APPENDIX F – COMMENTS AND RESPONSES TO DEIS

On Thu, Aug 27, 2020 at 12:36 AM Kaimanaonalani Makekau <klove.silva@gmail.com> wrote:

This is a COMPLAINT and a statement of me OPPOSING the construction on Kaanapali Beach!

Aloha Kaimana Makekau,

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Kaimanaonalani Makekau
klove.silva@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Kaimanaonalani Makekau,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

We would like to clarify that construction of structures are not proposed on the beach. The proposed project involves recovering sand from an offshore source, which is likely deposits of sand lost from vicinity beaches and restoring the beach between Hanaka'ō'ō Beach Park and Pu'u Keka'a.

The EIS discusses the proposed project in detail in Section 1. Sections 1.5 and 1.6 provide specifics for the beach restoration and sand recovery actions, respectively.

The EIS addresses potential impacts and discusses their anticipated scale and duration. Please refer to Section 2 of the EIS for a detailed discussion on the marine and coastal environments.

Additionally, there is a summary of anticipated impacts for the proposed project and alternatives in Section 5 and also a detailed discussion of mitigation and monitoring that can be found in Section 7 of the EIS.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

In Reply Refer to:
01EPIF00-2020-TA-0459

September 11, 2020

Ms. Kimberly Tiger Mills
State of Hawaii, Department of Land and Natural Resources
Office of Conservation and Coastal Lands
Post Office Box 621
Honolulu, Hawaii 96809

Subject: Technical Assistance for the Draft Environmental Impact Statement for the Kaanapali Beach Restoration and Berm Enhancement Project, Island and County of Maui

Dear Ms. Kimberly Tiger Mills:

The U.S. Fish and Wildlife Service (Service) received your correspondence on August 24, 2020, requesting comments for the Draft Environmental Impact Statement for the Kaanapali Beach Restoration and Berm Enhancement Project Assessment [Tax Map Key (TMK): Seaward of (2) 4-4-013:007; (2)4-4-013:006; (2) 4-4-013:008; (2) 4-4-013:013; (2) 4-4-013:002; (2) 4-4-013:001; (2) 4-4-008: 022; (2) 4-4-008; 019; (2) 4-4-008:001; (2) 4-4-008:002; (2) 4-4-008:003; (2) 4-4-008:005; (2) 4-4-008]. The Service offers the following comments to assist you in your planning process so that impacts to trust resources can be avoided through site preparation, construction, and operation. Our comments are provided under the authorities of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C 1531 *et seq.*).

Project Description

The State of Hawaii and the Kaanapali Operations Association, Inc. have developed a plan to ensure the long-term viability of the sandy coastal resource, which includes both restoration and berm enhancement. The beach restoration is proposed for the section of beach between Hanakaoo Beach Park and Hanakaoo Point (Honakaoo Littoral Cell) and the beach berm enhancement is proposed for the section of beach between Hanakaoo Point and Puu Kekaa (Kaanapali Littoral Cell). The proposed project is intended to mitigate impacts of coastal erosion and rising water levels, which are increasing with global sea-level rise as well as increased storm severity in the tropics.

The Hanakaoo Littoral Cell beach restoration would include the addition of beach quality sand from the current beach face out to the form extent of the beach in the 1980's. The proposed

project would use approximately 50,000 cubic yards of beach compatible carbonate sand to restore the beach to the approximate position as in 1988. This would widen the dry beach between 41 to 78 feet.

The Kaanapali Littoral Cell experiences significant seasonal erosion with alternating predominant wave directions in the summer and winter. The berm enhancement project would create a new reservoice of sand along the backshore to augment the current sediment system with additional volume that would help offset temporary beach loss during natural seasonal erosion cycles. This proposed project would use approximately 25,000 cubic yeards of sand to raise the beach berm elevation to 3.5 feet within the Kaanapali Littoral Cell. The berm enchancement area would extend from the vegetation in the backshore

The area of sand retrieval is located approximately 150 feet offshore of Puu Kekaa in 28 to 56 feet water depth. The proposed sand recovery method consists of a moored crane barge equipped with a clamshell bucket. The barges would be rotating between the sand deposit and the two off-loading sites, where the barges would be moored to an elevated trestle or floating bridge to shore. The sand will be transferred to shore along the trestle or bridge system. The land based equipment would transfer the sand from the shoreline to the placement area for the sand to be spread along the shore and berm enhancement areas.

The project is expected to last approximately two months; sand recovery, transfer, and placement activities are expected to take place at least 12 hours per day, seven days per week. The work is projected to take place during October, November, and part of December to minimze overlap with southern summer swell and northern winter swell environments.

Based on information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Project, there are ten listed species in the immediate vicinity of the project area: the federally endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the **t**hreatened nene (Hawaiian goose, *Branta (Nesochen) sandvicensis*), the threatened Green sea turtle (*Chelonia mydas*), the endangered Hawksbill sea turtle (*Eretmochelys imbricata*), the endangered Hawaiian yellow-faced bees (*Hylaeus anthracinus*, *H. assimulans*, *H. facilis*, *H. hilaris*, and *H. longiceps*). Additionally, the endangered Hawaiian petrel (*Pterodroma sandwichensis*), the endangered band-rumped storm-petrel (*Oceanodroma castro*), and the threatened Newell's shearwater (*Puffinus auricularis newelli*) may transit the project area flying to upland breeding colonies. Wedge-tailed shearwaters (*Ardenna pacificus*), a non-listed species that is protected under the Migratory Bird Treaty Act, may also occur in the coastal area adjacent to the project.

To avoid and minimize potential project impacts to listed species, the following measures are recommended:

Hawaiian hoary bat

The federally endangered Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away.

Additionally, Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

To avoid and minimize impacts to the endangered Hawaiian hoary bat we recommend you incorporate the following applicable measures into your project description:

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15).
- Do not use barbed wire for fencing.

Hawaiian goose

The federally threatened Hawaiian goose is found on the islands of Hawaii, Maui, Molokai, and Kauai. They are observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands and shrublands, and lava flows. Threats to the species include introduced mammalian and avian predators, wind facilities, and vehicle strikes.

To avoid and minimize potential project impacts to Hawaiian geese we recommend you incorporate the following applicable measures into your project description:

- Do not approach, feed, or disturb Hawaiian geese.
- If Hawaiian geese are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with the nesting behavior of nene survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
    - Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed work, or a previously undiscovered nest is found within said radius after work begins.
- In areas where Hawaiian geese are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

Green and Hawksbill sea turtles

The Service consults on sea turtles and their use of terrestrial habitats (beaches where nesting and/or basking is known to occur), whereas the National Marine Fisheries Service (NMFS) consults on sea turtles and their use of off-shore and open ocean habitats. We recommend that you consult with NMFS regarding the potential impacts from the proposed project to sea turtles in off-shore and open ocean habitats.

Green sea turtles may nest on any sandy beach area in the Pacific Islands. Hawksbill sea turtles exhibit a wide tolerance for nesting substrate (ranging from sandy beach to crushed coral) with nests typically placed under vegetation. Both species exhibit strong nesting site fidelity. Nesting occurs on beaches from May through September, peaking in June and July, with hatchlings emerging through November and December.

Construction on, or in the vicinity of, beaches can result in sand and sediment compaction, sea turtle nest destruction, beach erosion, contaminant and nutrient runoff, and an increase in direct and ambient light pollution which may disorient hatchlings or deter nesting females. Off-road vehicle traffic may result in direct impacts to sea turtles and nests, and also contributes to habitat degradation through erosion and compaction.

Projects that alter the natural beach profile, such as nourishment and hardening, including the placement of seawalls, jetties, sandbags, and other structures, are known to reduce the suitability of on-shore habitat for sea turtles. These types of projects often result in sand compaction, erosion, and additional sedimentation in nearshore habitats, resulting in adverse effects to the ecological community and future sea turtle nests. The hardening of a shoreline increases the potential for erosion in adjacent areas, resulting in subsequent requests to install stabilization structures or conduct beach nourishment in adjacent areas. Given projected sea level rise estimates, the likelihood of increase in storm surge intensity, and other factors associated with climate change, we anticipate that beach erosion will continue and likely increase.

Where possible, projects should consider alternatives that avoid the modification or hardening of coastlines. Beach nourishment or beach hardening projects should evaluate the long-term effect to sea turtle nesting habitat and consider the cumulative effects.

Based on the best available information, sea turtle nesting, basking, and strandings have occured within the project area within the last several years. Given the presese of sea turtles in the immediate area and a documented history of nesting, we recommend you incorporate the following applicable measures into your project description:

- No vehicle use on or modification of the beach/dune environment during the sea turtle nesting or hatching season (May to December).
- We recommend you consult with the Service three weeks prior to project commencement to obtain the latest information on sea turtle activity in the area. Should there be any sea turtle activity occurring in the area, we recommend monitoring timeline and plan be discussed with the Service.
- Do not remove native dune vegetation.
    - Incorporate applicable best management practices regarding Work in Aquatic Environments (see enclosed) into the project design.
    - Have a biologist familiar with sea turtles conduct a visual survey of the project site to ensure no basking sea turtles are present.
        - If a basking sea turtle is found within the project area, cease all mechanical or construction activities within 100 feet until the animal voluntarily leaves the area.
        - Cease all activities between the basking turtle and the ocean.
    - Remove any project-related debris, trash, or equipment from the beach or dune if not actively being used.
    - Do not stockpile project-related materials in the intertidal zone, reef flats, or stream channels.
    - Create a designated staging area for land equipment off of the sand/beach at the end of each work day.

Lighting: Optimal nesting habitat is a dark beach free of barriers that restrict sea turtle movement. Nesting turtles may be deterred from approaching or laying successful nests on lighted or disturbed beaches. They may become disoriented by artificial lighting, leading to exhaustion and placement of a nest in an inappropriate location (such as at or below the high tide line). Hatchlings that emerge from nests may also be disoriented by artificial lighting. Inland areas visible from the beach should be sufficiently dark to allow for successful navigation to the ocean.

To avoid and minimize project impacts to sea turtles from lighting we recommend incorporating the following applicable measures into your project description:

- Avoid nighttime work during the nesting and hatching season (May to December).
- Minimize the use of lighting and shield all project-related lights so the light is not visible from any beach.
    - If lights can't be fully shielded or if headlights must be used, fully enclose the light source with light filtering tape or filters.
- Incorporate design measures into the construction or operation of buildings adjacent to the beach to reduce ambient outdoor lighting such as:
    - Tinting or using automatic window shades for exterior windows that face the beach;
    - Reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and
    - Minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

Wedge-tailed shearwater

Unlike other Hawaiian seabird species, wedge-tailed shearwaters nest in littoral vegetation along coastlines. Nesting adults, eggs, and chicks are particularly susceptible to impacts from human disturbance and predators.

To avoid and minimize potential project impacts to wedge-tailed shearwaters we recommend you incorporate the following applicable measures into your project description:

- Conduct surveys throughout the project area during the species' breeding season (March through November) to determine the presence and location of nesting areas. The Maui Nui Seabird Project (https://www.mauinuiseabirds.org/) can provide additional guidance on the presence of wedge-tailed shearwaters in the vicinity of the project area.
- If wedge-tailed shearwaters nest within the proposed project area and ground disturbance is expected to occur, time project construction outside of the breeding season.
- If outdoor lighting is used, use light shields that are completely opaque, appropriately sized, and positioned so that the bulb is only visible from below and that light from the shielded source cannot be seen from the beach;.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.

Hawaiian petrel, Newell's shearwater, and band-rumped storm petrel

Hawaiian seabirds may traverse the project area at night during the breeding, nesting and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable.

To avoid and minimize potential project impacts to seabirds, the project:

- Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

Hawaiian yellow-faced bee

Table 1. General species information (bold islands are known populations):

Species	**Island(s)**	**Habitat**
H. anthracinus	**Hawaii, Maui, Kahoolawe,** Lanai, **Molokai, Oahu**	Coastal and lowland dry forests
H. assimulans	**Maui, Kahoolawe, Lanai,** Oahu	Coastal and lowland dry forests
H. facilis	Maui, Lanai, **Molokai, Oahu**	Coastal and dry and mesic shrublands and forests
H. hilaris	Maui, Lanai, **Molokai**	Coastal to dry forest; obligate parasite on *H. anthracinus*, *H. longiceps*, and *H. asssimulans*.
H. longiceps	**Maui, Lanai, Molokai, Oahu**	Coastal and dry shrubland

Coastal populations of yellow-faced bees occur in habitat along rocky shorelines with *Scaevola taccada* (naupaka) and *Heliotropium foertherianum* (tree heliotrope) with either landscaped vegetation, alien kiawe (*Prosopis pallida*), or bare rock inland. Bees are restricted to an extremely narrow corridor, typically 10–20 meters wide, and do not occur on sandy beaches or inland, or on landscaped native plants on hotel grounds. Documented nectar plants include naupaka, *Sida fallax* (ilima), *Chamaesyce* spp. (akoko), *Argemone glauca* (pua kala), *Myoporum sandwicense* (naio), and tree heliotrope.

Threats to yellow-faced bees include habitat destruction and modification from land use change, nonnative plants, ungulates, and fire, along with predation by nonnative ants and wasps.

To avoid and minimize project impacts to yellow-faced bees and their nests, we recommend you incorporate the following applicable measures into your project description:

- If an action will occur in or adjacent to known occupied habitat, a buffer area around the habitat may be required and can be worked out on a site-specific basis through consultation with the Service.
- For coastal species, protect all coastal strand habitat from human disturbance, including:
    - No fires or wood collecting
    - Leave woody debris in place
    - Restrict vehicles to existing roads and trails
    - Post educational signs to inform people of the presence of sensitive species.

If this potential project should receive federal funding, federal permits, or any federal authorization, it will require a Section 7 consultation with the Service. The Service only conducts Section 7 consultations with the federal action agency or their designated representative.

Thank you for participating with us in the protection of our endangered species. If you have any further questions or concerns regarding this consultation, please contact Eldridge Naboa, Fish and Wildlife Biologist, 808-933-6964, e-mail: eldridge_naboa@fws.gov. When referring to this project, please include this reference numbers: ***01EPIF00-2020-TA-0459***.

Sincerely,

Michelle Bogardus
Island Team Manager
Maui Nui and Hawaii Island

Attachments:
Aquatic Environments – Best Management Practices

U.S. Fish and Wildlife Service
Recommended Standard Best Management Practices

The U.S. Fish and Wildlife Service (USFWS) recommends the following measures to be incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Best Management Practices (BMPs) include the incorporation of procedures or materials that may be used to reduce either direct or indirect negative impacts to aquatic habitats that result from project construction-related activities. These BMPs are recommended in addition to, and do not over-ride any terms, conditions, or other recommendations prepared by the USFWS, other federal, state or local agencies. If you have questions concerning these BMPs, please contact the USFWS Aquatic Ecosystems Conservation Program at 808-792-9400.

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats beyond the planned project area.

2. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods are variable throughout the Pacific islands, we recommend contacting the relevant local, state, or federal fish and wildlife resource agency for site specific guidance.

3. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs should be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.

4. All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see http://www.haccp-nrm.org/Wizard/default.asp) can help to prevent attraction and introduction of non-native species.

5. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (*e.g.*, with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.

6. Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.

