STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Aquatic Resources Honolulu, Hawaii 96813

December 8, 2022

Board of Land and Natural Resources State of Hawaii Honolulu, Hawaii

Subject: Enforcement Action against Anthony Hodgson and 2G Vessel Owner

Limited for Alleged Stony Coral and Live Rock Damage Resulting from the September 29-30, 2021 *Endless Summer* Anchoring Incident within

the Kailua Bay Fisheries Management Area, Island of Hawaii.

Summary: This submittal requests the Board of Land and Natural Resources find that

Anthony Hodgson and 2G Vessel Owner Limited violated Hawaii Administrative Rules §§ 13-95-70 and -71 by breaking and damaging approximately 578 specimens of stony coral and two specimens of live rock when the vessel, *Endless Summer*, anchored within the Kailua Bay Fisheries Management Area, island of Hawaii, on September 29, 2021. To compensate the State of Hawaii for the damage to natural resources on public lands and the cost of investigation, DAR recommends that the Board approve the proposed administrative penalty of \$261,281.37.

Date of

Incident: September 29-30, 2021

Against: Anthony Hodgson

1534 NE 17th Terrace

Fort Lauderdale, FL 33304

&

2G Vessel Owner Limited

C/O Campbells Corporate Services Limited Floor 4, Willow House, Cricket Square

P.O. Box 268

George Town, Cayman Islands

Location of

Incident: Within Kailua Bay Fisheries Management Area, island of Hawaii

GPS Coordinates: 19.63353°, -155.99929°

I. Introduction

From the afternoon of September 29, 2021 through the morning of September 30, 2021, a large yacht named *Endless Summer* was anchored in Kailua Bay on the island of Hawaii. Upon receiving reports of extensive coral damage in the vicinity of the *Endless Summer*'s anchor and chain, staff members from the Division of Aquatic Resources ["DAR"] and the Division of Boating and Ocean Recreation ["DOBOR"], along with an officer from the Division of Conservation and Resources Enforcement ["DOCARE"], visited the site to speak with the captain of the yacht and inspect for any damage to the underlying reef. DAR divers observed *Endless Summer*'s anchor chain causing extensive damage to the reef. When the captain and crew were informed of the situation, *Endless Summer* immediately pulled anchor and moved to deeper water to reduce the likelihood of further damage to the reef.

On October 1, 2021, DAR staff members returned to the anchorage site to conduct a full assessment of the damage to the reef. Coral and live rock damage was surveyed systematically using transect tape, photographs, 50cm scale bars, sketches, and a visual census. The DAR team documented extensive damage to the reef, including 578 coral colonies and two specimens of live rock. DAR's Final Report is attached as **Exhibit A**. ¹

DAR recommends that the Board of Land and Natural Resources ["Board"] approve the proposed administrative penalty of \$261,281.37 to compensate the State of Hawaii for damage to natural resources on public lands and the cost of investigation regarding the anchoring incident.

II. FACTUAL BACKGROUND

A. Endless Summer

Endless Summer is a 164-foot (50-meter) grey yacht built in 2017 and weighing approximately 500 tons. At the time of the incident, Endless Summer was captained by Anthony Hodgson ["HODGSON"]. Endless Summer is owned by 2G Vessel Owner Limited and registered in the Cayman Islands with IMO number 9727948. A copy of Anthony Hodgson's Application for Temporary Mooring Permit containing this information is attached as **Exhibit B**.²

B. The September 29-30, 2021 incident

On September 29, 2021, at approximately 17:00, DOBOR agent Tania Taitano ["TAITANO"] texted DAR Aquatic Biologist Nikki Smith ["SMITH"] informing her that a large yacht named *Endless Summer* was anchored in Kailua Bay. TAITANO informed SMITH that the Atlantis Adventures submarine company had traversed past *Endless Summer's* anchor earlier in the day and had observed extensive coral damage to the underlying coral reef caused by the anchor.

¹ Endless Summer Anchor Damage: Multi-agency response and injury assessment, Kailua Bay Fisheries Management Area, Division of Aquatic Resources, September 2021.

² Application of Anthony Hodgson for Temporary Mooring Permit, Division of Boating and Ocean Recreation, dated 9/29/2021 (personal information redacted)

On September 30, 2021 at approximately 06:30, DAR Aquatic Biologist Chris Teague ["TEAGUE"] drove to Kailua Bay to take photos of *Endless Summer* and pinpoint the vessel's exact location. TEAGUE assembled a team of DAR Kona staff members for a reconnaissance mission and contacted TAITANO to enlist support from DOBOR. After discussion, they decided a combined team from DAR, DOBOR, and DOCARE would launch DAR's research vessel to inspect the damaged area and talk to the captain and crew.

At approximately 09:30 that morning, TEAGUE met with DAR Kona staff members Ashley Pugh ["PUGH"] and Nate Hayes ["HAYES"], DOCARE officer Matt Gutierrez ["GUTIERREZ"], and DOBOR staff member Bono Hauanio ["HAUANIO"] at Honokōhau Harbor to prepare gear, coordinate a response, and launch DAR's research vessel.

At approximately 10:00, the team arrived in Kailua Bay where *Endless Summer* was still anchored. HAUANIO drove the DAR vessel to the bow of *Endless Summer* and dropped PUGH and TEAGUE into the water. PUGH and TEAGUE wore SCUBA gear. HAYES recorded the GPS coordinates of the vessel, and Officer GUTIERREZ boarded *Endless Summer* to speak with the captain and crew about the situation.

PUGH and TEAGUE descended into the water, following *Endless Summer*'s anchor chain to a depth of approximately 26 meters (85 feet) where the anchor chain met the seafloor. The divers observed the chain lying across and scraping a large colony of *Porites lobata* coral. The chain extended along the seafloor, and the divers observed the chain wrapped around several smaller coral colonies and lying across a large area of coral reef. The divers observed the anchor chain cinching and demolishing multiple colonies of coral as the chain pulled and tightened from the vessel's movement at the surface.

PUGH and TEAGUE followed the anchor chain westward into deeper water. They observed the chain lying over approximately 20 additional meters of live coral before the substrate turned into a mixture of sand and cobble. The anchor was located in this region at the end of the chain at a depth of approximately 29 meters (95 feet).

When PUGH and TEAGUE resurfaced and boarded the DAR vessel, the team decided the best course of action would be for *Endless Summer* to immediately pull anchor and move into deeper water so as not to cause further damage to the reef. At approximately 12:00, *Endless Summer* pulled anchor and relocated.

C. Ecological assessments of habitat damage

On October 1, 2021, DAR staff members TEAGUE, HAYES, and PUGH returned to the anchorage site to conduct a full biological assessment of the damage caused by *Endless Summer's* anchor and anchor chain. DAR staff member Nikki Smith captained the DAR vessel. The DAR team documented the damage systematically using transect tape, sketches, photographs, 50cm scale bars, and by conducting a visual census. TEAGUE provided a sketch of the area while PUGH and HAYES photographed as much of the damage as possible, using the 50cm scale bars for reference. After the sketch and photographs were complete, all three team members conducted a visual census of all damaged corals and live rock. For each instance of

damage, the divers recorded the species, the size of the breakage, and the size of the affected colony.

The damaged area contained a high level of coral coverage. The three dominant species of coral in the area were *Porites lobata* (lobe coral), *Porites compressa* (finger coral), and *Porites monticulosa* (plate-and-knob coral). The divers observed three other species of coral in the area in lower densities: *Pocillopora meandrina* (cauliflower coral), *Pavona varians* (corrugated coral), and *Montipora capitata* (rice coral). The affected area measured 36 meters in length and 21 meters at its widest point. The divers observed the heaviest damage at the center of the site, south of the sand patch.

The DAR team documented numerous instances of damage including single point breakages, patches of flattened coral beds, abrasions from the scraping of the anchor chain, and dislodged clusters of coral colonies. Many of the dislodged *P. lobata* colonies had been overturned with the live coral tissue facing downwards. Much of the observed damage resulted in a substantial alteration to the structural complexity of the reef in the impacted area. In total, the DAR team documented 578 coral colonies and two specimens of live rock that were damaged, and the team gave detailed counts for each coral species and its size class.

