

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Aquatic Resources  
Honolulu, Hawaii 96813

July 28, 2023

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

**Subject:** Enforcement Action against Jim Jones, Noelani Yacht Charters, LLC, Kevin S. Albert, Kimberly L. Albert, and the Albert Revocable Trust for Stony Coral and Live Rock Damage resulting from the *Nakoa* grounding incident on February 20, 2023 outside of the Honolua-Mokulē‘ia Bay Marine Life Conservation District, island of Maui.

**Summary:** This submittal requests the Board of Land and Natural Resources find that Jim Jones, Noelani Yacht Charters, LLC, Kevin S. Albert, Kimberly L. Albert, and the Albert Revocable Trust violated Hawaii Administrative Rules §§ 13-95-70 and 71 by breaking and damaging 119 specimens of stony coral and 1640.5 square meters of live rock when their vessel, *Nakoa*, grounded outside the Honolua-Mokulē‘ia Bay Marine Life Conservation District, island of Maui, on February 20, 2023. To compensate the State of Hawaii for the damage to natural resources on public lands, the restoration of such natural resources, and the cost of investigation, the Division of Aquatic Resources recommends that the Board approve the proposed administrative penalty of **\$117,471.97**.

**Date of Incident:** February 20, 2023

**Against:** Jim Jones  
7226 Hawaii Kai Dr., Unit B  
Honolulu, HI 96825

Noelani Yacht Charters, LLC  
360 Mokauea St.  
Honolulu, HI 96814

Kevin S. Albert and Kimberly L. Albert, Trustees of the Albert Revocable Trust UAD 06/03/1997 and Restated 01/07/2020  
c/o McCorriston Miller Mukai MacKinnon LLP  
500 Ala Moana Boulevard, 4<sup>th</sup> Floor  
Five Waterfront Plaza  
Honolulu, Hawaii 96813

**Location of  
Incident:**

Within a 1,940 square meter area directly adjacent to the Honolua-Mokulē'ia Bay Marine Life Conservation District, island of Maui.

GPS Coordinates: 21°01'06"N, 156°38'28"W *or*  
21.0186014, -156.6412556

## I. INTRODUCTION

The *Nakoa* is a 94-foot luxury yacht owned by Noelani Yacht Charters, LLC (“Yacht Charters”), a luxury charter business based in Honolulu, Hawai‘i. Jim Jones (“Jones”) is the manager and agent for Yacht Charters. The *Nakoa* is registered under Official Number (U.S.) 1254807 and United States Coast Guard number CG1290268.<sup>1</sup>

On February 18 and 19, 2023, Jones was using the *Nakoa* and moored the vessel overnight inside Honolua Bay, Maui on a mooring ball. On February 20, 2023, at approximately 5:20 a.m., the *Nakoa* detached from its mooring and became adrift. Despite efforts by Jones and the on-board captain to steer the *Nakoa* away from shore, the *Nakoa* grounded upon the rocky shoreline between Honolua Bay and Līpoa Point, Maui (“the *Nakoa* grounding incident”).

Over the course of the next two weeks, the State of Hawai‘i’s Department of Land and Natural Resources (“DLNR”) and the United States Coast Guard (“USCG”) defueled the *Nakoa*, removed its batteries, and removed the vessel from the shoreline. On February 24, 2023 the USCG federalized the *Nakoa*, thereby assuming all responsibility for decisions related to the removal of batteries and fuel. After the USCG determined that the fuel, batteries, and all other hazardous materials were successfully removed from the *Nakoa*, the USCG turned over control of the vessel to DLNR.

On March 5, 2023, two salvage ships contracted by DLNR (“salvage team”) worked in tandem to move the *Nakoa* off the rocky shoreline and into open water. The *Nakoa* quickly took on water and began to list to one side. The salvage team ultimately determined that the *Nakoa* was unsalvageable and made the decision to scuttle the vessel in approximately 800 feet of water off the coast of Honolua Bay, which is where it remains today.

The Maui Division of Aquatic Resources (“DAR”) conducted two site assessments to determine the damage to natural resources caused by the *Nakoa* grounding incident. The Maui DAR concluded that a total of 1,640.5 square meters of live rock<sup>2</sup> was damaged and at least 119 living coral colonies were damaged or destroyed. The Maui DAR’s Final Report is attached as **Exhibit A**.<sup>3</sup>

## II. FACTUAL BACKGROUND

### A. Honolua Bay, Maui

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<sup>1</sup> Note that there is a discrepancy in the *Nakoa*’s length. The USCG’s official documentation states that the *Nakoa* is 75.5 feet in length. However, the USCG’s news releases on the incident state that the *Nakoa* is 94 feet in length. After consulting with the USCG, they do not know why this discrepancy exists, but suspect it was caused by human error in the initial registration in 2004. Jones and Yacht Charters own an additional vessel, the *Noelani*, which is 75 feet in length, possibly explaining the confusion.

<sup>2</sup> In the administrative rules, “Live rock” is defined as “any natural hard substrate to which marine life is visibly attached or affixed.” Haw. Admin. R. § 13-95-1.

<sup>3</sup> *Nakoa Vessel Grounding, Lipoa Point, Maui Damage Assessment, Field Investigative Report*, Russell Sparks and Kristy Stone, Department of Land and Natural Resources, Division of Aquatic Resources, Maui Office, April 20, 2023. (Exhibit A)

Honolua Bay is located on the northwestern coast of Maui, approximately 10 miles north of the town of Lāhainā. Honolua Bay is famous for its world-class surfing and snorkeling and is recognized for its cultural, historic, and environmental value. Honolua Bay is part of the Honolua-Mokulē‘ia Bay Marine Life Conservation District (“MLCD”).<sup>4</sup> Within this MLCD, fishing activities are restricted and damage to marine life carries elevated fines.

The *Nakoa* grounded on rocky shoreline approximately 200 meters north of the Honolua-Mokulē‘ia Bay MLCD boundary. The grounding damage to natural resources, along with the subsequent damage scars from the ingress/egress of the vessel, occurred outside of the Honolua-Mokulē‘ia Bay MLCD.