7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Michelle Bogardus, Island Team Manager
US Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

RE: 01EPIF00-2020-TA-0459

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Bogardus,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. USFWS identified ten listed species in the immediate vicinity of the project area.
    a. The federally endangered Hawaiian hoary bat (Lasiurus cinereus semotus),
    b. the threatened nene (Hawaiian goose, Branta (Nesochen) sandvicensis),
    c. the threatened Green sea turtle (Chelonia mydas),
    d. the endangered Hawksbill sea turtle (Eretmochelys imbricata),
    e. the endangered Hawaiian yellow-faced bees (Hylaeus anthracinus, H. assimulans, H. facilis, H. hilaris, and H. longiceps).
    f. Additionally, the endangered Hawaiian petrel (Pterodroma sandwichensis),
    g. the endangered band-rumped storm-petrel (Oceanodroma castro),
    h. and the threatened Newell's shearwater (Puffinus auricularis newelli) may transit the project area flying to upland breeding colonies.
    i. Wedge-tailed shearwaters (Ardenna pacificus), a non-listed species that is protected under the Migratory Bird Treaty Act, may also occur in the coastal area adjacent to the project.

2. Specific best management practices were recommended for each species, as well as general recommendations for project management.

Unless stated otherwise below, the recommendations have been added to the EIS in Section 7.2 During Construction Mitigation and Monitoring.

3. Vehicles on and modification of the beach environment
   Project schedule is based on seasonal ocean conditions. October through early December are statistically the months with safest conditions for conducting the proposed marine and coastal project. In an effort to maximize public health, welfare, and safety, as well as the safety and security of the construction team, the project has been scheduled for these months.

   Consultation with the Services to obtain the latest information on sea turtle activity in the area will take place and additional BMPs shall be employed to avoid impact to sea turtle nests and hatchlings during this period, including constant monitoring of the beach and ocean during beach restoration activities.

4. Avoid nighttime work
   The project schedule requires some efforts to begin before first light and other efforts to extend after last light each day. In an effort to minimize potential impacts to native species, all lighting shall be shielded or taped, and reduced to the minimum level feasible during pre-dawn and after dusk operations.

5. Avoid scheduling dredging/filling work during sea turtle nesting and hatching periods.
   Project schedule is based on seasonal ocean conditions. October through early December are statistically the months with safest conditions for conducting the proposed marine and coastal project. In an effort to maximize public health, welfare, and safety, as well as the safety and security of the construction team, the project has been scheduled for these months.

   Consultation with the Services to obtain the latest information on sea turtle activity in the area will take place and additional BMPs shall be employed to avoid impact to sea turtle nests and hatchlings during this period, including constant monitoring of the beach and ocean during beach restoration activities.

6. Fueling project-related equipment adjacent to the aquatic environment
   Some project related equipment will be water-borne and will require fueling in the marine environment. All marine fueling areas will include primary and secondary containment materials. Each vessel will have a spill control plan and a contingency plan for inclement weather.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information and ways to contact us will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Kennadee Keiser <kennkeiser@gmail.com>
Sent: Thursday, September 17, 2020 10:22 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>
Subject: [EXTERNAL] Sand renourishment

Hey Sam, this email is coming from Kennadee Keiser and I kindly ask you to please stop the Sand Renourishment Projects. Please think of the marine life that will be hurt since the sand will bury the reef leading to loss of marine life. Therefore killing an entire ecosystem, if this project continues. We live on an island it’s our kuleana to take care of the marine life and not destroy.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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OFFICE OF CONSERVATION AND COASTAL LANDS
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June 8, 2021

Kennedee Keiser
kennkeiser@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Kennedee Keiser,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

The EIS addresses potential impacts and discusses their anticipated scale and duration. Please refer to Section 2 of the EIS for a detailed discussion on the marine and coastal environments.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

On Thu, Sep 24, 2020 at 3:59 PM Grace Delos Reyes <graciedelosreyes@me.com> wrote:

My name is Grace Delos Reyes. I live in Lahaina, Maui. I am commenting on the proposal of sand replenishment on Kaanapali Beach, Maui. I am opposed of this project for the following reasons:

1. In a time of a global pandemic, where there is limited to no travel taking place worldwide, let alone to Hawaii, I find it absurd to spend taxpayers' dollars to "enhance" a beach that is catered to tourism. The Governor has already stated that he is going to cut State employees' wages because there is a shortage of funds. Yet, here we are asking taxpayers to "replenish" the sand on a beach.

2. Every year, we all know that sand moves from Black Rock to Hanakao`o Beach depending on the time of year. It's called nature. Just as the water ebbs and flows, so does the sand. I believe the sand will "disappear" within a short time, just as it did on Waikiki Beach. Therefore, yet again, wasting taxpayers' dollars- during a global pandemic.

3. Additionally, the source of the sand acquisition will be disrupted, potentially permanently damaging the ecosystem. Let us also remember, the Humpback Whales breed and give birth in these waters. As many of you are NOT marine biologists, yet I am sure enjoy the bounties of the sea, you will be allowing the destruction of an ecosystem that feeds the local community, like yourselves. So now, you are asking the taxpayers to not only take a cut in pay, but also are now taking away some people's food source for "sand" to make a beach look prettier to tourists that aren't coming here.

4. Literally EVERY SINGLE bullet point that is described as an "adverse environmental effect" is of great concern. If you want to say it is to enhance tourism, every one of these points is going to destroy the ocean, beach, & the views. It will no longer be one of the top 20 beaches of the world. I truly don't understand how this project has made it this far in the process.

I vigorously oppose this project and start redirecting this allocated money to enhancing and supporting the local communities.

Thank you for your time,

Grace Delos Reyes

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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LAND
STATE PARKS

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Grace Delos Reyes
graciedelosreyes@me.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Delos Reyes,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

We understand that times are financially difficult for many during the pandemic, and that beach nourishment is an interim, mid-term step, not a long-term solution for coastal management. But beaches are treasured resources in Hawai'i and all parties want to maintain them for as long as possible.

Funding for the project will be provided by both the State of Hawai'i Department of Land and Natural Resources (DLNR) and the Kā'anapali Operations Association (KOA), with close to an even cost share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

KOA is an active member of the community and a faithful partner to the State in this endeavor. During typical years, Kā'anapali employs roughly 5,000 people, provides nearly $230 million in income, pays approximately $180 million in State and County taxes, not including income tax on the $230 million contributed in salaries. In addition, KOA donates more than $1 million to support local

nonprofit organizations and provides more than $5 million in community service and support. KOA's participation and support in this project is in keeping with their ongoing commitment to the West Maui community.

Within the United States, beach nourishment projects have been documented as providing rewarding returns on investment at the federal, state, and local levels. Projects funded and completed in Florida have been analyzed in detail to explore the relationship between funding dollars and return on investment. The figure below, from a 2018 study* shows the relationship between funding for nourishment projects and tax revenue generated by beach tourists in Florida. Beach restoration projects in Hawai'i are generally smaller-scale (length of coastline and volume of sand) than in Florida and elsewhere on continental coasts and are developed and implemented specifically to suite Hawaii's unique coastal environments. However, the general finding that beach nourishment projects provide a good return on investment appears to apply to Hawai'i scale projects, also. The State economy of Hawai'i, similar to Florida, has a strong relationship with the tourism sector.

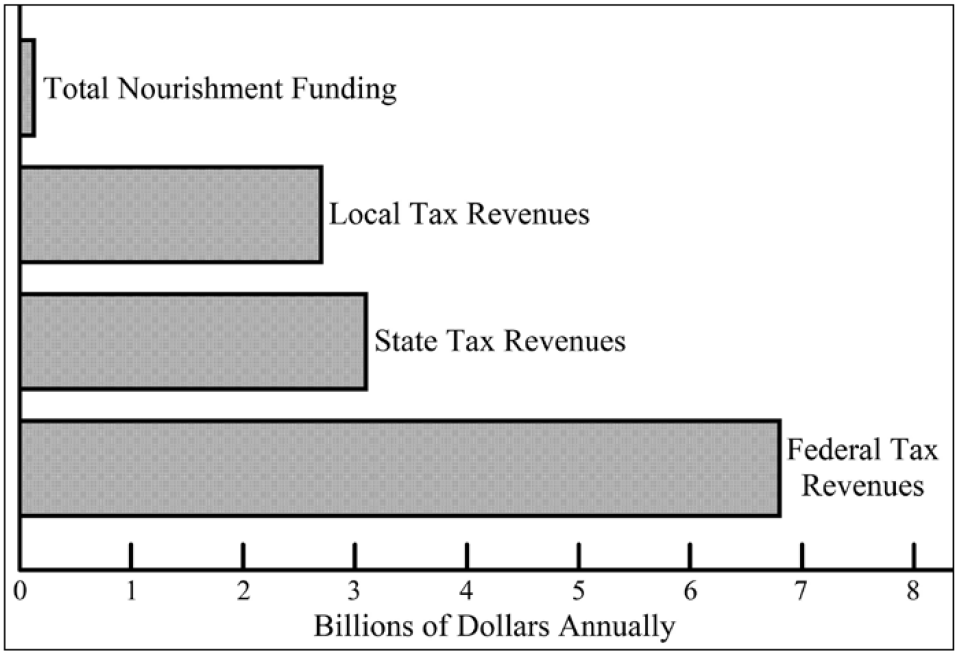

Figure 1. Comparison beach nourishment funding costs to beach tourist generated tax income generated annually in Florida (Houston, J.R. 2018. *The economic value of Florida's beaches.* Shore and Beach, Vol 86, No. 3., pp. 3 – 13.).

After a thorough review of the funding sources, costs, and benefits, we believe that restoration of the beach environment is not only a worthwhile endeavor in terms of conserving the public trust beach, shoreline access, and coastal ecosystem but is also an attractive and rewarding investment in and for the community.

The FEIS addresses potential impacts and discusses their anticipated scale and duration. Please refer to Section 2 of the EIS for a detailed discussion on the marine and coastal environments.

Existing coastal dynamics, expected project lifespan, nearshore bathymetry, and sand characteristics are discussed in detail within the EIS. The information can be found in Sections 1.5.4, 2.1.8, and 2.1.9.

Additional details on the sand recovery area, offshore bathymetry, sand characteristics, marine biology, potential impacts of the proposed and alternative projects, and mitigation and monitoring are discussed in the EIS. Details can be found in Sections 1.5.3, 2.1.7, 2.1.9, 2.1.11, 6, and 7.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

On Sun, Sep 20, 2020 at 7:05 AM Richard Roshon <richard.roshon@gmail.com> wrote:

I think it's been at leas a year since I wrote to you concerning the so-called beach restoration project for Kaanapali Beach. Sept 3rd Lahaina News a full page article was again written and I was surprised to see my name and my comments included. How my name got into the article? but that's okay, (as I stand by my words, which are not based on professional studies, but on my own personal observations and feelings for the preservation of these coastal waters). Probably my words will make no difference. Bottom line is man's main attribute (GREED).

Since the shutdown of the islands I am amazed as to the even more marine life than I've ever seen along this area. Hundreds of fish in large schools, crabs abundant etc. Reason, perhaps no body oils, suntan lotion which breaks down into peroxide and kills the reefs.

The oceans are rising, that is a fact, and I feel no matter how much sand in brought in - it will not last. A quick fix while the marine world suffers (out of sight-out of mind).

As my words in the article refer to sand that will drift north upon the reefs, and perhaps smother the living coral which is a plant, and food for fish.

As a writer and if you are interested I would like to forward you some of my articles pertaining to the oceans. Such as the following paragraph.

As my early travels have taken me nearly around the world by sailing I sailed through the North Pacific Convergence Zone several times. One thousand miles of the coast of the Pacific NW, we sailed through more than 14 hours of garbage, plastic, furniture, fishing gear, etc and dead marine life. It brings tears, are footprints are everywhere, and this is the site on the beach of Lanai facing Maui, (attachment) and some other images.

I hope you and your family are well and safe

Aloha Richard Roshon

www.hawaiiwhalesrus.com

From: Richard Roshon <richard.roshon@gmail.com>

Date: Mon, Oct 5, 2020 at 1:30 PM

Subject: Aloha Chris

To: Chris Conger <cconger@seaengineering.com>

Feel free to pass the attachment on, perhaps to a magazine you may be in contact with, letter to the editor in Honolulu, etc.

Hope all is well.

Aloha Richard

HAWAII-WHALES-R-US

DEDICATED TO LIVING IN BALANCE WITH OUR MARINE ENVIRONMENT

Garth Richard Craig Roshon – *Lecturer, author, Kayak Entrepreneur*

Established 1975

CAUSE & EFFECT =
REASON & RESPONSE=NEGATIVE & POSITIVE

PLANET EARTH

In my early days after View Nam I sailed nearly around the world by crewing on sailboats – (someone always looking for crew to foreign destinations), Over the past 4 decades I've logged over 30,000 miles of kayaking throughout the Hawaiian Archipelago. I have probably spent more time of my life upon the world's ocean than on land.

I am an avid reader, primarily during the age of discovery, (the sailing era) where men knew what cloud formations, the feel, smell, the direction of the wind and the movement of the sea – meant in reference of up-coming weather.

In the many decades of my life traveling upon our worlds oceans, I too have studied the same characteristics of up coming weather, especially in crossing these open ocean channels of Hawaii in my 19' Eskimo Expedition Sea Kayak.

My observations of the sea, weather, marine life on Planet Earth has been shared over the past 5 decades through my writings/lectures.. Planet Earth as ourselves and all life need to breathe fresh clean air that's just common sense. I am not an educated individual as I barely made it out of high school.

The following is an excerpt from my self-published book:

"Earth and sky, woods & fields, lakes and rivers, the mountain and the sea, are excellent schoolmasters, and teach some of us more than we can ever learn from books"
Sir John Lubbock 1834-1913

Year 2020 – the world of COVID 19.
The Day the Earth Stood Still.

We all know and are aware of the Negativity of this virus. However as I titled this article "Cause & Effect – Reason & Response – Negative & Positve. I want to look at the positive side -- focusing on our home **PLANET EARTH & primarily HAWAII.**

Since the beginning of time the human species has been using this natural world as a commodity, always take, take, and take.

Due to the virus, I feel Planet Earth is speaking to us, perhaps at this moment saying "Thank you"

I was surprised of how rapid Planet Earth is healing, and for me it's new found energy, at least for as long as this continues, and perhaps during this time man-kind will take a breath and "Slow down & Take a Look Around" The title of a full page article I wrote for the Maui News in the 1980's.

The Atmosphere

I was surprised soon after the recognition of COVID 19 where in China I read of how the atmosphere was cleaning up, and perhaps those in China could see stars in the Universe. I personally thought that any sign of our atmosphere cleaning up would take decades.

Hawaii, summers in Lahaina get warm, humid, but this summer I felt a change. Our days are warm of course do to direct sunlight; however our evenings for the most part have been cooling down - for as soon as we get into late afternoon I can feel the difference. Reason – I believe due to less air and road traffic which increases pollution into our atmosphere which has diminished considerably. Heat rises, and now has a window to escape. A place to escape into the upper atmosphere and beyond. Even our coastal waters seem to have a cooler effect, by being able to cool down in the longer evening hours.

HAWAII – ISOLATED- FRAGILE
THE POSITIVE SIDE

Hawaii has around 50 species of reef and around 300 species of fish, compared to continental shelves/barrier reefs where there are 1000's of both species. Due to Hawaii's isolation it is an extremely fragile natural environment both Aina-Land and the Kai-Sea.

Each morning I swim about ½ mile out from shore into the depths of about 60-80 feet.

Since Hawaii has been basically on lock down – no visitors no commercial water traffic - WHAT A CHANGE in water quality. These waters are not only clear but CLEAN.

(No body oils, no suntan lotion which breaks down to peroxide and kills the reefs), no oil and smell of gasoline.