On October 5, 2021, TEAGUE, SMITH, HAYES, and PUGH traveled back to the damage site to attempt to upright and stabilize as many coral fragments and dislodged colonies as possible. The divers focused on righting the largest colonies first, and then stabilized smaller dislodged coral fragments by wedging them into bare areas within the surrounding reef. While the divers did not keep a precise tally of the number of corals stabilized in this way, they estimated that they stabilized hundreds of individual coral fragments and dozens of moderate to large-sized coral colonies.

III. LEGAL AUTHORITY FOR ENFORCEMENT

A. Statutory and regulatory protection of stony coral and live rock

Stony coral and live rock are protected by Hawaii Administrative Rules ("HAR") Title 13, Chapter 95, Sections 70 and 71.

In relevant part, HAR § 13-95-70(a)(1) states that "it is unlawful for any person to take, break, or damage any stony coral." The rules further define "stony coral" as "any invertebrate species belonging to the Order Scleractinia, characterized by having a hard, calcareous skeleton, that are native to the Hawaiian islands." 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 into pieces." *Id.* "Damage" means "to scrape, smother, poison, or otherwise cause any physical or physiological harm to the living portion of a stony coral or live rock." *Id.*

Under HAR § 13-95-71(a)(1), "it is [also] unlawful for any person to take, break, or damage any live rock." "Live rock" is defined as "any natural hard substrate to which marine life is visibly attached or affixed." HAR § 13-95-1.

B. Administrative fines authorized for violations of HAR Title 13, Chapter 95

Section 187A-12.5(c), Hawaii Revised Statutes ["HRS"] provides the administrative penalties for violations relating to aquatic resources,³ including HAR §§ 13-95-70 and 71 (stony coral and live rock), as follows:

- (1) For a first violation, a fine of not more than \$1,000;
- (2) For a second violation within five years of a previous violation, a fine of not more than \$2,000; and
- (3) For a third or subsequent violation within five years of the last violation, a fine of not more than \$3,000.

Section 187A-12.5(e), HRS, also provides that "[i]n addition to subsection (c), a fine of up to \$1,000 may be levied for each specimen of all other aquatic life taken, killed, or injured in violation of subtitle 5 of title 12 or any rule adopted thereunder." The definition of "aquatic life" includes coral as well as all the sessile plant and animal species that are attached to live rock. See HRS §187A-1.

Under HAR § 13-95-2(b)(4), for colonial stony corals such as the colonies damaged in the anchoring event, per-specimen fines may be imposed on the basis of each damaged "head" or "colony" that is less than one square meter in surface area, and for a colony greater than one square meter in surface area, each square meter of colony surface area and any fraction remaining constitutes an additional "specimen."

Under HAR § 13-95-2(b)(5), for live rocks, per specimen fines may be imposed on the basis of each individual live rock or, if the violation involves greater than one square meter of bottom area, each square meter of live rock.

Additionally, HRS § 187A-12.5(a) authorizes the Board "to recover administrative fees and costs . . . or payment for damages or for the cost to correct damages resulting from a violation of" the statutes and rules pertaining to aquatic resources.

IV. APPLICATION OF LAW AND RECOMMENDED FINE

A. Maximum authorized fines

HRS § 187A-12.5 authorizes an administrative fine of \$1,000 for a first-time stony coral damage violation, as well as an additional \$1,000 per coral specimen injured.

³ Section 187A-12.5(b), HRS, specifically addresses violations involving threatened or endangered species. Subsection(c) covers "all other violations."

Given the count of 578 coral colony specimens damaged by *Endless Summer's* anchoring, the maximum administrative fine authorized for stony coral damage would be \$579,000.⁴

HRS § 187A-12.5 authorizes an administrative fine of \$1,000 for a first-time live rock damage violation, as well as an additional \$1,000 per live rock specimen injured.

Given the two specimens of damaged live rock, the maximum authorized administrative fine for live rock damage would be \$3,000.5

HRS §187A-12.5 further authorizes the Board to assess administrative fees and costs, including attorneys' fees relating to a violation of stony coral and live rock protection rules.

B. Factors to be considered in assessing fines

The Board has broad discretion in assessing administrative fines for a natural resource violation. Some of the factors that the Board may take into consideration include the value of the resource damaged, costs for the State to investigate and process the violation, level of damages to the public for whom the State holds a public trust of the resource involved, extent of the respondent's cooperation, and voluntary actions taken by the respondent to mitigate or avoid damages.⁶

1. Applicable Violations

HODGSON and 2G Vessel Owner Limited violated HAR § 13-95-70(a)(1) (damage to stony corals) by causing the anchor and anchor chain of *Endless Summer* to break or damage stony coral by deploying them into the reef ecosystem in the Kailua Bay Fisheries Management Area.

HODGSON and 2G Vessel Owner Limited violated HAR § 13-95-71(a)(1) (damage to live rock) by causing the anchor and anchor chain of *Endless Summer* to break or damage live rock by deploying them into the reef ecosystem in the Kailua Bay Fisheries Management Area.

2. Resource Value

The patch of reef where the *Endless Summer* anchored exists within the Kailua Bay Fisheries Management Area, island of Hawaii. DAR utilizes a set of stony coral and live rock penalty matrices to standardize coral reef and live rock damage valuations based on coral morphology, size, rarity, benthic structure, benthic species composition, and location within a managed area. See **Exhibit C**. These matrices provide a comparable, but more detailed, categorization of stony coral values compared to the coral value table included in the Administrative Penalty

 $^{^4}$ \$1,000 for the violation (damaging coral) + \$578,000 for 578 damaged specimens = \$579,000. See HRS §187A-12.5(c) and (e).

 $^{^5}$ \$1,000 for the violation (damaging live rock) + \$2,000 for 2 da maged specimens = \$3,000. See HRS \$187A-12.5(c) and (e).

⁶ See Haw. Admin. R. §13-1-70

⁷ Exhibit C, Coral Penalty Matrices. These coral and live rock penalty matrices were created by DAR coral reef biologists with expertise in Ha waiian coral and live rock ecosystems, and the matrices have been used by DAR and the BLNR in previous enforcement actions.

Guidelines adopted by the Board on July 22, 2009. They also add live rock values, which were not included in the 2009 Penalty Guidelines. Based on these updated matrices, the value of the damaged resources is as follows:

Stony Coral (each colony constitutes a specimen)

Digiform, non-rare				
Porites compressa	5 - 10 cm	14 colonies x \$75	=	\$1,050
-	10-20 cm	68 colonies x \$150	=	\$10,200
	20-40 cm	26 colonies x \$300	=	\$7,800
	40-80 cm	4 colonies x \$600	=	\$2,400
	80 - 160 cm	8 colonies x \$1,000	=	\$8,000
	160+cm	27(54) ⁸ colonies x \$1,00	00 =	\$54,000
Subtotal P. co	mpressa:			\$83,450
Platelike, non-rare				
Porites monticulosa	10-20 cm	1 colony x \$150	=	\$150
	20-40 cm	3 colonies x \$300	=	\$900
	160+cm	$2(4)^9$ colonies x \$1,000	=	\$4,000
Subtotal P. me	onticulosa:			\$5,050
Massive, non-rare				
Porites lobata	0.1 - 5 cm	26 colonies x \$30	=	\$780
	5-10 cm	38 colonies x \$60	=	\$2,280
	10-20 cm	75 colonies x \$150	=	\$11,250
	20-40 cm	170 colonies x \$300	=	\$51,000
	40 - 80 cm	84 colonies x \$750	=	\$63,000
	80-160 cm	14 colonies x \$1,000	=	\$14,000
	160+cm	$10(20)^{10}$ colonies x \$1,0	00 =	\$20,000
Subtotal P. lo	bata:			\$162,310
Branching, non-rare				
Pocillopora meandri	na 0.1 - 5 cm	2 colonies x \$35	=	\$70
1	10 - 20 cm	1 colony x \$150	=	\$150
Subtotal P. mo		-		\$220
Encrusting, non-rare				
Parona varians	0.1 - 5 cm	1 colony x \$15	=	\$15
I di Gila vai lang	5 - 10 cm	1 colony x \$30	=	\$30
Subtotal <i>P. va</i>		Ι ΙΟΙΟΙΙ Ι Ι ΨΟ Ο		\$45
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⁸ Under HAR §13-95-2(b)(4), for a colony greater than one square meter in surface area, each square meter of colony surface a rea and any fraction remaining constitute an additional specimen. DAR Kona recorded two coral colonies that exceeded one meter in a rea. Therefore, under HAR § 13-95-2(b)(4), these 27 colonies constitute 54 specimens and incur an additional \$27,000 in penalties.