Although the *Nakoa* grounding incident occurred outside of the Honolua-Mokulē‘ia Bay MLCD, access to parts of the surrounding area was restricted to the public during certain periods between February 20 and March 5, 2023, while the salvage operations were ongoing, causing angst to many community residents who regularly frequented the area.<sup>5</sup>

## **B. The Responsible Parties**

Jones registered and incorporated Yacht Charters in Hawai‘i as a Domestic Limited Liability Company on September 17, 2020.<sup>6</sup> The Hawaii Department of Commerce & Consumer Affairs’ Business Registration Division lists the purpose of Yacht Charters as a “Luxury Yacht Charters” service.<sup>7</sup>

In 2020, Yacht Charters purchased its first vessel, the *Noelani*. In December 2022, Yacht Charters purchased its second vessel, the *Nakoa*. Yacht Charters purchased the *Nakoa* from Kevin and Kimberly Albert, trustees of the Albert Revocable Trust, by way of a Vessel Installment Purchase and Management Agreement dated December 29, 2022.<sup>8</sup> The purchase price of the vessel was \$1.45 million dollars, to be paid over fifteen years.<sup>9</sup> The *Nakoa* is listed as 94-foot long<sup>10</sup> and weighing 120 tons.<sup>11</sup>

Prior to the *Nakoa* grounding incident, Yacht Charters marketed itself as a high-end, luxury charter service<sup>12</sup> with trips starting at \$9,801.04.<sup>13</sup> As of the date of this submittal, Yacht

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<sup>4</sup> See HAW. ADMIN. R. § 13-32

<sup>5</sup> <https://www.civilbeat.org/2023/03/maui-yacht-owner-i-didnt-know-what-i-was-getting-into/> “I feel his actions were extremely irresponsible,” said Maui County Council member Tamara Paltin, who has long fought to protect Honolua Bay. “I don’t think he fully understands how special a place Honolua is to so many of us and just how much aggravation he has caused our community.”

<sup>6</sup> <https://hbe.hawaii.gov/documents/business.html?fileNumber=242649C5>

<sup>7</sup> *Id.*

<sup>8</sup> Complaint, filed on March 13, 2023, at 2, *Albert Revocable Trust v Noelani Yacht Charters, et al.* Case 1:23-CV-00132 (D.Haw. 2023).

<sup>9</sup> *Id.* p.3.

<sup>10</sup> *Id.* p.2.

<sup>11</sup> <https://dlnr.hawaii.gov/blog/2023/02/28/nr23-40/>

<sup>12</sup> *Id.* “We cater to these guys that are flying in on their private jets,” Jones said.

<sup>13</sup> <https://web.archive.org/web/20230303185035/https://noelaniyachtcharters.com/maui-luxury-yacht-charters/>

Charters is not offering charter services, and its website states that Yacht Charters “is no longer operational.”<sup>14</sup>

### C. The February 20, 2023 *Nakoa* Grounding Incident

On February 18 and 19, 2023, the *Nakoa* moored overnight inside Honolua Bay, Maui on a mooring ball. Jones was accompanied on the *Nakoa* by his wife Isabella Jones, Captain Kimberly Kalalani Higa (“Captain Higa”), a first mate, a crew member, and four juvenile family members and friends. Captain Higa holds a 100-Ton USCG captain’s license and had previously captained Yacht Charter’s other vessel, the *Noelani*, in Honolua Bay. Captain Higa had previously captained the *Nakoa* as well, but never in Honolua Bay. Under the terms of the *Nakoa*’s insurance policy, the *Nakoa* was only to be captained by a listed and approved captain, Captain Joe Bardouche, not Captain Higa.<sup>15</sup>

On February 18 to and including February 20, 2023, Jones was using the *Nakoa* for “recreational” use.<sup>16</sup> While moored overnight inside Honolua Bay on a mooring ball, Jones set a digital anchor alarm to alert the captain and crew if the vessel became detached from its mooring.<sup>17</sup>

On February 20, 2023 at approximately 5:20 a.m.,<sup>18</sup> the *Nakoa*’s anchor alarm sounded, alerting the crew that the *Nakoa* had become adrift. Jones and Captain Higa attempted to steer the vessel away from shore, but the *Nakoa* ultimately grounded upon the rocky coastline between Honolua Bay and Līpoa Point. Over the course of the next two weeks, DLNR and the USCG took various steps to defuel the *Nakoa*, remove its batteries, and remove the vessel from the coastline.<sup>19</sup>

On February 21, 2023, the Maui DAR conducted an initial site assessment to document and measure the extent of damage at the initial grounding scar.<sup>20</sup> Damage to this area was “patchy”

<sup>14</sup> <https://noelaniyachtcharters.com>

<sup>15</sup> See Note 8, Complaint, *Albert Revocable Trust v Noelani Yacht Charters, et al.* p.7.

<sup>16</sup> Answer, filed on April 4, 2023, at 2, *Albert Revocable Trust v Noelani Yacht Charters, et al.* Case 1:23-CV-00132 (D.Haw. 2023). Note that Kevin and Kimberly Albert allege Jones was using the vessel at this time for “personal use, not a commercial charter.” See Note 8, p.8. However, Jones maintains that this type of “recreational” trip was a regular occurrence and “used to check on the vessels’ systems and to make sure everything [was] being maintained properly.” Answer, p.2.

<sup>17</sup> See Note 8, Complaint, *Albert Revocable Trust v Noelani Yacht Charters, et al.* p.9. and Note 16, Answer, *Albert Revocable Trust v Noelani Yacht Charters, et al.* Addendum, p.2. Kevin and Kimberly Albert allege that Jones and Captain Higa did not take “the standard precaution of setting a manned mooring or anchor watch...but instead relied solely on a digital anchor alarm set by Jones.” Complaint, p.10. However, Jones maintains “[s]tandard procedures were taken to secure mooring line properly to mooring ball/line,” and that “[t]he anchor alarm was set and monitored.” Answer, Addendum, p.2.

<sup>18</sup> Kevin and Kimberly Albert allege the anchor alarm sounded at 5:20am while Jones asserts that the alarm sounded at 5:45am. See Note 8, Complaint, *Albert Revocable Trust v Noelani Yacht Charters, et al.* p.9 and Note 16, Answer, *Albert Revocable Trust v Noelani Yacht Charters, et al.* Addendum, p.2.