I swim primarily over a sand bottom, and lately the amount of sea life I am witnessing is astonishing. Reef fish in abundance. I have never seen such large schools of fish. Crabs and even taco (octopus) star urchins are in numbers, along with Green Sea Turtles. THERE IS LIFE ON A SAND BOTTOM THAT MAY SEEM TO BE A DESERT. NOT TRUE.

(Other parts around the world: Fish being seen in the canals of Italy. Wild life coming out of the wood work in our National Parks). Less human life, more life. And in part perhaps due to a cleaner atmosphere.

I write in my self-published book and excerpt from Daniel Boone, Frontiersman in the 1700's. He writes *"A squirrel could get on a tree in Maine and go all the way to the Mississippi without touching the ground". Can you imagine the once cleanliness and beauty of all life that once existed on Planet Earth"?*

Our coastal waters for the time being are recovering.

The oceans regulate the temperature of Planet Earth. The seas not only have the ability to absorb but also reflect the suns rays. Warmer seas, more severe weather patterns, and more bacteria in the air, less oxygen, less food, less life.

Such as what we have seen on the East Coast of the U.S. I have sailed throughout the Caribbean where the waters are shallow far from land, as well as the Southern area of the U.S. Shallow water will become warmer. Waters surrounding Hawaii are approximately 2 miles in depth, giving more circulation due to dominant trade winds.

Suns rays penetrate to about 300 feet. In 2018 the oceans had warmed up to a depth of 1000 feet, into the abyss and darkness. THE FIRST TIME IN RECORDED HISTORY. It is also mentioned that are seas are warming about 20 miles a year from the Equator, moving north.

Keep in mind, what we do to this planet we do to ourselves. We all connected. Anyone that disbelieves this is a ??????

Usually in the summer months the coastal waters get warm, too warm to really feel comfortable especially in the lee sides of the islands where trade winds may not fill in creating less circulation movement opposed to the open seas. However this summer, as I have

mentioned a bit cooler waters or currents and we are now into October. Once again perhaps less road and air traffic = cleaner atmosphere, I feel has contributed to this event.

Man kind is playing Russian Roulette with the mere existence of life. All life is connected, and for now and as many of my friends have stated, "It's nice to live on the island where we can breathe, have some open space, clean beaches etc. Reminding many of us of the 60's & 70's.

Beaches are empty, clean, no trash, inner tubes drifting out into the channel, no suntan lotion which breaks down into peroxide and kills reefs, and no noise from commercial water activities, along with smelling fuel in the water.

I know many here on Maui are almost afraid of things opening up, where thousands upon thousands of cars will be back on the highways. I heard that Maui has more rental cars than any other island (30,000) and even though I know many need to go back to work, I pray that this has been a wake-up call.

A thought: From the Kaanapali Resort to the Kapalua resort about a 10 mile coastal area, there are probably more than 1000 toilets that have not been flushed in 6 months.

What will the future bring? Perhaps in time, right back to where we were before this virus. I like to stay optimistic, but man's main attribute is GREED = MONEY. And in my opinion that is all the Visitor Industry Cares about.

A personal note: We don't have to get up at the crack of dawn to find a parking space in order to go to the beach. It reminds me somewhat of the 60's and 70's, where residents could breathe. I'm sure I could speak for others around the world that live in a visitor destination. It's nice to be able to breathe.

What we do to this planet we do to ourselves, and we cannot live alone.

And to think that we "The human species" pat ourselves on the back and label ourselves as "INTELLIGENT". What intelligent species knowingly pollutes it own home? With very little care of concern for keeping our home (Planet Earth) CLEAN BY LIVING IN BALANCE.

Me Ke Aloha Pumehana
With Warm Aloha

Richard Roshon
www.hawaiiwhalesrus.com

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Richard Roshon
Hawaii-Whales-R-Us
www.hawaiiwhalesrus.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Roshon,

Thank you for your letters and emails regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Frances Salvato <st.fjames@gmail.com>
Sent: Tuesday, October 6, 2020 8:49:21 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] KŪanapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement

To Whom it May Concern

Thank you for soliciting comments on the Department of Land and Natural Resources' (DLNR) KŪanapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement, Lahaina, Maui, concerning areas makai of TMK Nos. (2) 4-4-013:007; (2)4-4- 013:006; (2) 4-4-013:008; (2) 4-4-013:013; (2) 4-4-013:002; (2) 4-4-013:001; (2) 4-4-008: 022; (2) 4-4-008;019; (2) 4-4-008:001;(2) 4-4-008:002; (2) 4-4-008:003; (2) 4-4-008:005; (2) 4-4- 008, noticed August 23, 2020 (project).

This project will have devastating impacts to offshore eco-systems. The state must focus on managed retreat policy instead of temporary fixes that are extremely costly and will only exacerbate coastal erosion such as seawall development.

Please consider the following comments:

1. Managed retreat planning is a needed mitigation measure for the proposed project.

2. Draft EIS does not address secondary and cumulative impacts of the project

3. "Adaptation" alternative is not adequately described or considered as an alternative.

4. Economic impacts on subsistence fishers and gatherers will be substantial even if of a short duration.

5. Post-construction public safety impacts are not identified or mitigated.

6. The project will exacerbate ocean user conflicts that are already under-regulated by the Department of Land and Natural Resources

7. The Cultural Impact Assessment took an overly narrow view on culture and failed to engage West Maui communities.

8. Cumulative impacts on cultural resources and practices are inconsistently documented.

9. Impacts of sedimentation on live corals and on essential fish habitat inadequately disclosed.

10. Impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices inadequately discussed.

In conclusion, I have serious concerns about the short and long term impacts of the proposed project as well as the kinds of minimization and mitigation measures proposed.

Thank you for your time,

Frances Salvato

Pukalani, HI

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
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June 8, 2021

Frances Salvato
st.fjames@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Salvato,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution,

intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kāʻanapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kāʻanapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

2. Secondary and Cumulative Impacts

We understand and value the public concern over potential Secondary and Cumulative impacts that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential secondary impacts to emergency services, resulting from changes to beach conditions and nearshore hazards.
- Potential secondary impacts by masking true rates of shoreline change, thereby affecting the real estate markets and coastal hazard assessments.
- Potential secondary environmental impacts resulting from recovery of sand in the offshore sand field.
- Potential cumulative impacts associated with a proposed beach restoration project five miles to the north.
- Potential cumulative impacts to cultural resources, based on potential to impact iwi kūpuna and possible contentious reaction to the project due to proximity to Puʻu Kekaʻa.

To address potential impacts to public safety, updates were made to Section 2.2.5 Coastal and Nearshore Recreation and Section 2.2.6 Public Health and Safety.

Based on community feedback, we have conducted additional site investigations and produced an addendum to the marine environmental report, which can be found in Appendix C of the FEIS. This

addendum improves the characterization of the nearshore marine environment, allowing for a more robust assessment of potential direct, secondary, and cumulative impacts to the marine environment.

To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. Post-construction monitoring proposed for this project can generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands. These post-construction monitoring efforts have been updated based on community and agency feedback and are detailed in Section 7.1 Monitoring Programs.

Additional discussion and analysis have been added to Section 2.2.7 Cultural Resources for iwi kūpuna, Pu'u Keka'a, fishing, surfing, diving, paddling, and other practices that may be impacted.

Section 2.2.5 Coastal and Nearshore Recreation has been revised to include freediving, gathering, and worship; and Section 2.2.6 Public Health and Safety has been updated to more thoroughly discuss potential impacts to the beach and nearshore, including sand compaction, nearshore bathymetry, and waves.

Section 8 Unresolved Issues has been updated to include potential impacts to cultural resources, ocean recreation, potential environmental concerns, and public safety.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS. This section has been revised to address comments received during the public comment period, including discussion during the public meeting.

3. Adaptation alternative is not adequately described or considered as an alternative

The Maui Island Plan, Policy 4.2.3, states that the visitor population on the island should not exceed one third of the resident population. Maui exceeded this ratio in 2018, as noted in your letter. Though exceedance in previous years speaks to the increase in visitors relative to residents, the proposed project is not anticipated to result in an increase in visitor accommodation space, new development, or alterations to infrastructure. The proposed project is management and restoration of an existing beach resource, not expansion.

Additional language has been added to the EIS to expand on the managed retreat discussion, including an update to Alternative 3 Adaptation. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. See response to item 1 for more details.

4. Economic impacts on subsistence fishers and gatherers will be substantial even if of short duration.

Concerns raised through public review, public meetings, and focused discussions with individuals and small groups highlighted the need to further investigate and analyze potential impacts to subsistence fishers and gatherers in the community. Public comments indicated that even a short-term impact to some of these community members could be serious.

The sand recovery area may have fisheries utilized by subsistence fishers in the region. To address this, the proposed project will:

- Require coordination between the contractor and the local subsistence fishing community. During construction the contractor and the State will provide schedule updates and maps showing the locations and timing of work.
- Relay updated schedules and projected locations for sand recovery, transport, and placement operations.
- Ensure the local subsistence fishing community has the maximum access allowable, given public safety concerns, to the sand recovery site and along the shoreline.

Post-project recovery of the ecology will range from immediately to less than a year. Previous studies and assessment of the project area indicate that many mobile species are likely to avoid the project during operation. For those species living within the sand, there will be a complete loss where sand is recovered. These species, based on previous studies and assessment of the project area, will likely return in less than one year.

Shoreline areas closed to the public will be limited to active construction areas utilized for sand offloading, sand transfer along the shoreline, and sand placement on the beach. Crossing guards will be available to assist beach users with safe transit across the transportation lanes, to and from the waterline.

Similar to the sand recovery area, previous studies indicate that mobile species in the active beach face and nearshore sand in the Hanakaʻōʻō Littoral Cell are expected to vacate the area, while those that cannot depart will be lost during beach restoration. Those intertidal species that live within the active beach face and nearshore sand in the Hanakaʻōʻō Littoral Cell are anticipated to recover in less than a year, following completion of the proposed beach restoration project.

Discussion in the EIS that relates to these resources, anticipated impacts, and the proposed mitigation, can be found in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.2.4 Beach Access
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring

Discussion has been added to the EIS in Section 8 Unresolved Issues, with respect to potential impacts to subsistence fishermen and gatherers.

5. Post-construction public safety impacts are not identified or mitigated

Public safety is discussed in several sections as it pertains to existing conditions and potential short-term and long-term impacts from the proposed project. These discussions are presented in the EIS,

Sections 2.2.4 Beach Access, 2.2.5 Coastal and Nearshore Recreation, and 2.2.6 Public Health. Additional discussion is included in Section 8 Unresolved Issues.

6. The project will exacerbate ocean user conflicts that are already under-regulated by the DLNR

Both nearshore and coastal recreation are discussed in the EIS in Section 2.2.5. There is a thorough discussion of the anticipated short-term impacts to both, and there is no expectation for long-term, secondary, or cumulative negative impacts to either nearshore or coastal recreation. Additional maps and discussion have also been added to Section 1.6, showing the sequencing and approximate daily work areas for each effort.

There is an expectation for an improvement in coastal recreation through the restoration of historic beach width in the Hanakaʻōʻō Littoral Cell and the improved beach health in the Kāʻanapali Littoral Cell.

7. The Cultural Impact Assessment took an overly narrow view on culture and failed to engage West Maui communities

We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Cultural Impact Assessment (CIA) engagement of the community was not thorough.
- The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
- "The cultural resource people should be independent and NOT those paid by the developer."
- Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
- Activities near Puʻu Kekaʻa, which is a leina a kaʻuhane, may have a cultural impact.
- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Puʻu Kekaʻa and Kekaʻa Landing.
- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui and Lānaʻi Island Burial Council. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

The Best Management Practices Plan, Section 7.2.5, contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

8. Cumulative impacts on cultural resources and practices are inconsistently documented

Based on this and other public comments, the Secondary and Cumulative Impacts section of the EIS has been revised and expanded. Please refer to the response to item 2.

9. Impacts of sedimentation on live corals and on essential fish habitat inadequately disclosed

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.

- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai‘i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O‘ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka‘ō‘ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will build upon that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes

- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

10. Impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices inadequately discussed

These discussions have been expanded to more thoroughly assess the concerns identified in the public review process. They are discussed above, in response to item 4, item 7, and item 9.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

OPPOSITION TO DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR KA'ANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT

October 2, 2020

GOVERNOR, DAVID IGE, STATE OF HAWAII

EXECUTIVE CHAMBERS, STATE CAPITOL, 415 S. BERETANIA ST., HONOLULU, 96813

Subject: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED KA'ANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT

Re: OPPOSING this DRAFT ENVIRONMENTAL IMPACT STATEMENT

Aloha Governor, Ige,

I respectfully submit for your consideration my opposition to the Draft Environmental Impact Statement for the Ka'anapali Beach Restoration and Berm Enhancement Project for the following reasons...

1. In the Sand Renourishment Meeting held on September, 24, 2020 via Zoom, Administrator of DLNR's Office of Conservation and Coastal Lands, Sam Lemmo stated half of the total cost for this project will be funded by the State of Hawaii Taxpayers.
2. It is unknown e.g. no factual basis what this projects activity will bring and impact in the long term to the ocean and shoreline environment.
3. An Archeology Survey must be carried out by "Ocean Archeologist" of the waters and area fronting Pu'u Keka'a and "Keka'a Landing" – In the late 1800's-early 1900's when Sugar was cultivated and shipped off Island for processing it went through and out at Keka'a Landing.
4. Historically, both in Hawaii's Kingdom Government Era (1810-1893) and my Family's Genealogy and Oral History, Keka'a and Pu'u Keka'a (inappropriately called "Black Rock" today) was a thriving and bustling community - frequented by some of Hawaii's Historic Leaders: Kamehameha III, John Papa II, Timoteo Ha'alilio, David Malo, etc. as well as many of my Ohana who were born, raised, worked, and original buried at Keka'a Landing and Pu'u Keka'a – which has now been replaced by hotel resorts.
5. Presently our State and the world are still in a Pandemic that has our economy and many businesses closing, some permanently and many state residents out of work. Government Furloughs are being considered in the near not far future which will further compound the issue. The money slated to fund this project

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should be spent on those who have lost their jobs and are struggling to feed/shelter their families.

We cannot afford this beach replenishment project at this time. More so since the sand will be swept back into the ocean by Mother Nature. Growing up in Lahaina I have seen this with my own eyes numerous times. For the most part we have come to respect and learn to live with nature and not try to conquer her.

Mahalo for your consideration in this matter. My passion for a healthy environment and thriving community are genuine.

SINCERELY,

FOSTER AMPONG

58 Ho'ola Hou Street, Wailuku, HI 96793 Phone: (808) 281-3894

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Foster Ampong
58 Ho'ola Hou Street
Wailuku, Hawai'i 96793

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Ampong,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. We understand that times are financially difficult for many during the pandemic, and that beach nourishment is an interim, mid-term step, not a long-term solution for coastal management. But beaches are treasured resources in Hawai'i and all parties want to maintain them for as long as possible.

   Funding for the project will be provided by both the State of Hawai'i Department of Land and Natural Resources (DLNR) and the Kā'anapali Operations Association (KOA), with close to an even cost share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

   The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

   KOA is an active member of the community and a faithful partner to the State in this endeavor. During typical years, Kā'anapali employs roughly 5,000 people, provides nearly $230 million in income, pays approximately $180 million in State and County taxes, not including income tax on the $230 million contributed in salaries. In addition, KOA donates more than $1 million to support local nonprofit organizations and provides more than $5 million in community service

and support. KOA's participation and support in this project is in keeping with their ongoing commitment to the West Maui community.