⁹ See Note 9, supra.

¹⁰ See Note 9, supra.

Montipora capitata	0.1 - 5 cm	3 colonies x \$15	=	\$45
Subtotal <i>M. c.</i>	apitata			\$45

Total Stony Coral Value (based on count of 578 colonies): \$251,120

Live Rock (each square meter constitutes a specimen)

Reef Turf/Cyanobacteria	0.19 m ² (1 specimen) x \$60 per specimen ¹¹	=	\$60
Reef CCA – Encrusting	0.03 m ² (1 specimen) x \$800 per specimen	=	\$800
Subtotal Liv	e Rock:		\$860

Total Live Rock Value (based on count of 2 specimens): \$860

TOTAL STONY CORAL VALUE + LIVE ROCK VALUE: \$251,980.00

3. Costs of the investigation itself

DAR staff spent a total of 118 hours conducting surveys, overseeing emergency restoration activities, entering data, analyzing data, and preparing the DAR Impact Assessment Report for a total cost of \$3,999.37. DAR incurred costs of \$3,120 for boat use, \$162 for fuel, and \$170 for SCUBA tanks. DAR staff in Honolulu spent 5 days preparing the submittal for this incident at a rate of \$290 per day, totaling \$1,450. The total value of this staff time and administrative costs was therefore estimated as \$8,901.37 as shown in **Table 1**, below.

Table 1. Staff time and costs for the Endless Summer assessments.

	Unit	Rate	Total
DAR Investigation	86 Hours	\$ 32.16*	\$2,766.08
DAR Report	32 Hours	\$ 38.54*	\$1,233.29
Boat	3 Days	\$ 1,040.00	\$ 3,120.00
Fuel	36 Gallons	\$ 4.50	\$ 162.00
SCUBATanks	20 Tanks	\$ 8.50	\$ 170.00
DAR Submittal	5 Days	\$ 290.00	\$ 1,450.00
Total			\$ 8,901.37

^{*}Average hourly rate (rounded to the nearest cent) based on actual costs

Accordingly, the total administrative cost incurred by the Department in investigating and processing this incident was \$8,901.37.

¹¹ See Exhibit C – Coral Penalty Matrices. Pursuant to the Live Rock Penalty Matrix, damaged live rock within a Fisheries Management Area (FMA) carries a fine of \$60 if the live rock was reef covered in cyanobacteria or turf a lgae and \$800 if the live rock was reef covered in encrusting crustose coralline algae (CCA).

4. Respondent's Cooperation and Voluntary Mitigative Actions

DAR is unaware of any cooperative or mitigative actions by HODGSON or 2G Vessel Owner Limited in relation to the *Endless Summer* anchoring incident.

C. Recommended fines and costs

The Board has broad discretion in assessing administrative fines for a natural resource violation. In 2014, the Board adopted an Administrative Sanctions Schedule to facilitate the standardization of enforcement for violations of aquatic resource laws. This schedule recommends a \$200 fine for the applicable violation and to follow the schedule for each coral colony damaged. Based on the foregoing considerations, DAR recommends fines of \$400 for the two violations, \$251,980.00 for the value of the resource, and administrative costs in the amount of \$8,901.37 for a total assessment of \$261,281.37, as shown in Table 2, below. This figure reflects a conservative estimate of the amount required to compensate the State for the damage to natural resources on public lands and the administrative costs.

Table 2. Summary of fines and costs.

Category of Fines and Costs	Amount
Fines for Violations	\$400
Fines Based on Resource Value	\$251,980.00
Administrative Costs	\$8,901.37
TOTAL	\$261,281.37

V. RECOMMENDATIONS

- 1. That the Board find that Anthony Hodgson and 2G Vessel Owner Limited violated HAR §§13-95-70 and -71 by anchoring their vessel, *Endless Summer*, on coral reef on September 29-30, 2021 and damaged approximately 578 coral colonies and two specimens of live rock; and
- 2. That the Board assess an administrative fine of \$252,380.00 and administrative costs in the amount of \$8,901.37 for a total assessment of **\$261,281.37** against Anthony Hodgson and 2G Vessel Owner Limited to be paid within 60 days of the date of this submittal.
- 3. Other terms and conditions as prescribed by the Chairperson to serve the best interests of the State shall be applicable.
- 4. All recommendations above and terms of the fine schedule or any payment plan shall be subject to review and approval by the Department of the Attorney General.

Respectfully Submitted,

MIL

Brian Neilson, Acting Administrator Division of Aquatic Resources

APPROVED FOR SUBMITTAL:

Sgame Q. Case

Suzanne D. Case, Chairperson Department of Land and Natural Resources

Endless Summer anchor damage: multi-agency response and injury assessment, Kailua Bay Fisheries Management Area

Field investigative report





Division of Aquatic Resources September 2021

Report compiled by:

Chris Teague M.S., DAR Aquatic Biologist
Nicole Smith, DAR Aquatic Biologist
Ashley Pugh M.S., DAR/HCRI Habitat and Fish Monitoring Planner
Nate Hayes, DAR/HCRI Habitat and Fish Monitoring Technician

Response Dates: 30 Sept. 2021; 1 Oct. 2021; 5 Oct. 2021

Team: *Initial response*:

 Chris Teague, Ashley Pugh, Nate Hayes, Matt Gutierrez (DOCARE), Bono Hauanio (DOBOR)

Follow-up responses:

• Chris Teague, Ashley Pugh, Nate Hayes, Nikki Smith

Location: In the waters within the Kailua Bay Fisheries Management Area.

• GPS coordinates: 19.63353°, -155.99929°

Vesselinfo:

Captain/Deck Officer: Anthony Hodgson

Vessel name and port of call: Endless Summer; George Town, Cayman Islands Vessel description: 164 ft Christensen/Delta yacht; grey hull, white cabin

Vessel owner: 2G Vessel Owner Limited

Description of initial response:

On September 29, 2021 at approximately 1700, Division of Aquatic Resources (DAR) Aquatic Biologist Nikki Smith received a text message from Division of Boating and Ocean Recreation (DOBOR) harbor agent Tania Taitano about a large yacht named the *Endless Summer* that was anchored in Kailua Bay. Taitano said that the Atlantis Adventures submarine company had traversed past the anchor location earlier in the day and reported extensive coral damage.

At around 0630 on September 30th, DAR Aquatic Biologist Chris Teague drove to the shoreline at Kailua Bay to scout out the vessel's exact location and take initial photos. The *Endless Summer* was still anchored in the bay at this time (Figures 1 and 2). Teague then called other DAR Kona team members to assemble a reconnaissance team. Teague also contacted Taitano to discuss the issue and gather support from DOBOR. After some discussion, it was decided that a combined team from DAR, DOBOR, and the Division of Conservation and Resource Enforcement (DOCARE) would launch DAR's research vessel for an initial reconnaissance of the damage as soon as possible.

At 0930 that morning, Teague met with DAR Kona staff members Ashley Pugh and Nate Hayes, DOCARE officer Matt Gutierrez, and DOBOR staff member Bono Hauanio at the DAR office at Honokōhau Harbor to prepare gear, coordinate a response, and launch the boat.



Figure 1: Vessel Endless Summer anchored in Kailua Bay. Photo taken from Kailua Pier.