<sup>19</sup> In Hawaii, when a private vessel runs aground, it is the vessel owner’s responsibility to remove it and to coordinate with DLNR to ensure that the vessel is removed with the least amount of damage possible to reefs and the marine environment. See <https://dlnr.hawaii.gov/blog/2023/02/21/nr23-33/>

<sup>20</sup> The initial grounding scar refers to the 170 square meter area of hard-bottom habitat that was scraped, or “scarred,” when the *Nakoa* initially drifted into shallow water on the morning of February 20, 2023.

and included 35.5 square meters of damaged live rock that was considered “high rugosity” habitat.<sup>21</sup>

On Friday February 24, 2023, the USCG federalized<sup>22</sup> the *Nakoa*, thereby assuming all responsibility for decisions related to the removal of batteries and fuel. After the USCG determined that the fuel, batteries, and all other hazardous materials were successfully removed from the *Nakoa*, the USCG turned over control of the vessel to DLNR.<sup>23</sup>

On March 5, 2023, the salvage ship *Kahi*, operated by Visionary Marine LLC, and the tugboat *Mary Catherine*, operated by Sause Brothers Inc., (“the salvage team”) worked in tandem to move the *Nakoa* off the shoreline and into open water. The *Nakoa* quickly took on water due to a breach of the hull from the grounding incident, and the vessel began to list to one side while riding “bow high.”<sup>24</sup> The salvage team ultimately decided that the *Nakoa* was unsalvageable and made the decision to scuttle the vessel in approximately 800 feet of water off the coast of Honolulu Bay, which is where it remains today.

On March 7, 2023, the Maui DAR conducted its second site assessment of the damage to natural resources caused by the *Nakoa* grounding incident. This assessment focused on the impact to hard bottom habitat along the secondary grounding scar<sup>25</sup> and along the salvage scar.<sup>26</sup> The Maui DAR concluded that a total of 1,640.5 square meters of live rock was damaged and at least 119 living coral colonies were damaged or destroyed. The Maui DAR’s Final Report is attached as **Exhibit A.**<sup>27</sup>

#### **D. Ecological assessments of habitat damage**

The Maui DAR conducted two site assessments on February 21, 2023 and March 7, 2023 to evaluate the impact to hard bottom habitat where the *Nakoa* grounded. Both assessments used the same methodology for measuring the total area impacted by the grounding incident and for assessing damage. The Maui DAR biologists used 50-meter measuring tapes to measure the length of the scars, and these measuring tapes also served as transect tapes for the more detailed damage assessments. The biologists also mapped out the entire area by hand, showing the initial impact scar, the secondary impact scar, and the salvage scar. To assess specific damage within

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<sup>21</sup> See Note 3, *Nakoa Vessel Grounding, Lipoa Point, Maui Damage Assessment, Field Investigative Report*, p.3. “Rugosity” is a measurement of the structural complexity of the substrate. Live rock with “high rugosity” often has crevices, ledges, and caves/holes.

<sup>22</sup> “Federalize” in this context means to bring under the control of the United States government.

<sup>23</sup> Under normal circumstances, the USCG will return a federalized vessel back to its owner once all batteries, fuel, and other hazardous materials are removed. The owner will then work with DLNR to determine an acceptable salvage plan. In this instance, however, Jones and Yacht Charters indicated they would not be able to contract and pay for the salvage operations, and they therefore transferred control of the *Nakoa* to DLNR. See <https://dlnr.hawaii.gov/blog/2023/02/28/nr23-38/>

<sup>24</sup> The bow, or front, of the vessel was riding much higher than normal while the stern, or back, of the vessel was nearly underwater. See <https://dlnr.hawaii.gov/blog/2023/03/06/nr23-44/>

<sup>25</sup> The secondary grounding scar refers to the 1,575 square meter area of flat carbonate pavement and basalt boulder habitat located directly around the area where the *Nakoa* was grounded for fourteen days.

<sup>26</sup> The salvage scar refers to the 195 square meter area that was scraped, or “scarred,” when the contracted salvage ships towed the *Nakoa* off the shoreline and into open water.

<sup>27</sup> See Note 3, *Nakoa Vessel Grounding, Lipoa Point, Maui Damage Assessment, Field Investigative Report*.

these areas, divers swam along the transect tape while identifying all coral colonies to the species level, measuring the colonies' sizes, and photographing the evidence. A 50-cm archaeological black and white pole was used to measure coral colony size and to serve as a consistent scale in the photographs.

### 1. The February 21, 2023 Assessment

On February 21, 2023, Maui DAR Aquatic Biologist Russell Sparks, along with the assistance of Marine Monitoring Technician Tatiana Martinez, conducted the first site assessment of damage related to the *Nakoa* grounding incident. The biologists took photos, measurements, and notes regarding the extent of damage around the initial grounding scar. The biologists also noted the location and condition of the *Nakoa* and observed that the vessel was leaking small amounts of diesel fuel into the nearshore waters at this time.

The *Nakoa* grounding incident resulted in a patchy initial grounding scar that extended 85 meters by 2 meters from a northwestern direction (170 square meters). Of these 170 square meters of disturbed habitat, 35.5 square meters of live rock were specifically documented and photographed as having high rugosity.<sup>28</sup> Additionally, the biologists documented 18 coral colonies directly damaged or destroyed at the initial grounding scar, 10 of which belonging to the species *Porites lobata* ("lobe coral") and 8 of which belonging to the species *Pocillopora meandrina* ("cauliflower coral").

### 2. The March 7, 2023 Assessment

The March 7, 2023, site assessment occurred two days after the *Nakoa* was removed from the shoreline. This second site assessment was conducted by Russell Sparks and Maui DAR Aquatic Biologist Kristy Wong-Stone, along with assistance from Tatiana Martinez and Marine Monitoring Technician Cole Peralto. This second site assessment focused on the impact to hard bottom habitat at the secondary grounding scar and the salvage scar.

Live rock habitats were pulverized and badly disturbed in the area of the secondary grounding scar. Significant amounts of coral and live rock were damaged along the salvage scar. The Maui DAR biologists documented the damage and took detailed photographs of all damaged corals and of areas with significant live rock damage. In its assessment of the secondary grounding scar, the biologists measured 1,575 square meters of live rock that was scarred, smashed, and/or destroyed in this area.<sup>29</sup> The biologists then assessed the salvage scar, the area where the *Nakoa* was towed from the shoreline back out into the ocean. The biologists documented 195 square meters of hard-bottom habitat that was disturbed from the salvage operations, and of these 195 square meters, 30 square meters were documented as live rock habitat with significant damage.<sup>30</sup> The biologists also documented 101 coral colonies that were damaged or destroyed. Of these 101

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<sup>28</sup> The Maui DAR team noted the presence of cliff-like structures and ledges in this area which were damaged and broken. This type of hard-bottom live rock habitat is valuable habitat for various marine life. See *Id.*, p.3.

<sup>29</sup> *Id.* p.4.