Within the United States, beach nourishment projects have been documented as providing rewarding returns on investment at the federal, state, and local levels. Projects funded and completed in Florida have been analyzed in detail to explore the relationship between funding dollars and return on investment. The figure below, from a 2018 study shows the relationship between funding for nourishment projects and tax revenue generated by beach tourists in Florida. Beach restoration projects in Hawai'i are generally smaller-scale (length of coastline and volume of sand) than in Florida and elsewhere on continental coasts and are developed and implemented specifically to suite Hawaii's unique coastal environments. However, the general finding that beach nourishment projects provide a good return on investment appears to apply to Hawai'i scale projects, also. The State economy of Hawai'i, similar to Florida, has a strong relationship with the tourism sector.

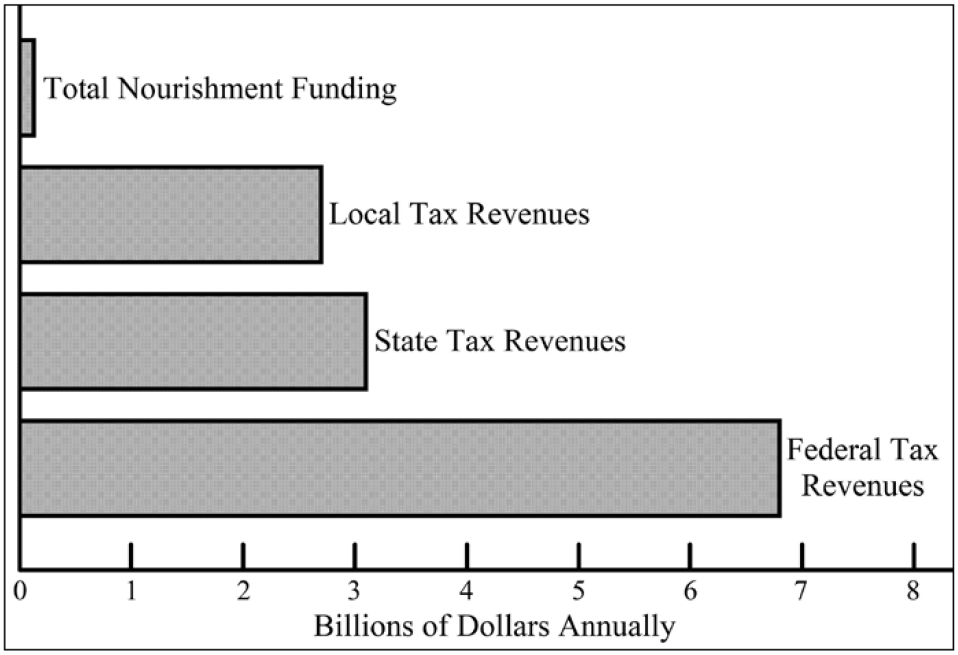

Figure 1. Comparison beach nourishment funding costs to beach tourist generated tax income generated annually in Florida. (Houston, J.R. 2018. *The economic value of Florida's beaches.* Shore and Beach, Vol 86, No. 3., pp. 3 – 13.)

After a thorough review of the funding sources, costs, and benefits, we believe that restoration of the beach environment is not only a worthwhile endeavor in terms of conserving the public trust beach, shoreline access, and coastal ecosystem but is also an attractive and rewarding investment in and for the community.

2. The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project. Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. Our belief in the importance of all the local resources led to selection of a resource restoration-based design as the preferred alternative, but only after a thorough and critical review of viable alternatives. Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

   For details on the sand recovery area, offshore bathymetry, sand characteristics, marine biology, potential impacts of the proposed and alternative projects, and mitigation and monitoring, please refer to:
   - Section 1.5.3 Sand Source – Sand Recovery Area
   - Section 2.1.7 Offshore Bathymetry
   - Section 2.1.9 Sand Characteristics
   - Section 2.1.11 Marine Biology
   - Section 6 Summary of Adverse Environmental Effects of the Preferred Alternative Which Cannot be Avoided
   - Section 7 Mitigation and Monitoring

3. To date, no archaeological sites have been discovered in or under the seafloor in the sand recovery area. The currents and wave action in the sand recovery area mobilize sand on a regular basis, which is why there is a very low fine grain content. Moreover, the general absence of an anoxic signature in the upper three feet also indicates high sediment mobility and oxygenation in the sand deposit. Detailed discussion is presented in the EIS and can be found in:
   - Section 1.5.3 Sand Source – Sand Recovery Area
   - Section 2.1.8 Nearshore Bathymetry and Coastal Processes
   - Section 2.1.9 Sand Characteristics
   - Section 2.2.7 Cultural Resources
   - Section 2.2.8 Archaeological Resources

4. We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:
   - Cultural Impact Assessment (CIA) engagement of the community was not thorough.
   - The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
   - "The cultural resource people should be independent and NOT those paid by the developer."
   - Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
   - Activities near Puʻu Kekaʻa, which is a leina a kaʻuhane, may have a cultural impact.

- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Puʻu Kekaʻa and Kekaʻa Landing.
- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui Lanaʻi Island Burial Council. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project. Based on this thorough process and its results, as presented in the FEIS, no changes are recommended to CIA.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety,
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources

- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

Section 7.2 During Construction Mitigation and Monitoring contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

5. With respect to your concern about funding for the proposed project, please refer to the answer in point 1, above.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

October 5, 2020

Environmental Impact Statement Preparation Notice (EISPN) Comment
Kāʻanapali Beach Restoration and Berm Enhancement project.
Seaward of TMKs (2) 4-4-013:007, (2) 4-4-013:006, (2) 4-4-013:008, (2) 4-4-013:013, (2) 4-4-013:002, (2) 4-4-013:001, (2) 4-4-008:022, (2) 4-4-008:019, (2) 4-4-008:001, (2) 4-4-008:002, (2) 4-4-008:003, (2) 4-4-008:005, Kāʻanapali, Maui, Hawaiʻi.

Questions and concerns

Will the shoreline be certified before start?

Will the project delineate private and public properties?

Will the sand be placed on public or private property?

What is the value of the sand?

How will the volume of sand be determined? 75,00 cubic yards is 3 cubic yards over the distance of the project. It doesn't seem like it is enough.

Why is the state contributing towards the cost of the project?

How will the residents of Maui benefit from the project?

Areas of planting of native and endemic plants should be permanently off limits to allow plants to grow. People trampling over area kill plants.

Mother Nature uses the sand to filter runoff before it enters ocean. Sand plugs fronting water runoff areas should never be removed or unplugged to allow runoff into the ocean. Hahakea Gulch

Cultural resource people should be independent and NOT those paid by developer.

Will more and better public beach access with ample public parking be available for the general public? This needs to be made specific, in writing and enforced.

Project expected to last 20 years?

Underwater sand ecosystem will be disturbed.

How will the impact of removal of the sand be monitored at the nourishment sites?

What happens when the clamshell brings up live coral and organisms?

What happens when Kona crab and other organisms that are not legal are brought up?

Will the operator call DLNR to inform them of an illegal take? Fines?

Who will monitor? Independent motitor should be on site at all times.

“Anoxic” scent is living organisms that have died and is decomposing.

There should be monitoring of marine environment of nourishment site and adjacent areas to document impact. No on site monitor, no work. DEIS is more concerned about project area above the shoreline. What about the marine environment in adjacent areas outside scope of work?

Where is the documentation of reef and coral outside and down current of the project? What and who will suffer the consequences of the sand if and when it covers existing marine life? DEIS does not include this. Why not?

The sand will eventually work its way back into the ocean. Since it will take 20 years, a monitoring an reporting system should be in place for 20 years to document the changes. Eg. Sand covering live coral and loss of reef habitat.

It appears the goal is to bring the beach back to 1988. Since the beach is an intergral part of the environment shouldn’t everything impacting the beach also be brought back to 1988? This should include all development mauka.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHO'OLAWE ISLAND RESERVE COMMISSION
LAND
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Paul Hanada
hawaiiansupaman@live.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Hanada,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

- The shoreline will be certified during the permitting efforts for the project.
- The proposed project is on State submerged land, makai of the shoreline.
- Sand will be placed on public property.
- Beach and marine sands are a public resource and cannot be bought or sold.
- Volume placed as part of the restoration effort will be determined by topographic surveys conducted each day in the area of active beach restoration work. Alternative volume calculations can be based on truck loads, excavator buckets, surveys of stockpiles, and barge volumes.
- Beaches are public trust lands. The OCCL is fulfilling its duties to conserve, and in this case restore, natural resources along the coastline.
- A restored natural beach benefits everyone who uses it, including residents.
- The proposed project is a beach restoration project and does not include planting after sand placement. State law restricts the planting and inducement of vegetation on submerged lands, including beaches.
- The proposed project does not include removal of sand, rather it is focused on addition of sand to restore eroded beach resources. The proposed design does not include excavation of sand at the Hāhākea Gulch but does propose filling at a slightly reduced elevation makai of the stream channel.
- The cultural and archaeological requirements for the proposed project are established by Federal and State laws. The proposed project has been designed to adhere to these laws.
- The proposed project does not currently include changes to public beach access or associated public parking.

- The proposed project is expected to require two to three months to complete. The lifespan of the proposed project is estimated at 20 years, not including potential impacts of random, large-scale coastal events. This lifecycle estimate is based on current erosion trends at the site.
- Environmental conditions and potential impacts for the project, including the marine areas, are discussed in length in Section 2.1.
- Sand removal impacts will not be monitored at the nourishment sites. Monitoring at the beach restoration sites will include water quality, beach dynamics, and nearshore reef ecosystem health.
- The proposed project is not anticipated to impact live coral. Extensive marine environmental surveys have been conducted in the sand recovery area. Some live organisms are expected to be impacted in the sand recovery area. This is discussed in detail in Section 2.1, Section 6, and in Section 8.
- Some live organisms are expected to be impacted in the sand recovery area. This is discussed in detail in Section 2.1, Section 6, and in Section 8.
- The proposed project will require permits from the DLNR prior to implementation. DLNR may establish requirements for monitoring and reporting any potential impacts from the sand recovery process.
- Currently, monitoring for the sand recovery effort of the proposed project is intended to ensure suitable sand characteristics. This monitoring effort will be a requirement for the construction contractor.
- Anoxic environments are characterized as having very little to no oxygen. Organisms living in these environments do not use oxygen in their respiration process and may find oxygen to be toxic when they are exposed to it. The scent associated with these environments is often referred to as an anoxic scent.
- Monitoring is discussed in Section 7.1. Monitoring plans for water quality and reef ecology have been established for the potential impact areas and include control stations outside of the proposed project area.
- Section 2 describes in detail the environment at and around the proposed project.
- Monitoring Programs are discussed in Section 7.1.
- The proposed project is a nature-based resource restoration project on State lands and does not include efforts to affect a change to mauka developments.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

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cconger@seaengineering.com

October 2, 2020

RE: HRS, Chapter 343 Draft Environmental Impact Statement for the Ka'anapali Beach Restoration and Berm Enhancement Project Located at Hanakaō'ō, Lahaina, Maui

Position:
STRONG OPPOSITION

The proposed Ka'anapali Beach Restoration and Berm Enhancement Project will be disastrous to the natural habitat, its cultural significance, and for the overall public enjoyment of this wahi pana (sacred site). This project serves to undermine public trust in a Conservation District, while it would further degrade the kai and 'āina continuum (beach) solely in the name of tourism and industry.

Mining 8.5 acres of sand, 150 feet offshore of Pu'u Keka'a, for a project with a 20 year lifespan is outrageous. My book, entitled *Keka'a: The Making and Saving of North Beach, West Maui (2014)*, reviews the social, political, and geographic devastations that occurred with the building of Ka'anapali, and the saving of the neighboring area Keka'a (North Beach) through public involvement. The community did not want another Ka'anapali at North Beach, and they stopped it.

Growing Ka'anapali today will face the same push back. Short sighted planning, as provided in the EIS, does not take into account the cultural significance of the place (and the iwi kūpuna that might be further disturbed with dredging that fronts Pu'u Keka'a), the natural wave cycle (with the project start dates Oct/Nov and part of December to mitigate against swell damage, while there are currently and forecasted north and south swells in the water in the first two weeks of October now), and the overall destruction to the natural and sealife habitat that will be anything but temporary (according to the Beaches & Biology fact sheet provided).

The case for sand replenishment is not new, nor does it have the community's best interests at heart. Pu'u Keka'a, and the surrounding area, is a highly significant place to Hawaiians then and

today. The perceived benefits of this project is short-lived, and the only logical longterm solution to sea-level rise is retreat of the hotels to higher ground.

No more destruction at Kaʻanapali and Puʻu Kekaʻa.

Mahalo,

Sydney L. Iaukea, Ph.D.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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M. KALEO MANUEL
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KAHO'OLAWE ISLAND RESERVE COMMISSION
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
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June 8, 2021

Sydney Iaukea, Ph.D.
PO Box 10373
Honolulu, Hi. 96816

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Dr. Iaukea,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. You are concerned over potential impacts to the natural habitat, cultural significance, and overall public enjoyment of the proposed project area.

   The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

   Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

   Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

   Beach restoration projects, such as the proposed project, can provide environmental and economic benefits to the region. Beaches provide erosion protection to the coastal plain and terrestrial lands, which by extension protects the remaining iwi kūpuna that may still lie *in situ,* mauka of the shoreline. Moreover, wider and healthier beaches dramatically improve access along the shoreline and recreational uses that depend on the sand beach.

2. You are concerned with the sand recovery effort located offshore of Puʻu Kekaʻa.

   Cultural resources and potential impacts are discussed in detail in the EIS, in Section 2 and Section 5. A Cultural Impact Assessment was completed as part of the environmental review process, which is attached to the EIS as Appendix A.

   To date, no archaeological sites have been discovered in or under the seafloor in the sand recovery area. The currents and wave action in the sand recovery area mobilize sand on a regular basis, which is why there is a very low fine grain content. Moreover, the general absence of an anoxic signature in the upper three feet also indicates high sediment mobility and oxygenation in the sand deposit. Detailed discussion is presented in the EIS and can be found in Sections 1.5.3, 2.1.8, 2.1.9, 2.2.7, and 2.2.8.

   Potential impacts to cultural and archaeological resources were identified as a critical design consideration for any potential beach restoration project in the area, to be avoided and minimized to the greatest extent possible. A key design parameter was avoiding contact with, and maximizing distance from, any potential or known cultural resources in the region, including Puʻu Kekaʻa. The project is designed to be no closer than 150 feet to the basalt headland, with the sand recovery area located between 150 feet to more than 800 feet from the promontory.

3. You have concerns that planning effort did not take into account cultural significance of the place, the natural wave cycle, and potential impacts to natural and sea life habitat, that you suggest will not be temporary.

   Discussion on recognition of the importance of local cultural resources and concerns, planning requirements based on local cultural resources and concerns, and EIS documentation and descriptions is presented above, in responses 1 and 2.

   Wave climate is discussed extensively in the EIS, with focused discussions and research data presented in Section 2.1.5. Though there are no seasons of the year when Hawaiʻi's wave climate has no activity, there are periods where wave energy is statistically lower. The months of October and November, for this coastline, are optimum, though clearly not without wave events.

   Marine biology and ecology are assessed, and potential impacts are thoroughly discussed in the EIS. This discussion includes critical documentation of each of the anticipated impacts. No analogous projects in the Hawaiʻi have resulted in impacts to the sand recovery areas or beaches that have been more than temporary.