Figure 2: Vessel Endless Summer anchored in Kailua Bay. Photo taken from Kailua Pier.

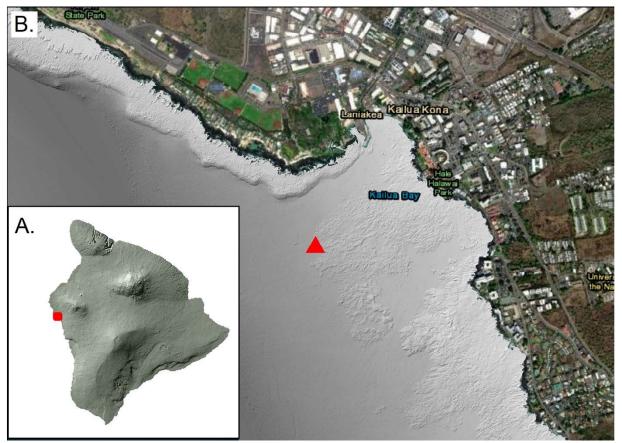


Figure 3: A) Map of Hawai'i Island. Red square indicates the general location of Kailua Bay. B) Bathymetric map of Kailua Bay showing seafloor structure surrounding the damage site. The red triangle indicates the *Endless Summer's* location on Sept. 30, 2021.

At approximately 1000, the recon team arrived in Kailua Bay and approached the vessel, which was still at anchor in the Bay (Figure 3). Pugh and Teague donned SCUBA gear to gather initial documentation of any coral damage. Hauanio drove the DAR vessel close to the bow of the *Endless Summer* and dropped the divers off. Pugh and Teague descended along the vessel's anchor chain to a depth of ~26m (85 ft) where the chain contacted the seafloor. Divers observed a portion of the chain bobbing up and down on a large (1.5m diameter) colony of *Porites lobata* (lobe coral; Figure 4), scraping the living tissue from the colony. The chain extended along the seafloor and was observed wrapping around several smaller colonies (Figure 5) and subsequently laying across a large swath of live coral reef. As the divers descended, they witnessed the section of chain that was wrapped around several colonies cinch tighter from the pull of the vessel at surface and demolish multiple of these live corals and the invertebrates living within the reef structure (video available upon request).

The divers then followed the anchor chain due West into deeper water. The chain draped over roughly 20 meters of live reef before the substrate turned to a mixture of sand and cobble with a few low reef outcroppings. The anchor was located at the chain's end in this region at a depth of 29 meters (95 ft; Figure 6). Additional areas of fresh coral damage (bright white skeletal structure visible; Figure 7) were observed across a wide swath of reef on either side of the anchor chain.

While Teague and Pugh were underwater, Hayes recorded the GPS coordinates of the vessel location and Officer Gutierrez boarded the *Endless Summer* to speak with the crew about the situation. Once the divers were back on board the DAR vessel, the response team decided that it would be best for the *Endless Summer* to immediately pull anchor and move to a deeper anchorage in order to reduce any further damage to the reef. The *Endless Summer* began to pull anchor around 1200, soon after this was relayed to them.

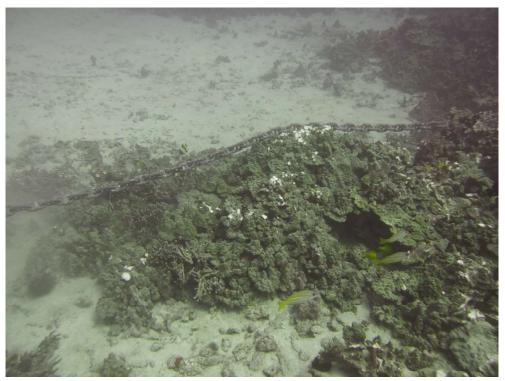


Figure 4: Anchor chain draped over a large lobe coral (*Porites lobata*). Divers observed the chain bobbing up and down on top of this coral actively causing tissue and structural damage.



Figure 5: Segment of chain wrapped around numerous coral colonies. Many of these colonies were dislodged moments later as the loop cinched closed. The black and white scale bar in the upper middle is 50cm long with 10cm increments.



Figure 6: Anchor at a depth of $^{\sim}29$ meters snagged on a piece of low-lying reef.



Figure 7: Section of damaged reef. Bright white spots are indicative of recent coral damage.

Description of follow-up responses:

On October 1, 2021, DAR staff members Chris Teague, Nikki Smith, Nate Hayes, and Ashley Pugh returned to the site to conduct a full assessment of the damage. The assessment was conducted by Teague, Pugh, and Hayes. Smith captained the DAR vessel and provided safety support. Coral and live rock damage was surveyed systematically. After a brief circuit of the damaged area, a transect tape (50m measuring reel) was laid out along the longest axis of the affected region. A second transect tape was laid perpendicular to the first along the widest portion of the damage zone. These allowed divers to measure the size of the impacted area and they provided reference points to ensure the entire area was surveyed appropriately.

Teague began making a sketch of the overall region while Pugh and Hayes photographed as many instances of coral and live rock damage as possible, utilizing 50cm scale bars (Figures 9-12; Appendix A). After the sketch and photo documentation were complete, Teague, Hayes, and Pugh conducted a visual census of all damaged corals and live rock. For each instance of damage, divers recorded the species, the size of the breakage itself, and the size of the affected colony.

The reef in the damaged area contained a high level of live coral coverage. The dominant coral species were *Porites lobata* (lobe coral), *P. compressa* (finger coral), and *P. monticulosa* (plate-and-knob coral). Other species were also present, though at lower densities. The damage was spread over a broad swath of this reef with the majority concentrated along the reef bordering a sand patch. The affected area measured 36 meters at the longest axis and 21 meters at its widest. The heaviest level of damage was found at the center of the site, south of the sand patch (Figure 8).

The three dominant coral species noted above were also the main species exhibiting damage, however colonies of *Pocillopora meandrina*, *Pavona varians*, and *Montipora capitata* were also affected. Instances of damage ranged from single point breakages (Figure 9) to patches of flattened *P. compressa* beds (Figure 10) to dislodged clusters of *P. lobata* colonies (Figure 11). Many of the dislodged *P. lobata* colonies were found overturned with the live coral tissue facing downwards.

Several of the largest colonies of *P. lobata* were observed laying overturned in sand. These appeared to be dislodged from the reef and dragged into the sand patch (Figure 8, labelled points B and C; Figure A4) by the anchor chain. The large *P. lobata* colony noted during the initial reconnaissance dive was still affixed to the substrate, however it suffered extensive surface damage (Figure 8, labelled point A; Figure 12). It is important to note that much of the observed damage resulted in a substantial alteration to the structural complexity of the reef in the impacted area. This reduces the ability of corals to provide adequate habitat for fishes and invertebrates and therefore has serious implications for the long-term health of this reef ecosystem.

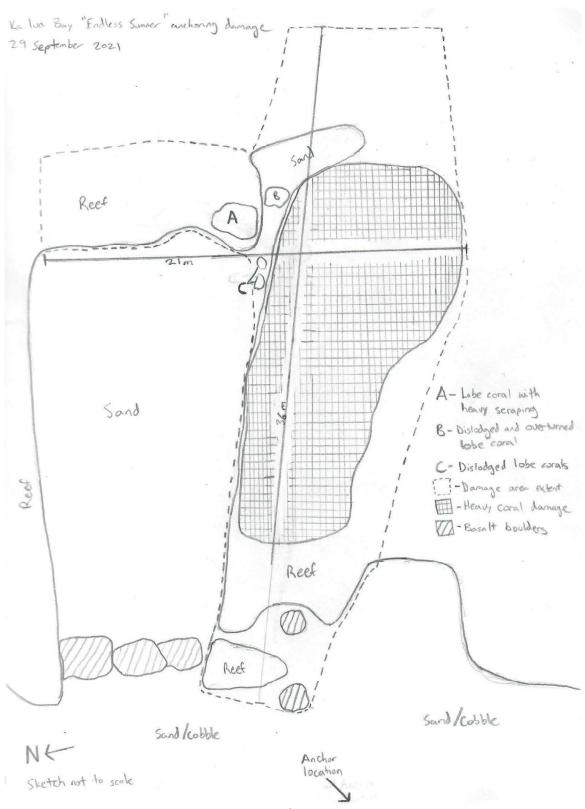


Figure 8: Site overview sketch depicting the main reef areas, a large sand patch along the northern edge of the damage area, and a large area of particularly heavy coral damage at the center of the site.