<sup>30</sup> *Id.*

coral colonies, 77 belonged to the species *Pocillopora meandrina* (“cauliflower coral”) and 24 belonged to the species *Porites lobata* (“lobe coral”).<sup>31</sup>

### III. LEGAL AUTHORITY FOR ENFORCEMENT

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

Under Hawai‘i Revised Statutes (“HRS”) Section 190-3, the DLNR is authorized to adopt rules governing the taking or conservation of live coral and other marine life. 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.” “Stony coral” is defined 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.* And “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.

The Maui DAR biologists documented damaged colonies of *Pocillopora meandrina* (“cauliflower coral”) and *Porites lobata* (“lobe coral”) during their site inspections. Cauliflower coral and lobe coral are “stony corals.” Therefore, the coral colonies that were destroyed during the *Nakoa* grounding incident are stony coral species. The Maui DAR biologists documented damaged hard bottom live rock substrate with algae attached as a result of the *Nakoa* grounding incident.

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

Section 187A-12.5(c), HRS, provides the administrative penalties for violations relating to aquatic resources,<sup>32</sup> including Sections 13-95-70 and 71, HAR, 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

<sup>31</sup> *Id.*

<sup>32</sup> Section 187A-12.5(b), HRS, specifically addresses violations involving threatened or endangered species. Subsection (c) covers “all other violations.”



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 grounding 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 such as the benthic materials damaged in the *Nakoa* grounding incident, 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, Section 187A-12.5(a), HRS, authorizes the Board of Land and Natural Resources (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 administrative fines**

Section 187A-12.5(c), HRS, 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.

The maximum administrative fine for the 119 stony coral colony specimens damaged by the *Nakoa* grounding incident is therefore \$120,000.<sup>33</sup>

Section 187A-12.5(c), HRS, 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.

The maximum administrative fine for the 1,640.5 square meters of live rock damage resulting from the *Nakoa* grounding incident is therefore \$1,642,000.<sup>34</sup>

HRS §187A-12.5(a) further authorizes the Board to assess and recover administrative fees and costs, including attorneys’ fees and payment for damages or for the cost to correct damages resulting from a violation of the stony coral and live rock protection rules.

##### **B. Factors to be considered in assessing fines**

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<sup>33</sup> The total \$120,000 figure is equal to \$1,000 for the violation (damaging coral) + \$119,000 for 119 damaged coral specimens (at \$1000 per specimen). *See* HRS § 187A-12.5(c) and (e).

<sup>34</sup> The total \$1,642,000 figure is equal to \$1,000 for the violation (damaging live rock) + \$1,641,000 for 1,640.5 meters of damaged live rock (at \$1,000 per meter – if smaller than one meter, rounded up to one meter). *See* HRS §187A-12.5(c) and (e).

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.<sup>35</sup>

### 1. *Applicable violations for the instant enforcement action*

Noelani Yacht Charters, LLC, by and through Jim Jones, and Kevin and Kimberly Albert, by and through the Albert Revocable Trust, violated HAR § 13-95-70(a)(1) (damage to stony corals) when their vessel, the *Nakoa*, broke free of its mooring in Honolua Bay and grounded upon the shoreline, damaging 119 stony coral colonies.

Noelani Yacht Charters, LLC, by and through Jim Jones, and Kevin and Kimberly Albert, by and through the Albert Revocable Trust, violated HAR § 13-95-71(a)(1) (damage to live rock) when their vessel, the *Nakoa*, broke free of its mooring in Honolua Bay and grounded upon the shoreline, damaging 1,640.5 square meters of live rock.

In 2014, the Board adopted an Administrative Sanctions Schedule to facilitate the standardization of enforcement for violations of aquatic resource laws.<sup>36</sup> This schedule recommends a \$200 fine for each applicable violation.

### 2. *Approximate value of resources damaged*

DAR utilizes a set of stony coral and live rock penalty matrices to standardize coral reef damage valuation based on coral morphology, size, rarity, benthic structure, benthic species composition, and location within a managed area. These stony coral and live rock penalty matrices are attached as **Exhibit B**.<sup>37</sup> These matrices provide a comparable, but more detailed, categorization of stony coral values compared to the coral value table included in the Administrative Penalty 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, calculation of the value of the damaged resources is as follows:

#### **Stony Coral (each colony constitutes a specimen)**

<sup>35</sup> See HAW. ADMIN. R. §13-1-70

<sup>36</sup> <https://dlnr.hawaii.gov/wp-content/uploads/2021/08/CRVS-Penalties-Schedule-DAR.pdf>

<sup>37</sup> *Coral and Live Rock Penalty Matrices*. These coral and live rock penalty matrices were created by DAR coral reef biologists with expertise in Hawaiian coral and live rock ecosystems, and the matrices have been used by DAR and the BLNR in previous enforcement actions. (Exhibit B)

<u>Species</u>	<u>Size (centimeters)</u>	<u># of Colonies</u>	<u>Value per Colony</u>	<u>Total Value</u>
<i>Pocillopora meandrina</i> , cauliflower coral (common, branching)	10 – 19.9	6	\$100	\$600
	20 – 39.9	55	\$200	\$11,000
	40 – 79.9	24	\$400	\$9,600
<i>Porites lobata</i> , lobe coral (common, encrusting)	10 – 19.9	2	\$50	\$100
	20 – 39.0	16	\$100	\$1,600
	40 – 79.9	14	\$200	\$2,800
	80 – 160	2	\$500	<u>\$1,000</u>
				<b>\$26,700</b>

Based on the calculations set forth above, DAR concludes that the total value of the 119 stony coral colonies damaged by the *Nakoa* grounding incident is **\$26,700**.

### **Live Rock (m<sup>2</sup>)**

<u>Location</u>	<u>Habitat</u>	<u>Area</u>	<u>Value per m<sup>2</sup></u>	<u>Total Value</u>
Initial Grounding Scar	Pavement/High Rugosity	35.5 m <sup>2</sup>	\$40	\$1,420
Secondary Grounding Scar	Pavement/Turf	1,575 m <sup>2</sup>	\$20	\$31,500
Salvage Scar	Pavement/Turf	30 m <sup>2</sup>	\$20	<u>\$600</u>
				<b>\$33,520</b>

Based on the calculations set forth above, DAR concludes that the total value of the 1,640.5 square meters of live rock damaged by the *Nakoa* grounding incident is **\$33,520**.

Thus, DAR estimates the Total Value of the resources damaged (including both Stony Corals and Live Rock) is **\$60,220**.