   Protection and conservation of the reef ecosystem is a critical design parameter for the project. The decision to restore the beach to a previous condition, that of the 1988 beach, was central to the design. This focus leads the project toward the goals of resource restoration and ecosystem protection. Both the beach and the nearshore reef were coexisting in a viable regional ecosystem in 1988. It is important to note that restoring the beach to its condition previously, during a 2-to-3-month project, is not the same as causing 33 years of erosion during the course of the project construction. Erosion rates, after completion of the proposed beach restoration and berm

enhancement project, are not expected to change significantly during the project lifecycle. This estimate is based on current conditions and does not include the random influence of coastal hazards or extreme environmental changes. Since erosion rates are not expected to change greatly during the proposed project, it is unlikely that the restoration sand added during the project will suddenly erode, wholesale, and impact the adjacent coral colonies.

4. You propose retreat as the preferred alternative for the proposed project.

   Managed retreat was a topic of great discussion during the public meeting and public review process. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

   - Adaptation alternative is not adequately described or considered as an alternative.
   - Managed retreat planning is a needed mitigation measure for the proposed project.
   - Managed retreat is not evaluated properly as an alternative.
   - Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
   - Individual elements should have conceptual designs and documented retreat alternatives.
   - The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
   - Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
   - Some level of proactive managed retreat planning should be included, where possible.

   Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

   The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

Scott Werden
PO Box 345
Haiku, HI 96708

September 27, 2020

Aloha,

This letter is written in response to the Draft EIS published August 23, 2020, entitled “Ka’anapali Beach Restoration”.

I have five concerns with the Draft EIS, listed here, in no particular order:

1 Reef Protection

The EIS states in Section 2.1.11 that the coral reefs in the area have weathered past shoreline fluctuations with no ill effects and therefore should be largely unaffected by the proposed project. Previous fluctuations occurred on timescales of decades while this project is going to move the same amount of sand that was lost over 80 years in 75 days. I find it questionable that the coral can adjust in that short of a time scale. Furthermore, Hawai’i coral is already stressed by global warming leaving significantly bleached coral fields. The EIS does not address the confluence of negative factors such as these. We cannot afford to lose more coral. Whole ecosystems are dependent upon it.

2 Post-restoration Erosion

The EIS is assuming a 20-year lifetime for the restored sand. But this number is based on current (or recent) erosion rates and the beach profile will change significantly with the restoration; in particular, the gradient of the beach will be much steeper (see, e.g., Figure 0-7). As the EIS shows, steeper beaches tend to erode faster. I find the lifetime and erosion rates of the completed project to be questionable.

3 Restoration or Maintenance?

What happens in 20 years (or less, if the lifetime is inaccurate) when all the sand has eroded? Is this truly a one-time project or will KOA come back and want another restoration? If so, the proposed project is not really restoration but is on-going maintenance in which new sources of sand are going to have to be sought far into the future. And if the lifetime is significantly less, intermittent maintenance will blur into constant dredging. I would like to see assurances that we are not putting ourselves on a path of maintenance rather than a one-time project.

4 Erosion is a Natural Process

The EIS makes it clear that erosion of the Ka’anapali coastline is an on-going process and will not stop due to this project. It is temporary at best. The project is not being proposed to fix something that past policy or projects have broken; it is simply trying to stop nature from being nature. I question whether that is a wise approach for us to take. It is a slippery slope for the State of Hawai’i to compromise the environmental integrity of our islands to shore up hotels against natural forces that existed when the hotel was built, and which were poorly planned for by the property owners.

5. Who pays?

Although the question of who foots the bill for the Ka'anapali Beach Restoration project is not really a part of the EIS I will bring it up anyway. Even if the above objections are satisfactorily resolved, I am very much against the State of Hawai'i funding this, either in part or in whole. I doubt we would even be considering this project if it weren't for the hotels and KOA. It is their problem, they are the primary beneficiaries of the fix, so they should pay for it. This is no different from other public infrastructure projects in which the beneficiary pays (such as Maui County residents who want a water meter are forced to pay the County to run county water lines to the recipient's property)

Mahalo,

Scott Werden

Scott.werden@gmail.com

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June 8, 2021

Scott Werden
PO Box 345
Haiku, HI 96708

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Werden,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Reef Protection

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs

are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will build upon that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data sets are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

2. Post-restoration Erosion

As you have noted, the projected lifetime of the project is based on previous erosion rates. Though erosion rates have accelerated in the last 33 years, they are not currently changing rapidly. If sea-level rise rapidly accelerates, erosion rates may accelerate also. The proposed beach face profile

(1V:6H) is very close to the existing profile along most of the beach restoration area between Hanakaʻōʻō Beach Park and Hanakaʻōʻō Point. Beach conditions are discussed at length in Section 2.1.8 and the proposed restoration grades and elevations are discussed in Section 1.5.

3. Restoration or Maintenance

As you have noted, the projected lifetime of the project is based on previous erosion rates. Though erosion rates have accelerated in the last 33 years, they are not currently changing rapidly. If sea-level rise rapidly accelerates, erosion rates may accelerate also. The proposed beach face profile (1V:6H) is very close to the existing profile along most of the beach restoration area between Hanakaʻōʻō Beach Park and Hanakaʻōʻō Point. Beach conditions are discussed at length in Section 2.1.8 and the proposed restoration grades and elevations are discussed in Section 1.5.

The beach may be conserved with sand nourishment or managed retreat or a combination of approaches, but managed retreat is a long-term action that does not address chronic beach loss happing now. Managed retreat is a multidecadal process, requiring years of planning, funding, and implementation. As a synergistic mid-term step in a much longer adaptation process, the beach can be restored through sand nourishment utilizing sound engineering design and best practices to ensure protection of the nearshore marine environment.

Beach restoration is a specific type of environmental restoration, focused on restoring coastal sandy habitat that extends across the terrestrial/marine boundary. In broad terms, environmental restoration is focused on the renewal of a damaged resource, typically after the resource has been damaged due to human interactions. Modern sea level rise is a result of human-induced global atmospheric and ocean warming. Changes in storm severity have also been attributed to climate change. Moreover, these phenomena are identified as key drivers in accelerating erosion rates in Hawaiʻi and globally. As such, beach restoration is an important and viable environmental restoration technique to be deployed as part of the suite options needed to adapt to long-term changes in climate, the ocean, and our shorelines.

At this time, additional beach restoration efforts cannot be ruled out. Adaptation to sea-level rise in the coming decades and centuries will require a suite of actions, which may include additional beach restoration efforts.

4. Erosion is a Natural Process

You are correct, erosion is a natural process. Beach restoration is a mid-term solution that restores coastal resources while long-term sea-level rise adaptation solutions are investigated and implemented.

5. Who Funds the Project

We understand that times are financially difficult for many during the pandemic, and that beach nourishment is an interim, mid-term step, not a long-term solution for coastal management. But beaches are treasured resources in Hawaiʻi and all parties want to maintain them for as long as possible.

Funding for the project will be provided by both the State of Hawaiʻi Department of Land and Natural Resources (DLNR) and the Kāʻanapali Operations Association (KOA), with close to an even cost share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

KOA is an active member of the community and a faithful partner to the State in this endeavor. During typical years, Kā'anapali employs roughly 5,000 people, provides nearly $230 million in income, pays approximately $180 million in State and County taxes, not including income tax on the $230 million contributed in salaries. In addition, KOA donates more than $1 million to support local nonprofit organizations and provides more than $5 million in community service and support. KOA's participation and support in this project is in keeping with their ongoing commitment to the West Maui community.

Within the United States, beach nourishment projects have been documented as providing rewarding returns on investment at the federal, state, and local levels. Projects funded and completed in Florida have been analyzed in detail to explore the relationship between funding dollars and return on investment. The figure below, from a 2018 study shows the relationship between funding for nourishment projects and tax revenue generated by beach tourists in Florida. Beach restoration projects in Hawai'i are generally smaller-scale (length of coastline and volume of sand) than in Florida and elsewhere on continental coasts and are developed and implemented specifically to suite Hawaii's unique coastal environments. However, the general finding that beach nourishment projects provide a good return on investment appears to apply to Hawai'i scale projects, also. The State economy of Hawai'i, similar to Florida, has a strong relationship with the tourism sector.

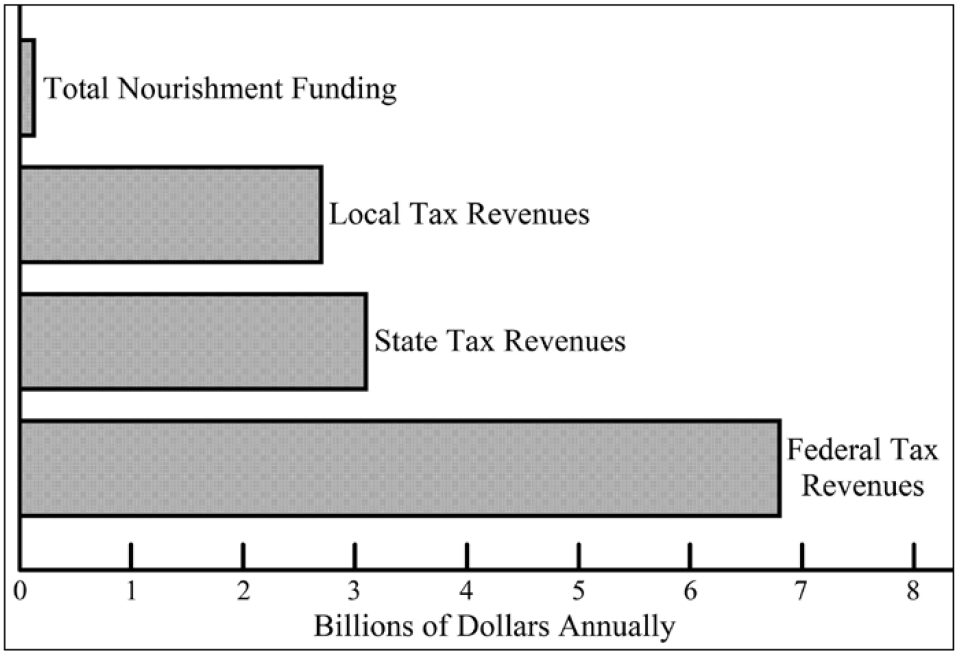

Figure 1. Comparison beach nourishment funding costs to beach tourist generated tax income generated annually in Florida (Houston, J.R. 2018. *The economic value of Florida's beaches.* Shore and Beach,Vol 86, No. 3., pp. 3 – 13.).

After a thorough review of the funding sources, costs, and benefits, we believe that restoration of the beach environment is not only a worthwhile endeavor in terms of conserving the public trust beach, shoreline access, and coastal ecosystem but is also an attractive and rewarding investment in and for the community.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

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STATE OF HAWAII

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DTS 202009280925HE

October 2, 2020

To: Suzanne Case, Chairperson
Department of Land and Natural Resources

From: Mary Alice Evans, Director
Office of Planning

Mary Alice Evans

Attention: Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Subject: Draft Environmental Impact Statement - Kaanapali Beach Restoration and Berm Enhancement; Seaward of TMKs: (2) 4-4-013: 007; (2) 4-4-013: 006; (2) 4-4-013: 008; (2) 4-4-013: 013; (2) 4-4-013: 002; (2) 4-4-013: 001; (2) 4-4-008: 022; (2) 4-4-008; 019; (2) 4-4-008: 001;(2) 4-4-008: 002; (2) 4-4-008: 003; and (2) 4-4-008: 005

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the Kaanapali Beach Restoration and Berm Enhancement, Island of Maui. The DEIS was sent to our office by memo dated August 20, 2020.

It is our understanding that the Department of Land and Natural Resources (DLNR), in conjunction with the Kaanapali Operations Association, Inc. are proposing a beach restoration project for a section of Kaanapali Beach between Hanakaoo Beach Park and Hanakaoo Point. The beach berm enhancement would raise the elevation of the dry beach by 3.5 feet, between Hanakaoo Point and Puu Kekaa. Approximately 75,000 cubic yards of sand will be needed to restore the Kaanapali beach site. The sand resources that will be used for this project is located offshore of Puu Kekaa.

The proposed project is intended to mitigate the impacts of coastal erosion, rising water levels, and increased storm severity. The project provides a nature-based adaptation solution that increases protection for the Kaanapali Resort community while restoring recreational resources and natural habitat. Adding beach quality sand to the north and south littoral cells is a key action for restoring the beach back to its former width and volume. It is anticipated that once complete, the beaches of Kaanapali will be more resilient to the effects of seasonal erosion and long-term climate change.

The Office of Planning (OP) has reviewed the DEIS and has the following comments to offer:

1. Citation of the Hawaii Administrative Rules – Environmental Review Process
   The rules for Hawaii's environmental review process, Hawaii Administrative Rules (HAR) Chapter 11-200.1, have been in effect since August 9, 2019. The Final Environmental Impact Statement (FEIS) should replace HAR Chapter 11-200 on the cover page with HAR Chapter 11-200.1.

2. Summary of Unresolved Issues
   The Executive Summary, page *v.* of the DEIS, states "permits and resources agency review have not been completed" as the unresolved issue of the proposed project. Pursuant to HAR § 11-2001.-24(q), the DEIS shall include a separate and distinct section that summarizes unresolved issues and contains either a discussion of how such issues will be resolved prior to commencement of the action, or what overriding reasons there are for proceeding without resolving the issue.

   OP suggests that the FEIS further examine what the unresolved issues of the proposed beach restoration and berm enhancement project are and discuss how such issues will be resolved prior to commencement of the proposed action.

3. Mitigation of Shoreline Erosion
   According to Section 1.4.4, page 12 of the DEIS, the document states that the upper limit on the project lifespan would be approximately 20 years. This is much less than 30 years, based on the beach condition of 1988, due to the accelerated rate of erosion along Kaanapali Beach. Furthermore, all placed sand, and even the existing sand, could be temporarily or permanently lost from the beach due to extreme natural events (such as storm surge, tsunami, and coastal inundation). The construction of permanent structures, such as groins to retain the placed sand along Kaanapali Beach, may limit the rate of coastal erosion.

   If within the scope of the project, OP suggests that the FEIS discuss other alternatives or conceptual plans that would help to maintain the beach after the completion of the proposed beach restoration and berm enhancement project.

4. Coastal Zone Management Area (CZMA) federal consistency
   It is noted that Section 3.2.3, page 140 of the DEIS acknowledges that the project is subject to a Coastal Zone Management Area (CZMA) federal consistency determination. Please have the Kaanapali Operations Association, and/or an authorized representative of DLNR, to contact OP regarding the policies and procedures governing CZMA federal consistency reviews.

5. Special Management Area
   Section 3.3.1, pages 149-150 of the DEIS states that portions of the proposed project staging areas, and ingress/egress routes will be located within the county designated special management area (SMA). OP recommends that the proposed agency consult with the County of Maui Planning Department as to whether a SMA Minor Permit is sufficient to cover the proposed staging areas and activities.

6. Shoreline Setback Variances
   As relevant to the information discussed in Section 3.3.2, page 150 of the DEIS, shoreline setback variances; except as provided in HRS § 205A-44(b), structures are prohibited in the shoreline area without a setback variance. DLNR should confirm with the Maui Planning Department as to whether a shoreline setback variance is required for the proposed project given that it is for beach restoration and berm enhancement without construction of any structures within the shoreline area.

If you have any questions regarding this comment letter, please contact Joshua Hekekia of our office at (808) 587-2845.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Mary Alice Evans, Director
Office of Planning, State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Evans,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Citation of the Hawaii Administrative Rules – Environmental Review Process
   The Kā'anapali Beach Restoration and Berm Enhancement project published its Environmental Impact Statement Public Notice under the pre-existing rules, HAR Chapter 11-200, prior to adoption of HAR 11-200.1. This project, like others that were started under the preceding rules, is subject to the rules under which it began its journey through the Hawai'i environmental review process.