Figure 9: *P. lobata* colony showing a single point breakage indicated by the patch of white coral skeleton below the black portion of the scale bar. The black and white scale bar segments measure 10cm.



Figure 10: *P. compressa* colony with severe structural damage. Scale bar is 50cm long with 10cm increments.

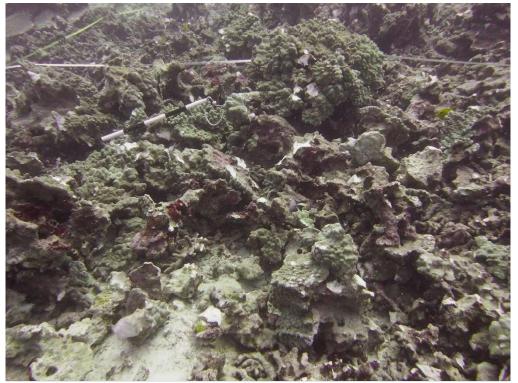


Figure 11: Cluster of numerous *P. lobata* colonies that were dislodged after a loop in the anchor chain cinched closed around them.



Figure 12: Large *P. lobata* colony that sustained structural damage and extensive abrasion due to the anchor chain "bobbing" up and down on the colony.

A total of 578 coral colonies and 0.22 m² of live rock were damaged. Table 1 lists a full accounting of damaged resources. Counts are given for each species and size class of damaged coral colony. These counts were further broken down in Appendix B by the percent of each colony that was damaged. Percentage values were calculated by dividing the size of the breakage itself by the size of the overall colony. Importantly, a low percentage of visible damage does not necessarily indicate a proportional reduction in the ecosystem services provided by the colony. Even colonies that show relatively small sizes of visible damage may have deeper structural damage that is not readily apparent. Damage of this nature could result in the reduced long-term stability of the colony.

Table 1: Coral species, count of damaged colonies, and damaged colony size

Species	Count of Damaged Colonies	Colony size
Porites lobata	26	0.1 – 5 cm
	38	5.1 – 10 cm
	75	10.1 – 20 cm
	170	20.1 – 40 cm
	84	40.1 – 80 cm
	14	80.1 – 160 cm
	10	> 160 cm
Porites compressa	14	5.1 – 10 cm
	68	10.1 – 20 cm
	26	20.1 – 40 cm
	4	40.1 – 80 cm
	8	80.1 – 160 cm
	27	> 160 cm
Porites monticulosa	1	10.1 – 20 cm
	3	20.1 – 40 cm
	2	> 160 cm
Pocillopora meandrina	2	0.1 – 5 cm
	1	10.1 – 20 cm
Pavona varians	1	0.1 – 5 cm
	1	5.1 – 10 cm
Montipora capitata	3	0.1 – 5 cm
Total coral colonies damaged	578	
Live Rock- Reef with turf algae	0.19 m ²	
Live Rock- Reef with encrusting CCA	0.03 m ²	
Total live rock damaged	0.22 m ²	

Following the damage census, Pugh took additional photos within a segment of the reef exhibiting heavy damage for a technique called photogrammetry, which allowed for the creation of a high resolution 3-dimensional model of the seafloor (Figure 12). This model was used to give spatial context to specific damaged colonies and will allow DAR biologists to revisit the site in the future to determine any level of recovery or further reduction in reef health.

On October 5, 2021, Teague, Smith, Hayes, and Pugh travelled back to the site to attempt to upright and re-stabilize as many coral fragments and dislodged colonies as possible. Teague, Hayes, and Pugh conducted the in-water work with Smith providing vessel and safety support. Re-stabilization efforts such as these do not immediately rebuild coral colonies to their former level of complexity and ecosystem services, however they may improve the ability of coral colonies to re-affix to the substrate via continued growth. Additionally, righting and re-stabilization of live coral fragments and colonies that were overturned in the sand reduces the chance of coral tissue becoming smothered by sand, which can occur within days. There was evidence that live tissue loss due to smothering was already occurring in the time between initial damage and response.

Divers began their re-stabilization efforts by focusing on many of the largest colonies first. Damaged corals were first righted to ensure that the highest amount of live coral tissue was left facing upwards for light exposure. Dislodged colonies and fragments were then wedged into bare areas within the surrounding reef in order to keep them stable. While a precise tally of all fragments righted and restabilized was not kept, hundreds of individual fragments and coral colonies were wedged in place, including dozens of moderate (20-50cm) and large-sized (>50cm) *P. lobata* colonies.

The divers initially left a 10×10 meter patch untouched in one of the most heavily impacted areas. This allowed Pugh to conduct an additional fine-scale photogrammetry survey to depict these corals as they were prior to stabilization. This same 10×10 meter plot was repeated after the corals within it were restabilized. These two resulting 3-D models will allow DAR Kona biologists to examine the initial effect of the stabilization and righting efforts.

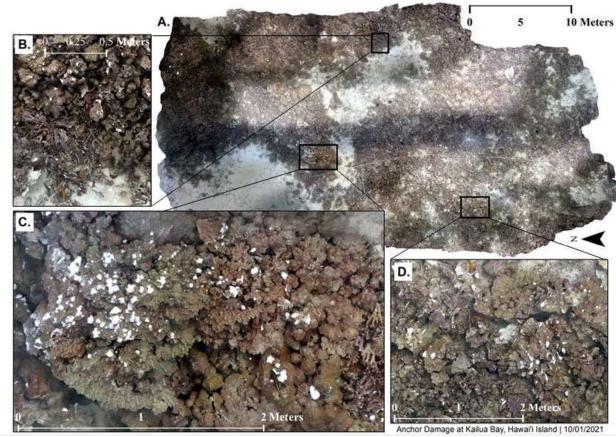


Figure 13: Photogrammetry model (orthomosaic image) of a portion of the overall anchor damage extent. Imagery for the model was taken on Oct. 1, 2021, one day after the anchor was removed from the reef. Orthomosaic imagery shows: A) an overall view of a large area of reef heavily damaged from the event, B) a close-up of broken *P. lobata* and *P. compressa* colonies, C) two large mounding coral colonies with severe abrasion from the anchor chain, and D) multiple large *P. lobata* colonies broken into loose fragments.

Appendix A:



Figure A1: Several *P. lobata* colonies that were dislodged and overturned on the reef. Note the difference in the orientation of live tissue between separate colonies as well as the visible bright white skeletal material, both of which are indicative of recent damage.



Figure A2: Patch of damaged P. compressa showing numerous individual broken "fingers".



Figure A3: Overturned ~50cm *P. lobata* colony. Many of the broken colonies observed were between 20 and 80cm.



Figure A4: Large (>50cm) *P. lobata* colony that was dislodged and overturned in a small sand patch. Divers successfully righted this colony such that the live tissue was oriented upwards.

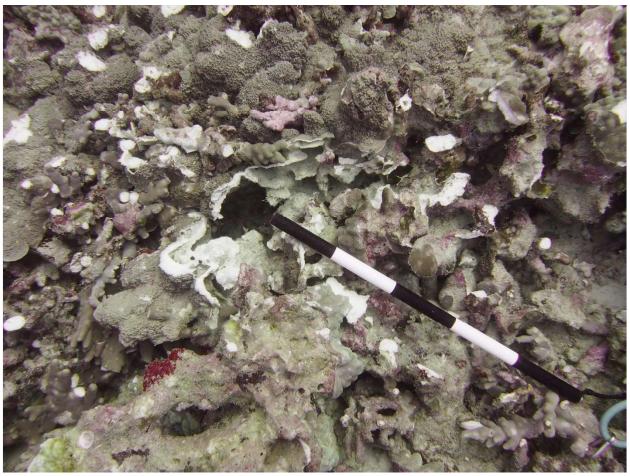


Figure A5: *Porites monticulosa* colony with multiple distinct breakages. This was one of two massive (>160cm) *P. monticulosa* colonies that sustained damage.

