middle of the pen, and might possibly have touched coral at the central point of the pen at low tide. There is no other mechanism by which coral damage could have been caused by the net pen or anchors.

P.O Box 4239 Kailua-Kona, Hawaii 96745-4239 Ph: 808-331-1188 Fax: 808-331-8689

EXHIBIT 6a

When I inspected the net pen on April 7th, the sagging center of the net was close to a coral colony, but was not touching the coral colony. An independent public observer (Gunner Mench) reported to West Hawaii Today that he "visited the site of the pen late Tuesday afternoon and said 'there is nothing on the reef anywhere in the harbor area" that he could see." (<http://www.westhawaii.com/articles/2010/04/07/local/local04.txt>)

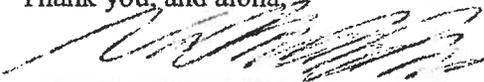
Regardless of the extent of the alleged damage, if any coral damage has occurred either because of the location of the pen, or because it had created an 'attractive nuisance' to the public, then we believe that the best solution for us all is to work together to find some mechanism for remediation or restoration of the site.

We would therefore like to offer our best efforts to work with whatever agency you deem appropriate, to make any and all necessary repairs, or to provide some other mitigating solution. We would also like to offer to make a donation of cash, in-kind services or time commitment by myself and my staff to help with marine conservation, natural resources protection or education services in or around Kawaihae community. We would welcome your suggestions as to how and where these efforts might best be applied.

One solution might be our donation of boat and diver time to remove the sundry other steel and concrete refuse that has been deposited underwater throughout the Kawaihae Harbor SBH area: we have the vessels and the diving crews that could safely and readily undertake such a clean-up. Another remediation/mitigation solution might be to relocate coral fragments from the mooring lines and hardware on the open ocean farm site at Keahole, and transplant them to sites either near the Kawaihae SBH, or to some other location on the Kona Coast. This relocation exercise might provide useful research information and improve our collective understanding for future transplantations.

Again, we offer our sincerest apologies to you and to the community for whatever damage may have occurred. We would hope that this matter could be resolved expeditiously, and to the ultimate betterment of the reefs and oceans of Hawaii.

Thank you, and aloha,



Neil Anthony Sims
Co-Founder, V.P. Research

cc. Audrey Barker, OCCL, DLNR
U.S. Army Corps of Engineers, Engineering Dist. CEPOH-EC-R, Building 230
Fort Shafter, Hawaii 96858-5440
NOAA National Marine Fisheries Service, 1601 Kapiolani Blvd., Suite 1110 Honolulu,
Hi 96814-4700

EXHIBIT 66