2. Summary of Unresolved Issues
   The FEIS will include Unresolved Issues as stand-alone discussions. The discussions will include either a pathway to resolve the issue or the overriding reasons precluding resolution. They are presented in table format in the Executive Summary and in detail in Section 8 Unresolved Issues.

3. Mitigation of Shoreline Erosion
   OP has noted that the construction of permanent structures, such as groins, can be beneficial in the retention of sand on some sandy shorelines. OP has suggested that the FEIS discuss other alternatives or conceptual plans that would help maintain the beach after completion of the proposed beach restoration and berm enhancement project.

   Additional language has been added to Section 5, to discuss options that were assessed and eliminated at the early concept level. These options did not merit further review or discussion, based on design parameters:

- Offshore breakwaters
- Submerged breakwaters
- T-head groins
- Profile groins
- Groins
- Reef balls
- Artificial reefs
- Mangrove forest installation
- Living shorelines
- Biorock
- Sand grabbers
- Dune restoration

4. Coastal Zone Management Area (CZM) Federal Consistency
   A project representative will contact OP regarding the policies and procedures governing CZMA federal consistency review prior to and during the proposed project’s permit application process.

5. Special Management Area
   Project representatives have consulted with the County of Maui Planning Department on the expected permit requirements for the proposed project. In addition, the County of Maui Planning Department has submitted comments, providing written guidance on their regulatory process, suggestions for updates to the EIS documents, and recommendations for the proposed project design and construction.

6. Shoreline Setback Variances
   Project representatives have consulted with the County of Maui Planning Department on the expected permit requirements for the proposed project. In addition, the County of Maui Planning Department has submitted comments, providing written guidance on their regulatory process, suggestions for updates to the EIS documents, and recommendations for the proposed project design and construction.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State’s responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,
Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: J&LCahill <mountains145@outlook.com>

Date: Mon, Oct 5, 2020 at 3:56 PM

Subject: DEIS for Proposed Kaanapali Beach Restoration and Berm Enhancement project

To: <cconger@seaengineering.com>

As residents of the Kaanapali area, we would like to offer the following comments on this Draft Environmental Impact Statement (DEIS).

1. The DEIS is deficient in that it does not address the potential environmental impact on the north Kaanapali beach area of dredging sand from the proposed site off Puu Kekaa. This site is as close to the north beach as it is to the south beach. The DEIS does include the north beach in the discussion of the seasonal shifting of sand that affects both beaches.

2. The exhibit on page 65 shows a beach profile of the north beach but does not discuss this profile like it does all the profiles on the south beach. The information that was gathered of this profile should be discussed in the DEIS.

3. The DEIS does not address how the existing buildings and other human developments in Kaanapali have impacted the associated beaches. Have they contributed to beach erosion in any way? For example, have wind forces affected by large buildings and the removal of natural beach vegetation contributed to the beach erosion? If so, the DEIS should discuss an alternative to the proposed project that would address the existing human developments and how changes could help restore the beach. For example, a managed retreat from the shoreline over time is an alternative.

Mahalo,

James and Linda Cahill

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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HONOLULU, HAWAI'I 96809

June 8, 2021

James and Linda Cahill
mountains145@outlook.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. and Ms. Cahill,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. EIS does not include assessment of potential impacts to North Kā'anapali Beach from the sand recovery. The EIS does not include discussion of North Kā'anapali Beach seasonal dynamics.

The EIS addresses physical resources and activities, as well as anticipated impacts to each from the project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

The EIS discusses potential changes to bathymetry at the sand recovery site, and its relationship to the adjacent beaches in Sections 2.1.7 and 2.1.8, as well as Section 6. Because the sand recovery area is well outside of the depth of closure for the offshore sand field that extends from the proposed project area to North Kā'anapali Beach there is a very low probability of offshore sand recovery affecting beaches on either side of Pu'u Keka'a. In addition, analogous recovery sites and project specific modeling indicate that post-recovery changes to the regional sand field will be minimal and focused at the margins of the recovery site.

North Kā‘anapali Beach is outside of the proposed project area, thus was not discussed on the EIS, except as regional context.

2. A beach profile from North Kā‘anapali Beach is shown on page 65 but was not discussed in a similar manner as the profiles in the proposed project area.

Though profile and topographic data were collected at profile K13, they were not included in the discussion. The area north of Pu‘u Keka‘a is not part of the proposed project, so no design or evaluation work and discussion is presented for the area. Profiles at K13 were collected for context during the basis of design process and they corroborate the observed depth of closure for the offshore sand field.

3. The EIS does not address how existing structures and improvements mauka of Kā‘anapali Beach have impacted the adjacent beaches, through wind, erosion, or removal of vegetation. If so, the EIS should discussion an alternative to the proposed project that would address the existing human developments and how changes could help restore the beach. For example, a managed retreat from the shoreline over time is an alternative.

There is no evidence that the existing improvements on the abutting properties, which are well removed from coastal processes, impact the beach or coastal nearshore dynamics.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā‘anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat really means and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Retreat (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its

responsibility to conserve and, where feasible, restore beach resources and shoreline public access. We have done our best to provide a thorough discussion of the managed retreat alternative for Kā'anapali but are unable to provide a complete assessment of the feasibility of that alternative at this time through the HRS Chapter 343 environmental review process given the lack of broader State and County level guidance, policies, regulations, tools, or programs to facilitate managed retreat.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: alexa caskey <mauitropsicles@gmail.com>
Sent: Tuesday, October 6, 2020 9:54 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>
Subject: [EXTERNAL] Dredging in kaanapali

I’m emailing to express my opposition to the proposed dredging project in kaanapali. I went to college in Florida and witnessed a few dredging projects which are a very temporary solution at best but are extremely expensive, unsightly, and detrimental to wildlife and the ecosystem as a whole. Dredging is not a solution. Please reconsider.

Aloha

Alexa

Alexa

Owner of Maui Tropsicles

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Alexa Caskey
Maui Tropsicles
mauitropsicles@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Caskey,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project and believe dredging projects are expensive, unsightly, and detrimental to wildlife and the ecosystem as a whole.

The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Beach restoration projects, such as the proposed project, can provide environmental and economic benefits to the region. Beaches provide erosion protection to the coastal plain and terrestrial lands. Moreover, wider and healthier beaches dramatically improve access along the shoreline and recreational uses that depend on the sand beach.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,
Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Logan Lee <loganlee36@gmail.com>
Sent: Tuesday, October 6, 2020 9:47 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] EIS Ka'anapali Beach sand management project

Greetings brother Sam,

I am writing to you in regards to the EIS debacle project to pump sand from the reef onto the resort beaches at Ka'anapali.
Please understand the impact this will have on the already dying reef and impacting the cultural resources for fishing, access, and ocean species.

I beg you to consider approaching this with extreme caution and how the BIG picture of the future of the coastline will be affected.
Thew EIS draft does not even address the secondary cumulative impact of this brutal project.

We, the Aina warriors of Maui & all the Islands are respectfully and patiently waiting to have our elected leaders do what is pono.
Corporate interest in the tourist industry should NOT be dictating what is best for our beaches or how we thrive in balance within our islands.
There is always a more better option that will continue to protect our Reefs, Ocean, and coastlines.
with all due respect.

Aloha,

Logan Lee

Hawaiian subject & resident

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Logan Lee
loganlee36@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Lee,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

We agree that this proposed project should be approached with extreme caution. This led to the decision to start with an Environmental Impact Statement, summarizing the extensive research and design development efforts conducted so far. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. Our belief in the importance of all the local resources led to selection of a resource restoration-based design as the preferred alternative, but only after a thorough and critical review of viable alternatives.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Spencer Hyde <spencer_hyde3@hotmail.com>
Sent: Tuesday, October 6, 2020 10:00 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Comments RE: DEIS FOR PROPOSED KA'ANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT

Aloha Sam Lemmo,

I am a Maui resident writing to let you know that I am deeply concerned about the inadequacy of the DEIS for the proposed KÛ¯anapali Beach Restoration and Berm Enhancement Project.

This project is a temporary fix that will cost enormous sums of money. Ultimately, the hotels will have to move back from the shoreline anyway. Meanwhile, it will be an eyesore to the public by drastically altering the priceless ocean view.

The DEIS states, "The barge transport between onloading and offloading sites will be at slow speeds. These practices minimize the risks to whales, turtles, and seals in the water. On-land work will be conducted on the beach, which is part of the natural habitat for both turtles and seals in Hawai¯i. No work will be conducted within 50 yards of marine protected species that are identified in the nearshore waters or on the beach." "Minimze" risk to whales, turtles, and seals? No amount of risk to whales, turtles, and seals is acceptable. No work will be conducted "within 50 yards of marine protected species"? Will there be someone of the barge dedicated to looking out for seals and immediately stopping work upon sight? This is a fantasy. There is no possible scenario in which this project does not present a grave threat to our eco-system. The only safe way to save KÛ¯anapali beach is to move the hotels back. There is no other option.

Mahalo,

Spencer Hyde

4320 E. Waiola Loop

Kō¯hei, HI 96753

From: Spencer Hyde <spencer_hyde3@hotmail.com>
Sent: Tuesday, October 6, 2020 4:51:23 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Re: Comments RE: DEIS FOR PROPOSED KA'ANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT

Aloha Sam,

To follow up on my earlier comment, I would like to add that I've read and adopt as my own the comments made by Tiare Lawrence with respect to this DEIS.

Mahalo,

Spencer Hyde

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Spencer Hyde
spencer_hyde3@hotmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Hyde,

Thank you for your emails regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Ms. Tiare Lawrence's emailed comments have been included with your email comments, per your request. This response covers both Ms. Lawrence's and your comments.

Potential impacts to the local paddling community

Outrigger paddling was a principal design consideration in development of the project's scope and work plan. The project has been designed to minimize construction time and transit time fronting the three canoe clubs at Hanaka'ō'ō Beach Park. The southern sand offloading site's location was chosen due to both physical and ecological environmental considerations. Operations at the southern sand offloading site should be limited to a total duration of less than 50 total days.

Unfortunately, with year-round paddling for regatta, distance, and one-man season, there is no ideal time to schedule the proposed project. We are doing all we can to reduce the potential for interaction with the paddling community including longer workdays with seven day work weeks, which should shorten project duration.

Additionally, there will always be an open channel that can be transited by paddlers. The channel will be located between the sand recovery area and shoreline, so that paddlers do not have to venture farther from shore to transit up and down the coastline. Open lines of communication between the marine contractors and paddling community, with weekly updates on schedule and operations, should also minimize the inconvenience.

Comment letters were received from local padders during the EISPN public review process. Responses were included in the DEIS. In addition, email correspondence with representatives from the local clubs was part of the DEIS public outreach process; however, at this time the clubs have not followed up to schedule a meeting. Beach and water access impacts are discussed at length in the EIS, in Section 2. We are confident that we can accommodate the paddling community during project construction.

Potential impacts to the ecosystem and Best Management Practices

The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

The State and Federal resource and regulatory agencies, working with the local marine contractor community, have developed clear and achievable best management practices through the years. These practices are included in the EIS, in Section 7.2 During Construction Mitigation and Monitoring. Many of the practices focusing on threatened and protected species come directly from the standards provided by the National Marine Fisheries Service Pacific Island Regional Office and the US Fish and Wildlife Service. These practices have been the standard for Hawaiian marine construction operations for many years and have been successfully implemented across the State.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Ku'umomimakamae Haia Naho'oikaika <mominahooikaika86@gmail.com>
Sent: Tuesday, October 6, 2020 10:02 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Oppose Ka’anapali sand pumping!

Aloha,

I oppose the Ka’anapali sand pumping project. Cultural resources including surfing, diving, paddling, and other practices that may be impacted by the project.

Mahalo.

Sent from my iPhone

DAVID Y. IGE
GOVERNOR OF HAWAIʻI

SUZANNE D. CASE
CHAIRPERSON
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June 8, 2021

Kuʻumomimakamae Haia Nakoʻoikaika
mominahooikaika86@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kāʻanapali Beach Restoration and Berm Enhancement Project

Dear Kuʻumomimakamae Haia Nakoʻoikaika,

Thank you for your email regarding the Kāʻanapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

The EIS addresses recreational and cultural resources, including but not limited to surfing, diving, paddling, and other practices. Assessment included both existing resources and potential impacts. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Paul Gallagher <paulgallagherphl@gmail.com>
Sent: Tuesday, October 6, 2020 9:36 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>
Subject: [EXTERNAL] Kaanapali Beach Sand Pumping

Aloha,

It has come to my attention that the hotel industry is looking to move forward with further desecration of the shore in Kaanapali at the hands of hotel operators?

When will the sacrifice to our oceans stop?

In addition the the environmental hazard, danger to the fragile marine life and public safety, the cultural impacts have not been properly addressed.

Time is running out to save our oceans, culture, Aina.

Is it worth it ?

Will kids in your family even have a habitable planet to live?

Stop this massacre now!

Mahalo for your time.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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KAHO'OLAWE ISLAND RESERVE COMMISSION
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Paul Gallagher
paulgallagherphl@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Gallagher,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

The EIS addresses marine life, public safety, and cultural resources. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,
Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Chanda Min <cmin96712@gmail.com>
Sent: Tuesday, October 6, 2020 10:14 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>
Subject: [EXTERNAL] Kaanapali sand restoration

Aloha,

Hope this email finds you well and in good conscience. I am writing to oppose the sand restoration project on the shores of Kaanapali. It's brought to my attention that there are numerous faults to this proposed project including:

-the EIS does not address secondary or cumulative impacts on environment

-there is NO post-construction public safety impacts identified.

-cultural resources will be impacted by project including diving, fishing, surfing, paddling to make a few.

-lame disclosures of project's impact on cultural resources and environment.

-impacts on live coral and fish not disclosed.

We especially now need to wake up and realize monetary gain is not the way of the future if we strive for a prosperous and successful future. The hotels and resorts that have lined the coastlines of Maui for decades need to take better accountability and retreat their structures and find a better solution.

Mahalo,

Chanda Min

P.s. We should have learned from Waikiki but we continue to propose bogus solutions. I think we can do better.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Chanda Min
cmin96712@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kāʻanapali Beach Restoration and Berm Enhancement Project

Dear Ms. Min,

Thank you for your email regarding the Kāʻanapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

1. Secondary and Cumulative Impacts

We understand and value the public concern over potential Secondary and Cumulative impacts that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential secondary impacts to emergency services, resulting from changes to beach conditions and nearshore hazards.
- Potential secondary impacts by masking true rates of shoreline change, thereby affecting the real estate markets and coastal hazard assessments.
- Potential secondary environmental impacts resulting from recovery of sand in the offshore sand field.
- Potential cumulative impacts associated with a proposed beach restoration project five miles to the north.
- Potential cumulative impacts to cultural resources, based on potential to impact iwi kūpuna and possible contentious reaction to the project due to proximity to Puʻu Kekaʻa.

Based on community feedback, we have conducted additional site investigations and produced an addendum to the marine environmental report, which can be found in Appendix C of the FEIS. This addendum improves the characterization of the nearshore marine environment, allowing for a more robust assessment of potential direct, secondary, and cumulative impacts to the marine environment.

To date, there are few beach restoration projects in Hawai‘i that have documented post-construction marine ecosystem health. Post-construction monitoring proposed for this project can generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands. These post-construction monitoring efforts have been updated based on community and agency feedback, and are detailed in Section 7.1 Monitoring Programs.

Additional discussion and analysis have been added to Section 2.2.7 Cultural Resources for iwi kūpuna, Pu‘u Keka‘a, fishing, surfing, diving, paddling, and other practices that may be impacted.