Appendix B:

Table B1: Coral species, count, breakage size, colony size, and damage percent of broken corals observed within the damage area.

Species	Damaged	Breakage size	Colony size	% Damaged
Devitos laborto	colony count	0.1 5000	0.1.5.000	100%
Porites lobata	26 18	0.1-5cm 0.1-5 cm	0.1-5 cm 5.1-10 cm	50%
			5.1-10 cm	
	20	5.1-10 cm		100%
	1	0.1-5 cm	10.1-20 cm	25%
	68	5.1-10 cm	10.1-20 cm	50%
		10.1-20 cm	10.1-20 cm	100%
	7	0.1-5cm	20.1-40 cm	13%
	9	5.1-10 cm	20.1-40 cm	25%
	7	10.1-20 cm	20.1-40 cm	50%
	147	20.1-40 cm	20.1-40 cm	100%
	6	5.1-10 cm	40.1-80 cm	13%
	5	10.1-20 cm	40.1-80 cm	25%
	7	20.1-40 cm	40.1-80 cm	50%
	66	40.1-80 cm	40.1-80 cm	100%
	5	10.1-20 cm	80.1-160 cm	13%
	1	20.1-40 cm	80.1-160 cm	25%
	4	40.1-80 cm	80.1-160 cm	50%
	4	80.1-160 cm	80.1-160 cm	100%
	2	0.1-5cm	>160 cm	2.5%
	2	10.1-20 cm	>160 cm	10%
	3	20.1-40 cm	>160 cm	20%
	3	>160 cm	>160 cm	100%
Porites	3	0.1-5 cm	5.1-10 cm	50%
compressa	11	5.1-10 cm	5.1-10 cm	100%
	3	0.1-5 cm	10.1-20 cm	25%
	21	5.1-10 cm	10.1-20 cm	50%
	44	10.1-20 cm	10.1-20 cm	100%
	7	0.1-5cm	20.1-40 cm	13%
	2	5.1-10 cm	20.1-40 cm	25%
	9	10.1-20 cm	20.1-40 cm	50%
	8	20.1-40 cm	20.1-40 cm	100%
	2	20.1-40 cm	40.1-80 cm	50%
	2	40.1-80 cm	40.1-80 cm	100%
	5	0.1-5cm	80.1-160 cm	3%
	3	80.1-160 cm	80.1-160 cm	100%
	27	>160 cm	>160 cm	100%

Table B1, continued:

Species	Damaged colony count	Breakage size	Colony size	% Damaged
Porites	1	10.1-20 cm	10.1-20 cm	100%
monticulosa	1	10.1-20 cm	20.1-40 cm	50%
	2	20.1-40 cm	20.1-40 cm	100%
	2	40.1-80 cm	>160 cm	40%
Pocillopora	2	0.1-5cm	0.1-5 cm	100%
meandrina	1	10.1-20 cm	10.1-20 cm	100%
Pavona varians	1	0.1-5cm	0.1-5cm	100%
	1	5.1-10 cm	5.1-10 cm	100%
Montipora	3	0.1-5cm	0.1-5cm	100%
capitata				



APPLICATION FOR TEMPORARY MOORING PERMIT

Division of Boating and Ocean Recreation Department of Land and Natural Resources, State of Hawaii

Honokohau Small Boat Harbor, State of Hawaii 74-380 Kealakehe Parkway Kailua-Kona, HI 96740

Phone: (808) 327-3685 Fax: (808) 327-3675

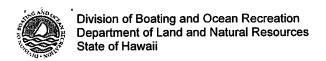
1. PERMIT INFORMATION		areae.	gi erd eressi		
Requested Start Date: 09 /2	9 /2021 Request	ed End Date:	10 / 02 / 2021		OFFICE USE ONLY
Island (✔ one) : ☑Hawaii	Kauai □Lanai □Ma	ui Molc	kai 🗌 Oahu		Date Received:
Location: Kona, Puako.					Received By:
Number of Persons Staying	Aboard: 9 crew	Shower Cards	s/Gate Keys: □Yes	✓No	
2. APPLICANT INFORMATI	ON				
Name (Last): Hodgson	(Fi	rst): Anthony	(N	1.I.): J	Suffix: Mr.
Date of Birth:	Gender: Female	✓Male O	ecupation: Deck Office	er - Master	
Employer: Self Employed - N	Marine Contractor - Bonza M	larine Inc.			
Phone (business): 19546489	917 Phone (home)	: N/A	Phone (mobile): Same	as business
Mailing Address: 1534 NE 17	7th Terrace				Apt #:
Address Line 2:		I.P. September I. Super		Country:	
City: Fort Lauderdale	State: Flori	da	Zip Code: 33	304	
Residence Address: As Above	9				Apt #:
Address Line 2:				Country:	
City:	State:		Zip Code:		
3. NAMES AND INFORMAT	TON FOR PERSONS STAYIN	NG ON BOAR	D		
Please provide the following	g information for each perso	n staying on	board the vessel.		
Lastname	Firstname	Gender (M/F)	Relationship*	Date of Birth	Contact Number(s)
*Relationship to Owner/Co-owner:	Self, Parent, Spouse, Child, ICE (i	n case of emerg	ency), Employee, Life Part	ner, Other (specify	if "Other").
4. VESSEL OWNER INFORM	2014	essel Owner	Limited		or
Owner's Name (Last):	Dusiness (value)	First):		(M.I.):	Suffix:
Date of Birth		none:			
Co-owner's Name (Last):		First):		(M.I.):	Suffix:
					_
Date of Birth	n: / / P!	none:			

Process for Temporary Mooring

- 1. Completed application for Temporary Mooring Permit. (signed by vessel owner)
- 2. Complete the DOBOR Declaration Form
- 3. Attach a copy of Vessel owner's photo identification.
- 4. Attach current Vessel Registration or USCG Documentation.
- 5. Attach current Vessel Inspection by an Approved Marine Surveyor (good for 2 years) or a Vessel Safety Check by a State Harbor Agent (good for 2 years).
- 6. Current insurance in Vessel owners name, and must include:
 - a. Listed as additional insured:

State of Hawai'i
DLNR – Boating Division *or* DLNR-BOR
74-380 Kealakehe Parkway
Kailua-Kona, Hawai'i 96740

- b. Include 30-day cancellation notice.
- c. Minimum \$500,000 liability/protection & indemnity coverage
- d. List the identification number of the permitted vessel. (example: USCG DOC#, State registration #, or Hull I.D)



Honokohau Small Boat Harbor, State of Hawaii 74-380 Kealakehe Parkway, Kailua-Kona, HI 96740

Phone: (808) 327-3685 Fax: (808) 327-3675



APPLICATION FOR TEMPORARY MOORING PERMIT (Continued)