### **3. *Costs of the investigation itself***

Civil Service staff members from Maui DAR spent a total of 60 hours conducting surveys, entering data, analyzing data, participating in planning meetings, and preparing the DAR Damage Assessment Report for a total cost of **\$2,958.75**. Civil Service staff members from DOCARE spent a total of 1,017.5 hours patrolling Honolulu Bay and Līpoa Point for a total cost of **\$47,656.27**. Civil Service staff members from DOBOR spent a total of 34 hours responding to the grounding incident for a total cost of **\$2,587.74**. Research Corporation of the University of Hawaii (“RCUH”) staff members spent a total of 18 hours conducting surveys, entering data, analyzing data, monitoring, and preparing the Impact Assessment report, for a total cost of **\$499.50**. DOCARE’s operational cost for vessel fuel was **\$249.71**. DAR/RCUH staff in Honolulu spent 10 days preparing the submittal for this incident at a rate of \$290 per day,

totaling **\$2,900**. The total value of this staff time and administrative costs was therefore estimated as **\$56,851.97**, as shown in **Table 1**, below.

**Table 1.** Staff time and costs for the *Nakoa* assessments.

	Unit	Rate	Total
DAR Civil Service Staff	60 hours	\$49.31/hour	\$2,958.75
DOCARE Civil Service Staff	1,017.5 hours	\$46.84/hour <sup>38</sup>	\$47,656.27
DOBOR Civil Service Staff	34 hours	\$76.11/hour	\$2,587.74
RCUH Staff	18 hours	\$27.75/hour	\$499.50
DOCARE Vessel Fuel	-	-	\$249.71
DAR Submittal	10 days	\$290/day	\$2,900.00
<b>TOTAL</b>			<b>\$56,851.97</b>

Accordingly, the total administrative cost incurred by the Department in investigating and processing this incident was **\$56,851.97**.

#### **5. Respondent's cooperation and voluntary mitigative actions**

The DLNR is unaware of any voluntary mitigative actions by Jones or Yacht Charters to restore the areas damaged by the *Nakoa* grounding 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 colony damaged. Based on the foregoing considerations, DAR recommends fines of **\$400** for the two violations, **\$60,220** for the value of the resource, and administrative costs in the amount of **\$56,851.97** for a total assessment of **\$117,471.97** 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 settlement fines and costs.

Category of Fines and Costs	Amount Recommended
Violations	\$400.00
Resource Value	\$60,220.00
Administrative Costs	\$56,851.97
<b>TOTAL</b>	<b>\$117,471.97</b>

<sup>38</sup> This average rate includes overtime pay and overtime at night pay.

**V. RECOMMENDATIONS**

1. That the Board find that JIM JONES, NOELANI YACHT CHARTERS, LLC, KEVIN S. ALBERT, KIMBERLY L. ALBERT, and the ALBERT REVOCABLE TRUST violated HAR §§ 13-95-70 and -71 when their vessel, *Nakoa*, broke free of its mooring in Honolulu Bay and grounded upon the shoreline, damaging 119 coral colonies and 1,640.5 square meters of live rock; and
2. That the Board assess an administrative fine of \$60,220 for the value of resources lost, \$400 for HAR violations, and \$56,851.97 for administrative costs for a total assessment of **\$117,471.97** against JIM JONES, NOELANI YACHT CHARTERS, LLC, KEVIN S. ALBERT, KIMBERLY L. ALBERT, and the ALBERT REVOCABLE TRUST to be paid within 60 days of the date of this submittal; and
3. That the Board delegate to the Chairperson or her designee its authority to execute all necessary documents to carry out its recommendations under this submittal; and
4. Other terms and conditions as prescribed by the Chairperson to serve the best interests of the State shall be applicable; and
5. 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,

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Brian Neilson, Administrator  
 Division of Aquatic Resources

APPROVED FOR SUBMITTAL:




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Dawn N.S. Chang, Chairperson  
 Department of Land and Natural Resources

## EXHIBIT A –

Nakoa Vessel Grounding, Lipoa Point  
Maui Damage Assessment  
Field Investigative Report  
April 20, 2023

# **Nakoa Vessel Grounding, Lipoa Point, Maui**

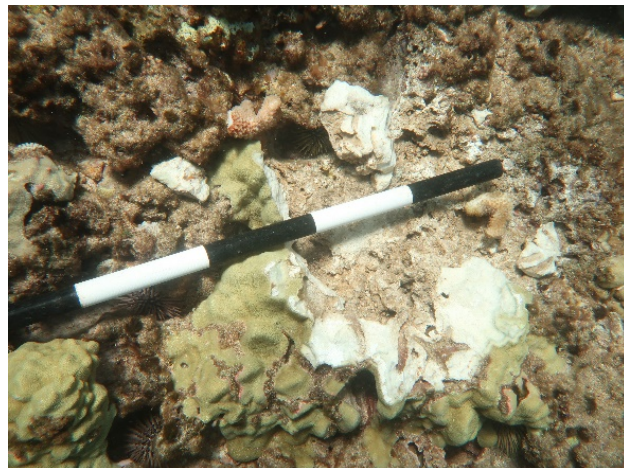
## **Damage Assessment**

**Field Investigation Report**  
**Initial Field Assessment 2/21/2023**  
**Final Assessment 3/7/2023**  
**Final Report Completed 4/20/2023**

**Report By: Russell Sparks, Kristy Stone**  
**Field Work By: Russell Sparks, Kristy Stone, Tatiana Martinez, and Cole Peralto**  
**Division of Aquatic Resources, Maui Office**



**The Vessel “Nakoa” shown grounded on the rocky shoreline and leaking diesel fuel.**



**Examples of damage to live rock habitat and corals from the grounding and salvage operations.**

## Overview

On Monday, February 20, 2023, the Maui Division of Aquatic Resources (DAR) received information regarding a large vessel that had run aground just outside of the Honolua/Mokuleia Bay Marine Life Conservation District. Based on initial reports, the vessel named “Nakoa” was moored overnight within Honolua Bay and upon waking up in the early morning, the captain realized that the vessel had come loose from its mooring but was unable to prevent it from being pushed into shallow water and grounding near Lipoa point just outside of Honolua Bay. The grounding and subsequent salvage operation resulted in significant damage to important hardbottom habitat in the area. This report will document and discuss the findings of two separate site inspections conducted by Maui DAR staff.