Section 2.2.5 Coastal and Nearshore Recreation has been revised to include freediving, gathering, and worship, and Section 2.2.6 Public Health and Safety has been updated to more thoroughly discuss potential impacts to the beach and nearshore, including sand compaction, nearshore bathymetry, and waves.

Section 8 Unresolved Issues has been updated to include potential impacts to cultural resources, ocean recreation, potential environmental concerns, and public safety.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS. This section has been revised to address comments received during the public comment period, including discussion during the public meeting.

2. Post-construction public safety impacts are not identified or mitigated

Public safety is discussed in several sections as it pertains to existing conditions and potential short-term and long-term impacts from the proposed project. These discussions are presented in the EIS, Sections 2.2.4 Beach Access, 2.2.5 Coastal and Nearshore Recreation, and 2.2.6 Public Health and Safety.

3. The Cultural Impact Assessment took an overly narrow view on culture and failed to engage West Maui communities

We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Cultural Impact Assessment (CIA) engagement of the community was not thorough.
- The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
- "The cultural resource people should be independent and NOT those paid by the developer."
- Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
- Activities near Pu‘u Keka‘a, which is a leina a ka‘uhane, may have a cultural impact.
- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Pu‘u Keka‘a and Keka‘a Landing.

- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui Lana'i Island Burial Council. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project. Based on this thorough process and its results, as presented in the FEIS, no changes are recommended to CIA.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety,
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

Section 7.2 During Construction Mitigation and Monitoring contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

4. Impacts of sedimentation on live corals and on essential fish habitat inadequately disclosed

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring

will coordinate with and contribute to that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

5. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented.

Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Lola M <lmartinez87@gmail.com>
Sent: Tuesday, October 6, 2020 10:38 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Opposing sand pumping in KŪanapali - please help prevent any more sand pumping

Aloha and thank you for receiving my email,

I am writing in opposition to any kind of sand pumping - specifically in the new proposed project regarding KŪanapali Beach. Restoration literally means "the action of returning something to a former owner, place, or condition" so efforts should be made to minimize further damage to the natural evolution of our island home. Frankly, removal of hotels that have been empty for months and looking at the extreme decrease in tourist volume and how we can diversify resources & employment econony that's to come should be where environmental engineering efforts need to be made.

Many thanks for your efforts, support, leadership, and partnership with community members and voters. I hope to be a part of any contact list that you and your office are putting together to keep residents informed.

Many thanks,

Lorena

Member of Lahaina Canoe Club

Resident of Maui since March 2018

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Lola Martinez
Member of Lahaina Canoe Club
lmartinez87@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Martinez,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Environmental Restoration
We have reviewed your definition of Restoration and have added a definition for Environmental Restoration to the EIS in Section 10.

Environmental Restoration: Defined in 1987 by John J. Berger as "A process in which a damaged resource is renewed. Biologically. Structurally. Functionally."

Minimizing Impacts
The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Alternatives to the Proposed Project
Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea

level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā‘anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā‘anapali and how to accomplish it.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: archer357 <archer357@gmail.com>
Sent: Tuesday, October 6, 2020 10:40 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] I oppose

I am a long time resident of Maui County and I oppose bringing off shore sand to temporarily fix the erosion along Ka'anapali Beach. Please put the needs people of Hawai'i and their Aina above the wants of the corporations that would benefit the most from this project. The same people who voted for you rely on you to make the decisions for the people.

Aloha,

James Christopher Archer

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

James Christopher Archer
archer357@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Archer,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS.

We understand that you are opposed to the proposed project.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Francine Aarona <mopsaarona@gmail.com>
Sent: Tuesday, October 6, 2020 2:21 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] PŪ‘ā versus KŪ‘anapali Beach Restoration project

Aloha Sam,

Hoping all is well with you. As you can see the shore line changes drastically in front of my house. The rubble of rocks was not cleared but covered in sand during this last swell. Now you see it, now you don’t.

I’m just using this as an example regarding the Ka’anapali beach restoration. My tutu would say the ocean dictates to you, you don’t dictate to it. It is more powerful then you are. You respect it and it will respect you. I have lived by those rules and Kanaloa has been gracious to our Ohana.

I am in opposition to this project. Be patient and if you’re good the sand will return. I think the last method that Waikiki beach did worked,with the sand bag method? What do I know.

Still waiting on the state Archieologist. Take care and be safe.

Mrs. Aarona (Aunty Mopsy)

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Francine Aarona
mopsaarona@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Aarona,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS.

We understand that you are opposed to the proposed project.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

West Maui Preservation Association
P. O. Box 11150
Lahaina, HI 96761

October 5, 2020

VIA EMAIL

To: Governor David Ige
Executive Chambers, State Capitol
415 South Beretania Street
Honolulu, Hawai‘i 96813
via: https://governor.hawaii.gov/contact-us/contact-the-governor

Cc: Sam Lemmo, Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
1151 Punchbowl Street
Honolulu, Hawai‘i 96813
sam.j.lemmo@hawaii.gov

Christopher Conger
Sea Engineering Inc.
Makai Research Pier
41-305 Kalanianaole Highway
Waimānalo, Hawai‘i 96795
cconger@seaengineering.com

Subject: Comments of the West Maui Preservation Association on the Department of Land and Natural Resources' Kā‘anapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement, Lahaina, Maui, noticed August 23, 2020

To whom it may concern,

Thank you for soliciting comments on the Department of Land and Natural Resources' (DLNR) Kā‘anapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement, Lahaina, Maui, concerning areas makai of TMK Nos. (2) 4-4-013:007; (2)4-4-013:006; (2) 4-4-013:008; (2) 4-4-013:013; (2) 4-4-013:002; (2) 4-4-013:001; (2) 4-4-008: 022; (2) 4-4-008;019; (2) 4-4-008:001;(2) 4-4-008:002; (2) 4-4-008:003; (2) 4-4-008:005; (2) 4-4-008, noticed August 23, 2020 (project). We reviewed the draft EIS and attended the September 24, 2020 public scoping meeting.

Please consider the following comments from the West Maui Preservation Association (WMPA), a Hawai‘i nonprofit organization based that is dedicated to preserving, protecting and restoring the natural and cultural environment of West Maui.

1. *Managed retreat planning is a needed mitigation measure for the proposed project.*

The draft environmental impact statement (EIS or DEIS) indicates that managed retreat processes will be ongoing and the project is proposed for the "meantime." DEIS at ii ("Managed retreat is a multidecadal process. In the meantime, the beach can be maintained through sand

nourishment utilizing best practices to ensure protection of the nearshore marine environment."). However, requiring benefitted landowners to take steps towards managed retreat or managed retreat planning are not proposed as a mitigation measure.

Without requiring proactive steps towards either moving structures inland or removing them, the project may have the adverse effect of further coastal development in the erosion-prone area.[1] Current updates drafted for the West Maui Community Plan specify Kā'anapali golf course lands are "to remain in as Park/Open Space designation until needed for shoreline businesses and residences to retreat as sea level rises. Many of the existing uses along the shoreline are within the sea-level rise exposure area and will likely need to move upland in the future."[2]

Beaches may need to be renourished as often as every two to ten years.[3] These temporary fixes also tend to provide a false sense of security to coastal developers and investors. "Beach nourishment may mask or reduce the apparent impact of coastal hazards without changing the natural processes driving them."[4]

Researchers describe a positive feedback between coastal development and beach nourishment in which the latter has the "unintended consequence" of encouraging especially high-end development in places vulnerable to sea level rise.[5] "Coastal communities are crafting adaptation strategies to confront sea level rise (SLR). Unfortunately, cost–benefit analyses that assess SLR risks often fail to capture important political and social feedbacks. For example, adaptation measures (e.g., beach nourishment) can trigger greater development, undermining the value of adaptation infrastructure, incentivizing development, and increasing risks."[6]

The positive feedback between nourishment and development compounds coastal risk in areas like Kā'anapali, in which high-value properties already proliferate. That is, with more coastal development, the need to maintain the wide beach will also increase.

Rather than planning to remove coastal structures in Kā'anapali, coastal developments double down on continual renourishment that has additional, significant environmental impacts, including those discussed *infra* Parts 7-8. The environmental impacts of merely "climate proofing" certain infrastructure, such as the Kā'anapali boardwalk and mauka resorts discussed in the draft EIS, without further mitigation, are among those that "exacerbate the negative consequences of positive feedbacks in coastal real estate markets[.]"[7] WMPA is informed that even now the Kā'anapali Beach Hotel is planning to expand its bar and restaurant on the makai

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[1] Carlos Waters, "The problem with beach nourishment," *Vox.com* (Dec. 10, 2018) *available at*: https://www.vox.com/2018/12/10/18125945/beach-erosion-nourishment-coastal-engineering-rebuilding-beaches.

[2] Draft West Maui Community Plan, at 105 (Jun. 2020) *available at*: https://wearemaui.konveio.com/draft-west-maui-community-plan-june-2020. The currently applicable West Maui Community Plan (1996) also designates these lands as "open space."

[3] Committee on Beach Nourishment and Protection. Marine Board, Commission on Engineering and Technical Systems, National Research Council. Beach Nourishment and Protection. National Academy Press. Washington, D.C. 1995.

[4] Armstrong et. al, "Indications of a positive feedback between coastal development and beach nourishment," 4 *Earth's Future* 626, 633 (2016) *available at*: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2016EF000425 (citations omitted).

[5] Armstrong et. al, at 626.

[6] S. Woodruff, "Fighting the inevitable: infrastructure investment and coastal community adaptation to sea level rise," 34 *System Dynamics Review* 48 (2018) .

[7] A.G. Keeler et. al, "Responding to Sea Level Rise: Does Short-Term Risk Reduction Inhibit Successful Long-Term Adaptation?" 6 *Earth's Future* 618 (2018) *available at*: https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1002/2018EF000828.

side of its existing buildings. The project is likely encouraging such further construction and the increased environmental impacts that shoreline development entails.

The PACIOOS viewer has a soils map that shows "dune and marine sand" extend several hundred feet inland from the shore at Hanakaʻōʻō and that "dune" extending considerably further. While WMPA has been told that the data on which the PACIOOS maps are based is "old," these maps indicate considerable inland sand reserves that would allow beach replenishment for many years. Additionally, as pointed out by Dr. Mark Deakos at the September 24, 2020 public meeting, the area behind the resorts is largely open space used as a golf course. As discussed further *infra*, the "adaptation" and "no action" alternatives should better consider these sand reserves and potential for managed retreat.

2. Draft EIS does not address secondary and cumulative impacts of the project.

In asserting an absence of cumulative or secondary impacts, the draft EIS characterizes the proposed project as one that "only intends to return the beach to a previous condition. There will be no changes in land use that would encourage further development." DEIS at 131. This assertion fails to address impacts on real estate markets; that renourishment depends on reinvestment in nourishment projects; and that these projects may fail to sober development along the shoreline discussed *supra* Part 1.

Researchers have documented a potential masking impact of beach nourishment on information on the rate of shoreline change. "Cumulative sediment input from decades of beach-nourishment projects may have sufficiently altered shoreline position to mask 'true' rates of shoreline change."[8] As a consequence, long-term rates of shoreline change typically used to assess coastal hazards may be systematically underestimated. Such impacts on our knowledge-base of shoreline change and sea level rise should be investigated and at minimum, fully disclosed.

Additionally, the draft EIS does not address cumulative and collective impacts on nearshore resources and conditions consequent to other West Maui beach nourishment projects, including at Kahana Bay, five miles north of Kāʻanapali bay. This despite that the Kahana Bay beach renourishment project is also undergoing contemporaneous environmental review.[9]

3. "Adaptation" alternative is not adequately described or considered as an alternative.

The draft EIS dismissing managed retreat, or "adaptation" as a preferred alternative. *See* Alternative 3 5.3.3. Under this alternative, "adaptation" would mean "preparing shorefront lands along Kāʻanapali Beach for inundation and land loss while allowing the shoreline to naturally migrate landward." Adaptation is presumed to require relocation of infrastructure to a more mauka location on "open land" and is not feasible because "[i]n Kāʻanapali, inland areas have been utilized for existing infrastructure and development. As a result, any retreat or relocation requires removal of the current infrastructure and development to repurpose the land." DEIS at 170.

It is unclear why planning to relocate infrastructure, repurposing land, or removing current beachfront structures to locations outside of Kāʻanapali are not considered. Adaptation to

[8] S. Armstrong & E. Lazarus, "Masked shoreline erosion at large spatial scales as a collective effort of beach nourishment," 7 *Earth's Future* 74 (2019)

[9] *See* DLNR, Kahana Bay Erosion Mitigation, Second EISPN, noticed Jul. 23, 2019.

sea level rise does not only mean literally moving existing buildings inland in a direct line from their existing location. "[A]daptation is a socio-political process that mediates how individuals and collectives deal with multiple and concurrent environmental and social changes."[10] The "adaptation" alternative should consider the true social and environmental cost of failing to consider managed retreat as a planned removal of structures that were built too close to a dynamic ocean. Such a consideration would not be based on the postulate that West Maui must continually reinvest in tourist infrastructures for Kā'anapali, but should allow for other possibilities. The draft EIS' overly narrow consideration of "adaptation" should be reconsidered.[11]

Maui and especially West Maui already suffers from an outsized dependence on tourism, as can be shown in a variety of measures. For instance, the draft EIS describes West Maui as having a "high transient population . . . that can at times outnumber the permanent residents." DEIS at 127. The Maui Island Plan Policy 4.2.3.a states: "Promote a desirable island population by striving to not exceed an island-wide visitor population of roughly 33 percent of the resident population." Maui already well exceeds that number with an average of 64,480 daily visitors in 2018 and a 2018 resident population for Maui Island of 154,834. Despite already exceeding the visitor to resident ratio, the draft EIS concludes that the project "is anticipated to have a negligible impact on transient or permanent population characteristics." DEIS at 127. Building what is essentially a tourist attraction will have short and long term impacts on West Maui by increasing congestion and setting up a cycle of further investment in tourist infrastructure. An alternative in "adaptation" should be considered as a means of avoiding these further secondary and cumulative impacts.

4. *Economic impacts on subsistence fishers and gatherers will be substantial even if of a short duration.*

Although project construction is expected to last approximately 63-75 days and the changes to the nearshore environment and depicted as short-lived, the disruption in shoreline ecosystems and the limu and fish that are gathered from those ecosystems may have significant impacts on subsistence gatherers. This impact is exacerbated by the record-high unemployment currently being experienced by Maui residents. As per HRS §343-2, economic effects to be considered as part of the environment and humanity's surroundings. Subsistence living is no less an "economy" than waged labor.

5. *Post-construction public safety impacts are not identified or mitigated.*

Draft EIS public health considerations are limited to the preventing people from getting hurt during the sand mining process. DEIS at 200. However, beach nourishment comes with a significant increased risk of accidents and injuries to water users. Beach nourishment and accompanying morphological changes in the beach may be contributing to an increase in serious aquatic accidents and drownings.[12] Offshore sand mining and beach replenishment have been

[10] S. Eriksen et. al, "Reframing adaptation: The political nature of climate change," 35 *Global Envt'l Change* 523 (2015).
[11] S. Moser & J. Ekstrom, "A framework to diagnose barriers to climate change adaptation," 107 (51) *Proc. Nat'l Acad. Sciences* 22026 (2010).
[12] Fletemeyer, J. et. al, "The Impact of Sand Nourishment on Beach Safety," 34 *J. Coastal Research* 1 (2018).

linked to increases in spinal injuries consequent to ocean recreational users diving or falling into areas that were previously deeper or due to steeper waves caused by changed seafloor depths. Two surfers were paralyzed after the Waikīkī beach replenishment project and sued the State.[13] Shifting sands caused by offshore dredging could result in new shallow sections and increase the likelihood of accidents.