5. VESSEL INFORMATION
Vessel Name: Endless Summer Port of Registry: George Town, Cayman Islands
Documentation Type: Registration Coast Guard Documentation None
Registration or Doc.#: 746154 Expiration Date: / /
Hull Manufacturer: Christensen/Delta Year Built: 2017 Length Overall: 164 (feet) (inches)
Hull ID#: Number of Hulls: 1 Length Over Deck: 164 (feet) (inches)
Hull Color: Grey Cabin Color: White Draft of Vessel: 8 (feet) 3 (inches)
Top Deck Color: White Trim Color: Red/Dark Grey Beam of Vessel: 29 (feet) (inches)
6. VESSEL TYPE AND PROPULSION
Vessel Type (✓ one): □ Open Motorboat ☑ Motor Vessel (more than 65) □ Sailing Vessel □ Houseboat □ Runabout □ Auxilary Powered Sailing Vessel □ Cabin Motorboat □ Thrillcraft □ Dinghy or Skiff □ Barge □ Platform □ Other: Principle Use (✓ one): ☑ Pleasure □ Charter Fishing □ Commercial Fishing □ Commercial Passenger □ Charter Bare Boat □ Dealer □ Manufacturer □ Charter Sail □ Water Taxi □ Other Commercial: Primary Propulsion Type (✓ one): ☑ Power □ Sail □ None □ Other: If Power: Engine Type(s) (✓ one): □ Outboard ☑ Inboard ☑ Manual □ None □ Other: Engine Manufacturer: MTU Horsepower: 1,800 Number of Engines: 2
If Sail: Rigging Type: Sloop Schooner Three-Masted Schooner Four-Masted Schooner Ketch Brig Brigantine Barque Barquentine Fully Rigged Ship Snow Yawl Cutter Clipper Auxiliary Propulsion for Sail:
Engine Type(s) (✔one): ☐Outboard ☐ Inboard ☐Outboard / Inboard ☐None
Engine Manufacturer: Horsepower: Number of Engines:
Fuel Type (✔ one): ☐ Gasoline ☑ Diesel ☐ Electric ☐ Other (specify):
7. AGREEMENT & SIGNATURE
I agree to comply with the provisions of the Hawaii Administrative Rules as promulgated by the Division of Boating and Ocean Recreation applicable to this permit. A Hoagson Signature of Applicant Date

Temporary Mooring Attachments

Attach copy of Vessel owners ID here:



Attach copy of Vessel Registration/Documentation here:



Attach copy of Vessel Safety Check here:

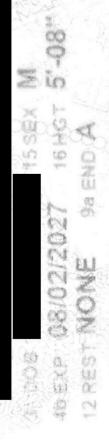


Attach Vessel Certificate of Insurance here:



900

G850



SAFE DRIVER

5DD R051907240167





АИМИА SURVEY ENDORSEMENT

	(Signature)	
Surveyor to the American Bureau of Shipping		
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	EXTENSION OF CLASS C THIS CLASSIFICATION CERTIFICAT	
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Surveyor to the American Bureau of Shipping		
Date		Place
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Surveyor to the American Bureau of Shipping Surveyor to the American Bureau of Shipping	JAMES ADDIE TUNGENG. Signature) Signature) Signature) Signature) Hovolulu, HI Signature)	Haber Place B
Date Date ALIGUST 2020 Surveyor to the American Bureau of Shipping	Signature) Signature) Signature) Signature) Signature) Signature) Signature)	HOSER BOSER
Surveyor to the American Bureau of Date 18 ALIGUST 2020 Surveyor to the American Bureau of Date	JAMES ADDIE TUNGENG. Signature) Signature) Signature) Signature) Hovolulu, HI Signature)	Haber Place B

THIS CERTIFICATE IS NOT A CONFIRMATION OF CLASS

Temporary Mooring eSign

Final Audit Report

2021-09-30

Created:

2021-09-30

By:

dlnr.bd.kailua-konapier@hawaii.gov

Status:

Signed

Transaction ID:

CBJCHBCAABAA4gSCKZ5GUoEzwPhU-vaqlgttqjKxkUK3

"Temporary Mooring eSign" History

- Web Form created by dlnr.bd.kailua-konapier@hawaii.gov 2020-06-08 9:32:56 PM GMT
- @ A.Hodgson (captain@endlesssummer.co) uploaded the following supporting documents:
 - File Attachment 1
 - File Attachment 2
 - File Attachment 3
 - File Attachment 4

2021-09-30 - 1:07:50 AM GMT

- Web Form filled in by A.Hodgson (captain@endlesssummer.co) 2021-09-30 1:07:50 AM GMT- IP address: 208.114.122.74
- Document emailed to A.Hodgson (captain@endlesssummer.co) for signature 2021-09-30 1:07:53 AM GMT
- Email viewed by A.Hodgson (captain@endlesssummer.co) 2021-09-30 1:08:17 AM GMT- IP address: 66.249.81.168
- Agreement completed.

2021-09-30 - 1:08:44 AM GMT





PARTICULARS OF SHIP		
NAME OF SHIP	NUMBER, YEAR AND PORT OF REGISTRY	OFFICIAL NUMBER
ENDLESS SUMMER	139 IN 2017, GEORGE TOWN	746154
NAME & ADDRESS OF BUILDERS	TYPE OF SHIP	SIGNAL LETTERS
CHRISTENSEN SHIPYARDS, LTD. VANCOUVER, WA 98661 (HULL) &	PLEASURE YACHT	ZGEM2
DELTA MARINE INDUSTRIES, INC SEATTLE, WA 98108 (SUPERSTRUCTURE)	MATERIAL USED TO CONSTRUCT HULL	IMO NUMBER (IF ANY)
NUMBER, YEAR AND PORT OF PREVIOUS REGISTRY (IF ANY)	GLASS REINFORCED PLASTIC	9727948
Will I NO 41 CHONNA OF OR OTHER	DATE KEEL LAID	DATE MEASURED
HULL NO. 41 SUC22/14 GEORGE TOWN	1-SEP-2013	11-AUG-2017

PRINCIPAL DIMENSIONS

LENGTH (m):	43.82	THE TONNAGE(S) OF THIS SHIP	THE TONNAGE(S) OF THIS SHIP IN ACCORDANCE WITH HER INTERNATIONAL TONNAGE CERTIFICATE (1969) ARE:			
BREADTH (m):	8.80	INTERNATIONAL TONNAGE CI				
MOULDED DEPTH (m):	2.84	GROSS TONNAGE:	499			
MOULDED DRAUGHT (m):	2.52	NET TONNAGE:	149			
OVERALL LENGTH (m):	49.99	For ships under 24 metres length, the ton	For ships under 24 metres length, the tonnage is the grass tonnage and net tonnage.			

PARTICULARS OF ACCOMMODATION

NUMBER OF SEAMEN (INCLUDING APPRENTICES) FOR WHOM ACCOMMODATION IS PROVIDED:	10
NUMBER OF PASSENGERS FOR WHOM ACCOMMODATION IS PROVIDED:	12

ENGINE AND BOILER PARTICULARS

DESCRIPTION OF ENGINES	NAME & ADDRESS OF ENGINE MAKERS	ENGINE DETAILS		
	MTU	NO. OF SETS:	2	
INTERNAL COMBUSTION ENGINE	MAYBACHPLATZ 1 88045 FRIEDRICHSHAFEN	NO. OF SHAFTS:	2	
	GERMANY	WHEN MADE:	2014	
NUMBER OF CYLINDERS IN EACH SET	DIAMETER OF CYLINDERS (mm)	LENGTH OF STROKE (mm)		
12	170	210		
DESCRIPTION OF BOILERS	NAME & ADDRESS OF BOILER MAKERS	BOILER DETAILS		
		NUMBER:	-	
•	•	WORKING PRESSURE:	•	
		WHEN MADE:	-	

ADDITIONAL PARTICULARS

ESTIMATED BRAKE POWER (kW)	ESTIMATED SPEED OF SHIP (knots)	METHOD OF PROPULSION
2796	18	MOTOR

NAME AND ADDRESS OF THE OWNER

NUMBER OF SIXTY-FOURTH SHARES

64 SHARES

2G VESSEL OWNER LIMITED FLOOR 4, WILLOW HOUSE **CRICKET SQUARE GRAND CAYMAN KY1-9010 CAYMAN ISLANDS**

CAYMAN ISLANDS Shipping registry

DATED AT GEORGE TOWN, CAYMAN ISLANDS ON 18 AUGUST 2017.

REGISTRAR OF BRITISH SHIPS

NOTICE: A Certificate of Registry is not a document of Title. It does not necessarily contain notice of all changes of ownership, and in no case does it contain an official record of any mortgages affecting the ship. In case of any change of ownership it is important for the protection of the interests of all parties that the change should be registered occording to law. Changes of ownership, address or other registered particulars should be notified to the Registrar at the Port of Registry. Should the Vessel be lost, broken up, or cease to be entitled to be registered in the Cayman Islands, notice thereof, together with the Certificate of Registry, if in existence, should within 30 days be given to the Registrar of Shipping at George Town in the Cayman Islands under a penalty for default.