## Case History

The initial site inspection was conducted on February 21, 2023. At that time, the Nakoa was still stuck on the shallow rocky coastline, and the inspection focused on documenting and measuring the extent of the damage that occurred during the grounding incident. This assessment was conducted by the Maui DAR Aquatic Biologist Russell Sparks with the assistance of Tatiana Martinez (Marine Monitoring Technician). Images along with careful measurements and notes on the extent of damage were collected at both the initial grounding scar and at the area surrounding where the vessel was grounded. The location and condition of the vessel was also noted. The vessel was also observed to be leaking small amounts of diesel fuel into the nearshore waters at this time.

Following this initial site inspection, salvage companies were contracted to remove all the fuel, batteries, and other potential pollutants from the vessel. A successful effort to pull the vessel offshore was completed on March 5, 2023. After removal, the salvage company was unable to keep the Nakoa afloat and it sank between Maui and Molokai in approximately 800ft of water.

A second assessment was conducted on March 7, 2023, which was shortly after the removal of the vessel. This assessment focused on the impact to hard bottom habitat where the vessel was grounded and along the scar created when the Nakoa was pulled back out into deeper water. This assessment was conducted by Maui DAR Aquatic Biologists Russell Sparks and Kristy Wong-Stone, along with assistance from Tatiana Martinez and Cole Peralto (Marine Monitoring Technicians). Significant amounts of coral and live rock were damaged from the vessel grounding and subsequent salvage. This damage was documented, and detailed photographs were taken of all damaged corals and of areas with significant impact to live rock habitat.

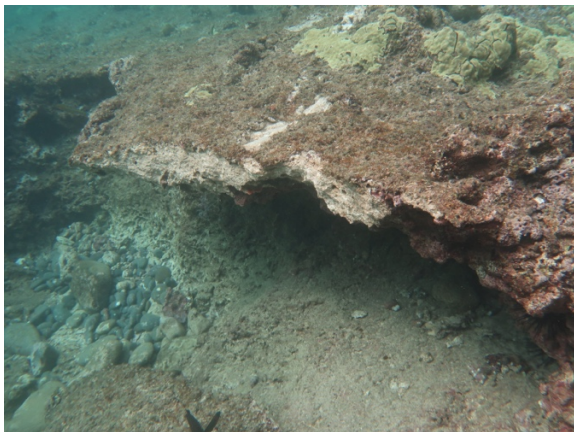


## Coral and Habitat Damage Assessment

### Measurements of Damaged Area

All impacted areas were initially identified by the dive teams and then marked and measured by laying down plastic 50-meter-long measuring tapes from the start to the end of the impact scars where they could be clearly identified with evidence of damage to the substrate. These measuring tapes would then serve as transect tapes for detailed damage assessments. The entire area was then mapped out with a diagram showing the initial impact scar, the secondary impact scar (location where the vessel remained grounded), and the salvage scar (Figure 6). To assess specific damage within these areas, divers swam along the transect tape and identified all coral colonies to species level, measuring colony size, and photographing the evidence. A 50 cm archaeological black and white pole was used to measure coral colony size and to serve as a consistent scale in the photographs.

The initial grounding incident resulted in a patchy impact scar extending 85 meters by 2 meters from a northwestern direction (170 square meters). Of this total 170 square meters of disturbed habitat, 35.5 square meters of clearly damaged high rugosity live rock habitat was specifically documented and photographed (Figures 1 & 2). In addition, there were 18 coral colonies directly damaged or destroyed during this grounding. All damaged coral colonies were individually documented during the initial grounding inspection and consisted of 8 colonies of *Pocillopora meandrina* (“cauliflower coral”) and 10 colonies of *Porites lobata* (“lobe coral”).



**Figure 1:** Photograph of an underwater shelf habitat broken off from impacts during the grounding of the vessel “Nakoa”.

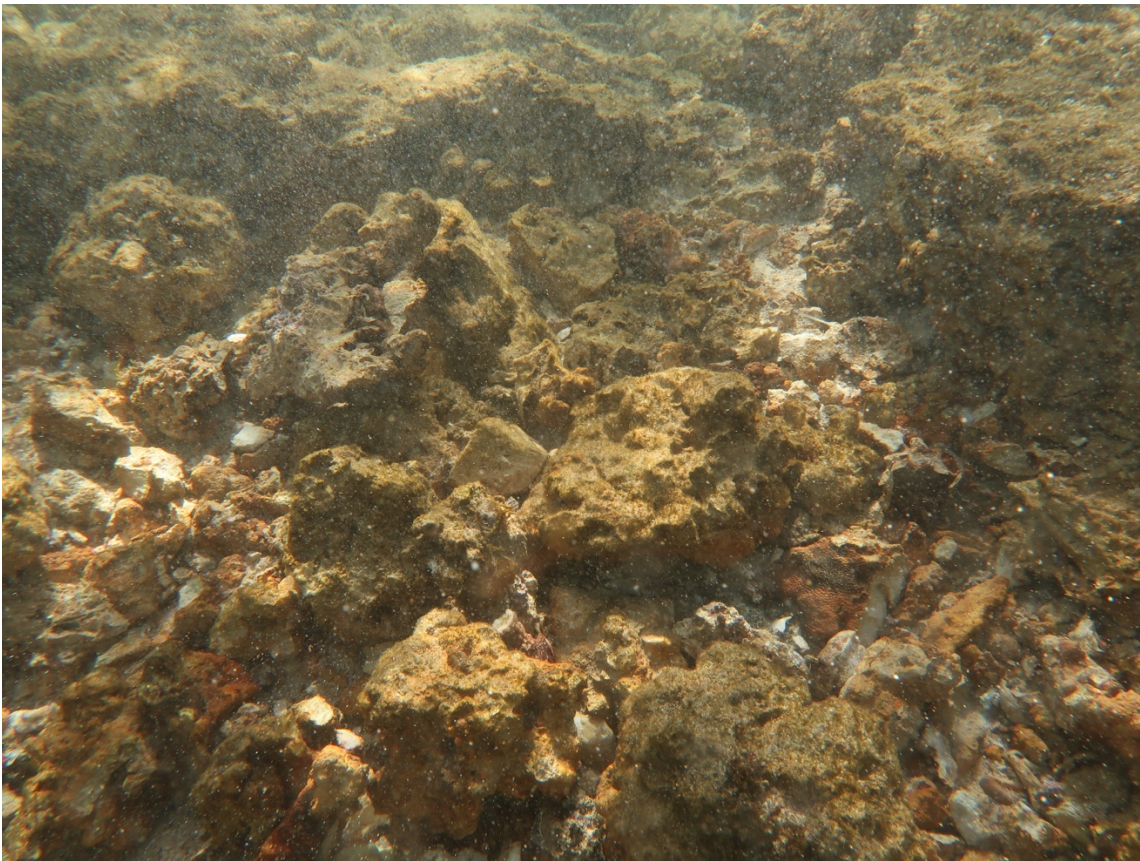


**Figure 2:** Photograph showing a section of structured habitat Smashed by the grounding event.

The vessel then remained grounded in extremely shallow water along a basalt boulder shoreline for 14 days while salvage efforts were planned and the pollutants were removed. This area where the vessel remained stranded was composed of flat carbonate pavement and basalt boulder habitat in a high wave energy environment. In this area, a total of 1,575 square meters of live rock habitat was scarred, smashed and/or disturbed (45m long by 35 m wide) (Figure 3). There

were very few live coral colonies found in this area and the substrate was covered mostly by turf algae.