NOTE: For the purpose of this Certificate, when a Pleasure Yacht is engaged in trade (by carrying passengers for hire, reference SOLAS Chapter 1, Part A, Regulation 3(a)(v)) it may also be referred to as a Commercial Vessel.

CONFIRMATION OF COVERAGE



PRIVATE CLIENT SERVICES OVERVIEW

DETAILS OF THE RISK

This is confirmation that we have arranged the insurance described below with underwriters. It is agreed that insurance contracts and premium agreements subsequently issued shall conform to this binder. We suggest that you review this notice to make certain we have followed your instructions accurately. Please keep the notice as evidence of coverage until the policy reaches you.

NAMED INSURED	2G Vessel Owner Limited
MAILING ADDRESS	c/o Hines Interests, 2800 Post Oak Blvd., Ste. 4800 Houston, TX 77056
TITLED ADDRESS OF VESSEL	Floor 4, Willow House, Cricket Square, PO Box 268, Grand Cayman KY1-1104
DESCRIPTION OF VESSEL(S)	"Endless Summer" 2017 162' Christensen/Delta Tri-Deck
GROSS TONNAGE, IMO#, COFR#, CALL SIGNS	GRT: 499 IMO: 9727948 COFR# 876672-14 Expiration: 08/17/2023
FLAG STATE	Cayman Islands
VESSEL CLASSIFICATION AND WARRANTY	ABS Warranted that vessel maintains classification
POLICY PERIOD	July 1, 2021 to July 1, 2022
ADDITIONAL INSURED(s)	2G Vessel Owner Limited (as Owners) Y.CO S.A.M. and YCO Inc. (as Managers) &/or Endless Summer Crew IC Ltd. (as Crew Employers) for their respective rights and interests &/or Subsidiary &/or Affiliated &/or Associated Companies &/or respectively for the account of whom it may concern
LOSS PAYEE	Bank of America Document Retention-GCF, MO1-800-08- 800 Market Street, 8th Floor St. Louis, MO 63101-2510
BREACH OF WARRANTY AMOUNT MORTGAGEE	\$29,010,065 In favor of Bank of America

Katie S. Johnson, AAI, VP

Private Client Services, Abusiness of Marsh Mctennan 1800 SE 10 Avenue. Suite 215 Ft. Lauderdale, FL 33316 Direct: 954 765 5692 Email: Kathleen.S.Johnson@marsh.com

THIS CONFIRMATION IS PROVIDED AS A MATTER OF INFORMATION AND DOES NOT REPRESENT A COMPLETE POLICY. THE CONFIRMATION IS SUBJECT TO ALL TERMS, CONDITIONS AND EXCLUSIONS OF THE POLICY

A business of Marsh McLennan

Item F-3, Exhibit C

CORAL PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$10	\$20	\$25	\$25	\$25	\$20
5 – 10 cm	\$20	\$40	\$50	\$50	\$50	\$40
10 – 20 cm	\$50	\$100	\$100	\$100	\$100	\$100
20 – 40 cm	\$100	\$200	\$200	\$200	\$200	\$200
40 – 80 cm	\$200	n/a	\$400	\$400	\$500	\$500
80 – 160 cm	\$500	n/a	\$800	\$800	\$1000	\$1000
+ 160 cm	\$750	n/a	\$1000	\$1000	\$1000	\$1000

RARE CORAL PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$20	\$40	\$50	\$50	\$50	\$40
5 – 10 cm	\$40	\$80	\$100	\$100	\$100	\$80
10 – 20 cm	\$100	\$200	\$200	\$200	\$200	\$200
20 – 40 cm	\$200	\$400	\$400	\$400	\$400	\$400
40 – 80 cm	\$400	n/a	\$800	\$800	\$1000	\$1000
80 – 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000
+ 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000

FMA CORAL PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$15	\$30	\$35	\$35	\$35	\$30
5 – 10 cm	\$30	\$60	\$75	\$75	\$75	\$60
10 – 20 cm	\$75	\$150	\$150	\$150	\$150	\$150
20 – 40 cm	\$150	\$300	\$300	\$300	\$300	\$300
40 – 80 cm	\$300	n/a	\$600	\$600	\$750	\$750
80 – 160 cm	\$750	n/a	\$1000	\$1000	\$1000	\$1000
+ 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000

MLCD CORAL PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$20	\$40	\$50	\$50	\$50	\$40
5 – 10 cm	\$40	\$80	\$100	\$100	\$100	\$80
10 – 20 cm	\$100	\$200	\$200	\$200	\$200	\$200
20 – 40 cm	\$200	\$400	\$400	\$400	\$400	\$400
40 – 80 cm	\$400	n/a	\$800	\$800	\$1000	\$1000
80 – 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000
+ 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000

RARE CORAL FMA PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$30	\$60	\$75	\$75	\$75	\$60
5 – 10 cm	\$60	\$120	\$150	\$150	\$150	\$120
10 – 20 cm	\$150	\$300	\$300	\$300	\$300	\$300
20 – 40 cm	\$300	\$600	\$600	\$600	\$600	\$600
40 – 80 cm	\$600	n/a	\$1000	\$1000	\$1000	\$1000
80 – 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000
+ 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000

RARE CORAL MLCD PENALTY MATRIX

	Encrusting	Solitary	Branching	Digiform	Plate-Like	Massive
0 – 5 cm	\$40	\$80	\$100	\$100	\$100	\$80
5 – 10 cm	\$208	\$160	\$200	\$200	\$200	\$160
10 – 20 cm	\$200	\$400	\$300	\$400	\$400	\$400
20 – 40 cm	\$400	\$800	\$800	\$800	\$800	\$800
40 – 80 cm	\$800	n/a	\$1000	\$1000	\$1000	\$1000
80 – 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000
+ 160 cm	\$1000	n/a	\$1000	\$1000	\$1000	\$1000

LIVE ROCK PENALTY MATRIX (m²)

	Rubble	Pavement	Reef	Basalt	High Rugosity	
Turf / Cyanobacteria	\$10	\$20	\$40	\$20	\$40	
Macroalgae	\$20	\$100	\$200	\$100	\$200	
CCA - Encrusting	\$200	\$400	\$600	\$400	\$600	
CCA - Rugose	\$400	\$800	\$1000	\$800	\$1000	
Sponge, Bryozoan, Other Sessile	\$100	\$150	\$300	\$150	\$300	
Soft Coral / Zoanthid	\$80	\$200	\$400	\$200	\$400	
High Biodiversity	\$200	\$400	\$600	\$400	\$600	

FMA LIVE ROCK PENALTY MATRIX (m²)

	Rubble	Pavement	Reef	Basalt	High Rugosity	
Turf / Cyanobacteria	\$15	\$30	\$60	\$30	\$60	
Macroalgae	\$30	\$150	\$300	\$150	\$300	
CCA - Encrusting	\$300	\$600	\$800	\$600	\$900	
CCA - Rugose	\$600	\$1000	\$1000	\$1000	\$1000	
Sponge, Bryozoan, Other Sessile	\$150	\$225	\$450	\$225	\$450	
Soft Coral / Zoanthid	\$120	\$300	\$600	\$300	\$600	
High Biodiversity	\$300	\$600	\$800	\$600	\$900	

MLCD LIVE ROCK PENALTY MATRIX (m²)

	Rubble	Pavement	Reef	Basalt	High Rugosity	
Turf / Cyanobacteria	\$20	\$40	\$80	\$40	\$80	
Macroalgae	\$40	\$200	\$400	\$200	\$400	
CCA - Encrusting	\$400	\$800	\$1000	\$800	\$1000	
CCA - Rugose	\$800	\$1000	\$1000	\$1000	\$1000	
Sponge, Bryozoan, Other Sessile	\$200	\$300	\$600	\$300	\$600	
Soft Coral / Zoanthid	\$160	\$400	\$800	\$400	\$800	
High Biodiversity	\$400	\$800	\$1000	\$800	\$1000	