The final salvage removal operation that was conducted on Sunday, March 5, 2023, resulted in a scar to the substrate that extended an additional 75 meters in a westerly direction from where the vessel was stranded. The initial 15 meters of this salvage scar consisted of two deep trench-like scars that were about 5 meters apart and were each 1 meter wide (Figures 4 & 5). This was followed by a smaller impacted area for the next 60 meters that was limited to about 2 meters of width and extended out to a final depth of 10 feet. Within the deeper habitat, the damage was patchy and mostly composed of damage to individual coral colonies. The combined hard bottom live rock substrate impacted by this salvage scar was 195 square meters. There were significant impacts to living coral colonies all along this total salvage scar area, but the most significant impact to the live rock habitat was along the two scars that each extended 15 m x 1 m (30 square meters). Coral colonies impacted included 77 colonies of *Pocillopora meandrina* (“cauliflower coral”) and 24 colonies of *Porites lobata* (“lobe coral”) for a total of 101 impacted coral colonies within the salvage scar.



**Figure 3:** Underwater photograph showing the damage to hard bottom substrate at the location where the Nakoa was grounded for 6 days.

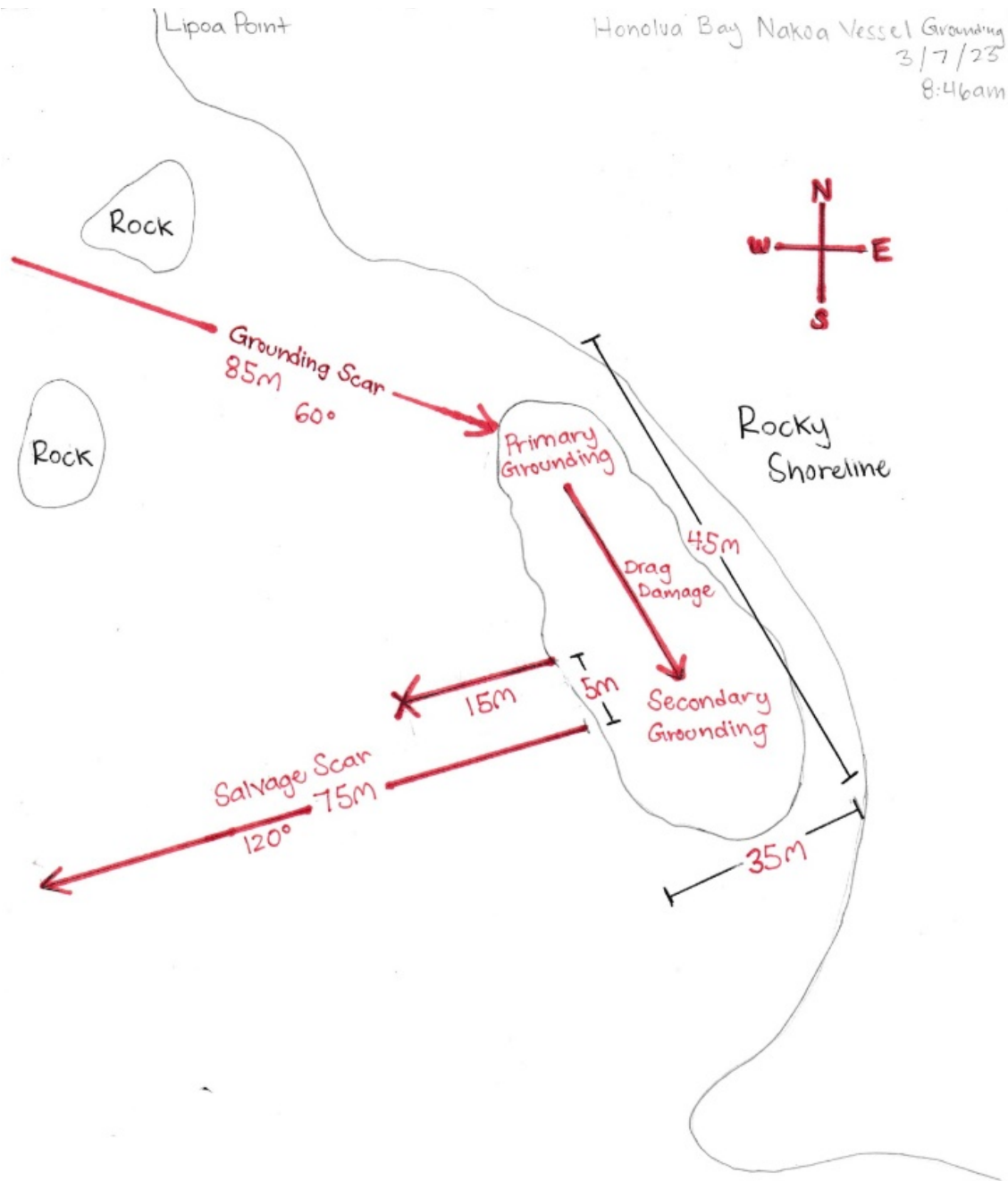


**Figure 4:** Aerial Photograph showing the two parallel salvage scars leading offshore from site. (photo by: Mark Deakos)



**Figure 5:** Underwater photograph showing coral damage along the grounding salvage scar.





**Figure 6:** Detailed map of the impact area. The map shows the Initial Grounding Scar, the salvage scar, and the secondary grounding scar (where the vessel sat for 14 days along the shoreline).

## Summary

The entire grounding and salvage incident resulted in impacts to 1,940 square meters of hard bottom nearshore habitat. Of that total impacted area, we focused our assessment on important habitats with significant and highly visible damage to live rock and on all damage to individual colonies of live corals. Key areas of damaged live rock included: 35.5 square meters of damage to high rugosity live rock habitat that occurred on the initial grounding scar; 1,575 square meters of smashed and damaged shallow hard bottom pavement and basalt boulder habitat where the vessel grounded and moved around in the waves; and 30 square meters of damage where the vessel was dragged out to deeper water resulting in deep scars into the shallow flat pavement habitat in the area. This entire impacted area is covered with highly cropped turf algae and patchy coral cover.

There was a total of 119 live coral colonies that were documented as heavily damaged or destroyed (see Appendix 1 for a full listing). The corals impacted were composed of two common species of corals found in shallow high wave energy environments and consisted of 34 colonies of *Porites lobata* (“lobe coral”) and 85 colonies of *Pocillopora meandrina* (“cauliflower coral”). The overall area was categorized as having low coral area value given that it was shallow and flat with low rugosity with total coral cover below 20%. All 34 colonies of *Porities lobata* were growing in a crustose morphology. The damaged *Pocillopora meandrina* colonies were all composed of the typical robust branching morphology found with this species.

In addition to the significant damage to live rock substrate and living corals, there were unidentified impacts to the ecosystem that likely resulted from diesel fuel that leaked from the vessel into the nearshore waters. This report is not intended to assign a specific value to the ecosystem damage sustained by this event, but rather should serve as a complete documentation and accounting of the damages sustained, which can assist in the process of determining what monetary compensation is appropriate.

**Appendix 1****Table 1: *Pocillopora meandrina* Corals Damaged by the Nakoa grounding. Table shows the estimated coral colony size, the picture number that documented that specific damage, and the observer who took the photo.**

<i>Pocillopora meandrina</i> Colonies			
	Size (cm)	Pic #	Observer
1	30	2735	R. Sparks
2	30	2736	R. Sparks
3	40	2743	R. Sparks
4	40	2746	R. Sparks
5	40	2747	R. Sparks
6	40	2751	R. Sparks
7	40	2753	R. Sparks
8	40	2755	R. Sparks
9	30	2206-2208	K. Stone
10	10	2209	K. Stone
11	30	2210	K. Stone
12	30	2211	K. Stone
13	20	2214	K. Stone
14	20	2214	K. Stone
15	40	2215	K. Stone
16	40	2217	K. Stone
17	30	2219	K. Stone
18	40	2218	K. Stone
19	30	2220-21	K. Stone
20	20	2222	K. Stone
21	25	2224	K. Stone
22	40	2225	K. Stone
23	20	2229	K. Stone
24	25	2231	K. Stone
25	40	2232-partial	K. Stone
26	20	2233	K. Stone
27	30	2234	K. Stone
28	30	2235	K. Stone
29	20	2237	K. Stone
30	20	2238	K. Stone
31	40	2240	K. Stone
32	30	2240	K. Stone
33	30	2241	K. Stone

34	30	2241	K. Stone
35	40	2242	K. Stone
36	20	2244	K. Stone
37	45	2245	K. Stone
38	20	2246	K. Stone
39	30	2246	K. Stone
40	40	2247	K. Stone
41	40	2248-49	K. Stone
42	30	2250	K. Stone
43	20	2251	K. Stone
44	25	2252-53	K. Stone
45	30	2256-57	K. Stone
46	30	2256-57	K. Stone
47	20	2258	K. Stone
48	35	2259	K. Stone
49	35	2260	K. Stone
50	50	2261-62	K. Stone
51	40	2263	K. Stone
52	30	2266-67	K. Stone
53	30	2268	K. Stone
54	30	2269	K. Stone
55	30	2270	K. Stone
56	50	2270	K. Stone
57	30	2272	K. Stone
58	40	2277-78	K. Stone
59	50	2279-82	K. Stone
60	30	2283	K. Stone
61	40	2284-85	K. Stone
62	30	2286	K. Stone
63	20	2289	K. Stone
64	30	2287	K. Stone
65	35	2292	K. Stone
66	35	2294	K. Stone
67	25	2296	K. Stone
68	30	2298	K. Stone
69	25	2299	K. Stone
70	15	2301	K. Stone
71	40	2214-2219	T. Martinez
72	30	2218-2222	T. Martinez
73	15	2246-2248	T. Martinez
74	12	2249-2252	T. Martinez
75	25	2271-2273	T. Martinez

76	10	2277-2278	T. Martinez
77	10	2283-2284	T. Martinez
78	40	2294-2296	T. Martinez
79	35	2298-2302	T. Martinez
80	30	2305-2307	T. Martinez
81	20	2308-2309	T. Martinez
82	30	2310-2312	T. Martinez
83	20	2315	T. Martinez
84	20	2318	T. Martinez
85	30	2319	T. Martinez

**Table 2. *Porites lobata* Corals Damaged by the Nakoa grounding. Table shows the estimated coral colony size, the picture number that documented that specific damage and the observer who took the photo.**

<i>Porites lobata</i> Colonies			
	Size (cm)	Pic #	Observer
1	50	2737	R. Sparks
2	50	2739	R. Sparks
3	60	2742	R. Sparks
4	50	2745	R. Sparks
5	50	2745	R. Sparks
6	100	2748	R. Sparks
7	60	2749	R. Sparks
8	80	2750	R. Sparks
9	60	2751	R. Sparks
10	30	2751	R. Sparks
11	20	2209	K. Stone
12	50	2212	K. Stone
13	30	2213	K. Stone
14	40	2214	K. Stone
15	40	2216	K. Stone
16	50	2223	K. Stone
17	20	2226	K. Stone
18	25	2227	K. Stone
19	20	2228	K. Stone
20	30	2230	K. Stone
21	20	2232	K. Stone
22	40	2236	K. Stone
23	25	2239	K. Stone
24	40	2243	K. Stone
25	25	2252-53	K. Stone



26	40	2254-55	K. Stone
27	30	2264-65	K. Stone
28	20	2271	K. Stone
29	35	2275	K. Stone
30	12	2269-2270	T. Martinez
31	15	2281-2282	T. Martinez
32	35	2284-2285	T. Martinez
33	20	2313-2314	T. Martinez
34	30	2316	T. Martinez

**EXHIBIT B –**  
**CORAL AND LIVE ROCK PENALTY MATRICES**

## CORAL PENALTY MATRIX

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

## 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

## 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

## LIVE ROCK PENALTY MATRIX (m<sup>2</sup>)

	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 (m<sup>2</sup>)

	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 (m<sup>2</sup>)

	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	