The project area is already well known for having significant surf. The composition of marine life here are shaped by the **"**concussive forces associated with breaking surf[.]" DEIS Appx. B (PDF) 357. In concluding the project "will not be materially detrimental to the public health, safety, and welfare," the DEIS states:

> Kāʻanapali Beach is presently one of the most dangerous beaches in Hawaiʻi. The shorebreak can cause injuries that range from non-life-threatening scrapes and bruises, broken limbs, soft tissue tears, and joint dislocations to life-threatening spinal and brain injuries and drowning. There is no lifeguard tower at Puʻu Kekaʻa, and the nearest lifeguard tower is nearly 1.5 miles to the south at Hanakaʻōʻō Beach Park.
>
> The proposed nourished beach profile, including the beach face slope and the beach toe feature, will retain the pre-construction shape; the beach face will simply be translated further offshore. Thus, the project is not anticipated to change the hazard from breaking waves on the shoreline

DEIS at 139. The area is already dangerous and "[f]ollowing sand placement, there will be a period of beach equilibration, during which the beach profile and offshore water depths can be expected to vary as the beach adjusts to the prevailing wave conditions and the beach assumes its stable configuration." DEIS at 74. While acknowledging that the project will change the ocean floor and beach, the draft EIS deflects analysis or mitigation for these changes by stating "strong Kona storms, hurricanes, tsunamis, extreme water level changes, and other oceanographic and atmospheric events" could "produce large-scale changes in the beach[.]" DEIS at 74. These large scale changes also include removing all of the nourished beach material. *Id.*

The draft EIS does not adequately consider changed rip currents and the formation of sand bars, even though this was raised by a public commentor concerned with impacts on the paddling community. *See* Response to Tramontano, DEIS at PDF 395. Yet, the problem is not so much with the difficulty of predicting the location of public safety hazards, as it is with the lack of mitigation for them.

Whether and how mitigation for public safety may be accomplished is unclear. The draft EIS includes a table that lists mitigation for "[w]ave reflection at Hanakaʻōʻō Point during first season post-placement. Beach profile adjustments immediately after placement" and "[i]ncreased beach berm height in the [Kāʻanapali Littoral Cell]." DEIS at vi. Yet, there are only short and mid-term mitigations consisting in: "ensure regular notification of beach users during adjustments" and the first seasons of winter and summer swell; and a recommendation for signage along the beach." DEIS at vi. It is unclear who is going to "ensure" these notifications unless there are plans for DOCARE officers to be present regularly at these times. In any case, these mitigation measures are not listed in the "Mitigation" section of the DEIS under either Section 7.1.3.3.17 "Health and Safety Plan" or the post-construction mitigation measures, which solely consist in beach profile monitoring to be undertaken by the consultant. DEIS at 207-08.

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[13] Lisa Kubota, "New Lawsuits Claim Waikīkī Sand Project Caused Severe Injuries," *Hawaiinewsnow.com* (Nov. 24, 2014) *available at*: http://www.hawaiinewsnow.com/story/27473796/new-lawsuits-claim-waikiki-sand-project-caused-severe-injuries/

Actions that might mitigate dangers of potential public safety hazards, include investigating impacts of different means of adding sand; monitoring for the creation of new sandbars and rip currents; and installing a lifeguard tower and more lifeguards for the project areas at Puʻu Kekaʻa and Hanakaʻōʻō and nearby areas.

6. *The project will exacerbate ocean user conflicts that are already under-regulated by the Department of Land and Natural Resources*

The project is proposed for the already congested area of Kāʻanapali bay and the West Maui Ocean Recreation Management Area (West Maui ORMA). Hawaii Administrative Rules (HAR) § 13-256-106. Kāʻanapali commercial thrill craft areas are also within the West Maui ORMA. HAR §13-256-109(a). Although there are limited on commercial use permits (CUPs) for Kāʻanapali operators, thrillcraft CUPs may consist in eighteen rental units and three safety units. HAR §13-256-109(b). The Kāʻanapali commercial water sledding area, for which a maximum of two CUPs may be issued, also lies off of Kāʻanapali beach. HAR § 13-256-111. These commercial operators use the same and nearby areas as fishers, spearfishers, divers, swimmers, surfers, surfing schools, and paddlers. WMPA has specifically raised issues with the lack of environmental assessment for these ocean areas.

In 2012, the Hawaiʻi legislature found increased recreational and commercial activities in Hawaii's nearshore waters had led to safety concerns and, in some cases, tragic results and specifically that Kāʻanapali beach required more buoys to more clearly delineate areas reserved for differing uses, especially swimming, and to thereby ensure greater safety. Act 194 §§1-2, 2012 Haw. Sess. Laws. Currently, there are no buoys marking swimming lanes at Kāʻanapali beach, only boat mooring floats/ balls. In 2013, the advisory group assembled pursuant to Act 194 submitted a report to the legislature that recognized adverse impacts of thrillcraft operations on fish schools in Kāʻanapali beach and ocean water areas. *Id.* at 274. Kāʻanapali beach and nearshore areas are frequently crowded with various thrillcraft jetskis, wave runners, catamarans, and other commercial activities.

Shoreline commercial uses already crowd Kāʻanapali beach through extensive use of the limited beach space by the resorts to rent out cabanas, chairs, umbrellas, surfboard, sunset cruises, etc. These commercial activities are unregulated, are not properly managed, and cause user conflicts. The many area businesses also take up public parking that West Maui communities fought for. The environmental assessment does not address the project's addition of land-based activity to an already improperly managed area.

The project proposes to add further shoreline traffic in this area and has not sufficiently disclosed the means of managing these different uses in a safe manner.

7. *The Cultural Impact Assessment took an overly narrow view on culture and failed to engage West Maui communities.*

The draft EIS takes a narrow view of cultural resources, limiting them to the identity of the area around Puʻu Kekaʻa as a leina a ka uhane, or a leaping place for departed souls and the Hanakaʻōʻō grinding stones. Cultural resources include surfing, diving, paddling, and other practices that may be impacted by the project. Based on the inappropriately narrow perspective,

the draft EIS asserts, "[f]indings of the CIA indicate that there does not appear to be any known traditional Hawaiian cultural practices that would be adversely affected by the proposed project. . . ." DEIS at 123. Fish, benthic community members, surf breaks, and currents are improperly omitted from discussion of cultural impacts.

CIA consultation was limited to Wayne Hedani of the Kāʻanapali Operations Association and no Hawaiian cultural practitioners. Representations that Ekolu Lindsey "acknowledged" receipt of a consultation email do not accurately characterize that the acknowledgement email is an automated Customer Service response from info@Olukai.com. DEIS Appx. A (PDF 300). In light of the pallid response that met with their consultation methods, it is doubtful that mitigation consisting in "[e]nsur[ing] open communication during beach renourishment operations" will be a fruitful means of mitigating cultural impacts. DEIS at viii.

Potential impacts to ecological resources, including sedimentation of nearshore reefs and destroying benthic communities that are food for fish resources, should be further assessed as impacts to cultural resources. The same is true for impacts to recreational resources, including surf breaks.

The draft EIS recognizes surf breaks located on the reef offshore Hanakaʻōʻō Point and the north end of Kāʻanapali Beach is also used as a bodysurfing, bodyboarding, and skimming site. DEIS at 113. Additionally, there is a "short-lived" winter swell surf spot that may form along the outer edge of the sandbar with waves extending as far south as the Kāʻanapali Beach Hotel that is in the project area. DEIS at 113. The draft EIS states there is "the potential for the proposed project to initially have some impact on surfing at Hanakaʻōʻō Point." DEIS at 117. Dismissal of the significance of this potential impact is restricted to historic and topographic surveys of sand accretion and without further mention of potential impacts on Kāʻanapali beach surf break. In any case, because surfing is a native Hawaiian traditional and customary practice, potential impacts should be assessed as such.

As was apparent at the September 24, 2020 public hearing, West Maui communities, including Kānaka Maoli communities are very engaged and informed. The Cultural Impact Assessment (CIA) should be revised to include important information from these communities. This information can be used to redevelop mitigation and project plans and assessments of their impacts.

8. Cumulative impacts on cultural resources and practices are inconsistently documented.

The draft EIS represents that its supporting CIA "concluded that though the construction work in this region is not anticipated to impact either cultural practices or artifacts, there may still be a contentious response from individuals within the Native Hawaiian community." DEIS at 123. This statement appears to indicate that any "contentious" Native Hawaiian community responses are not based on anticipated impacts to either cultural practices or artifacts.

The draft EIS must review cumulative impacts, which include "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." HAR §11-200-2. Past actions and impacts are included in the cumulative impacts the draft EIS must disclose.

The project will include work on and around Puʻu Kekaʻa. The CIA concluded, in part: "The presence of resort hotels and other tourism facilities on and around Puʻu Kekaʻa violates a

sacred Hawaiian cultural place" and "Hundreds, if not thousands, of *iwi kupuna* (ancestral remains) have been disturbed or displaced by resort construction on and around Puʻu Kekaʻa over the last 55 years. The general disrespect accorded to these burials during the modern era is considered an act of profound desecration by many members of the Hawaiian community." DEIS Appx. A at 35.

The draft EIS cannot both conclude that there are no "anticipated" impacts to cultural practices and artifacts while also proposing a development in a culturally sensitive area and against a CIA that anticipates that Hawaiian cultural practitioners "may react negatively[.]" DEIS Appx. A at 35.

9. *Impacts of sedimentation on live corals and on essential fish habitat inadequately disclosed.*

Coral reefs are part of essential fish habitats (EFHs). The National Marine Fisheries Service (NMFS) recently commented on a proposed programmatic environmental review for beach nourishment projects in Hawaiʻi. In its comment, NMFS identified a variety of adverse effects from stressors on EFH that are likely to occur from beach restoration projects due to physical damage, sedimentation and turbidity, and nutrients and chemical contamination.[14] Physical damage may occur from direct contact to habitat forming EFH resources (e.g., corals and submerged aquatic vegetation).

Sedimentation and turbidity are also stressors that can result from activity at borrow areas, beach filling areas, and after-the-fact from micritic calcium carbonate leaching from beach fill. The last item was not discussed in the draft EIS. The draft EIS discloses that the project may result in sedimentation on live corals consequent to increased turbidity generated from dredging operations at the Puʻu Kekaʻa Sand Area. DEIS § 4.3.1. "The nearest live corals down-current from the dredge site are located approximately 3,000 feet to the south off Hanakaoo Point." *Id.* While the draft EIS "expect[s]" the sediment material to be "widely distributed and to be quickly dispersed by nearshore wave action and longshore currents," it is unclear why the same has not occurred for sediment that already plagues West Maui reefs. The draft EIS should explain why the nearshore waves and longshore currents at Hanakaʻōʻō will protect these reefs from sedimentation while other areas have not been so protected.

10. *Impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices inadequately discussed.*

Cultural resources include the sand crabs and other invertebrates who are the food for tako and nearshore fish that would be destroyed by excavating and then dumping 60,000 cubic yards of sand. Experts reviewing the ecological impact of beach replenishment have weighed in

[14] *See* DLNR, Statewide Small Scare Beach Restoration Program, Final Environmental Assessment, noticed Aug. 20, 2020 (PDF 197).

against the Ala Moana beach replenishment project on the basis that it will impact invertebrate populations and have undisclosed ripple effects across the larger ecosystem.[15]

WMPA officers and supporters include Hawaiian cultural practitioners whose fishing and diving practices at project areas rely on healthy ecosystems. Though the draft EIS states the seafloor offshore of the KLC is sand with no coral or reef, these sandy areas are used by multiple species. DEIS at 22. Species impacts mitigation, however, are only described for endangered species. DEIS at 184. Public comments indicate that conclusions that no benthic communities exist at the sand borrow site may be incorrect and should be revisited. DEIS at PDF 423.

Crabs and other crustacean species on and near the shoreline will likely be destroyed by the movement of heavy machinery and the placement of many tons of sand. These impacts were not discussed in the draft EIS even though they were raised by public comments, one CIA consultant, and the Coastal and Marine Uses Report. DEIS at PDF 282, Appx. C & D.

In conclusion, WMPA and others from the West Maui community have serious concerns about the short and long term impacts of the proposed project as well as the kinds of minimization and mitigation measures proposed. However, as a final note, we were especially pleased that the public scoping meeting included a question and answer session during which DLNR's Office of Conservation and Coastal Lands Administrator provided substantive responses to community concerns. Too often such hearings are one-sided presentations or merely provide a platform for concerned persons to speak without receiving any responses. We hope the Administrator's effort to respond to public questions will be repeated in DLNR's future environmental review meetings as well.

Thank you for considering out comments. We look forward to a fuller disclosure of the environmental impacts of and alternatives to the proposed project in future environmental review documents.

Yours truly,

Kai Nishiki, Vice-President
West Maui Preservation Association

[15] Christina Jedra, "Ala Moana Sand Replenishment will kill Sand-Dwelling Creatures, Researchers Say," *Civil Beat* (Aug. 28, 2019) *available at*: https://www.civilbeat.org/2019/08/ala-moana-sand-replenishment-will-kill-sand-dwelling-creatures-researchers-say/.

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June 8, 2021

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SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Nishiki,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled

out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

Your comments have helped us improve the discussion of managed retreat and how it might be applied to the coastline in Kā'anapali. It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

2. Secondary and Cumulative Impacts

We understand and value the public concern over potential Secondary and Cumulative impacts that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential secondary impacts to emergency services, resulting from changes to beach conditions and nearshore hazards.
- Potential secondary impacts by masking true rates of shoreline change, thereby affecting the real estate markets and coastal hazard assessments.
- Potential secondary environmental impacts resulting from recovery of sand in the offshore sand field.
- Potential cumulative impacts associated with a proposed beach restoration project five miles to the north.
- Potential cumulative impacts to cultural resources, based on potential to impact iwi kūpuna and possible contentious reaction to the project due to proximity to Puʻu Kekaʻa.

To address potential impacts to public safety updates were made to Section 2.2.5 Coastal and Nearshore Recreation and Section 2.2.6 Public Health and Safety.

Based on community feedback, we have conducted additional site investigations and produced an addendum to the marine environmental report, which can be found in Appendix C of the FEIS. This addendum improves the characterization of the nearshore marine environment, allowing for a more robust assessment of potential direct, secondary, and cumulative impacts to the marine environment.

To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. Post-construction monitoring proposed for this project can generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands. These post-construction monitoring efforts have been updated based on community and agency feedback and are detailed in Section 7.1 Monitoring Programs.

Additional discussion and analysis have been added to Section 2.2.7 Cultural Resources for iwi kūpuna, Pu'u Keka'a, fishing, surfing, diving, paddling, and other practices that may be impacted.

Section 2.2.5 Coastal and Nearshore Recreation has been revised to include freediving, gathering, and worship.
and Section 2.2.6 Public Health and Safety has been updated to more thoroughly discuss potential impacts to the beach and nearshore, including sand compaction, nearshore bathymetry, and waves.

Section 8 Unresolved Issues has been updated to include potential impacts to cultural resources, ocean recreation, and potential environmental concerns.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS. This section has been revised to address comments received during the public comment period, including discussion during the public meeting.

3. Adaptation alternative is not adequately described or considered as an alternative

The Maui Island Plan, Policy 4.2.3, states that the visitor population on the island should not exceed one third of the resident population. Maui exceeded this ratio in 2018, as noted in your letter. Though exceedance in previous years speaks to the increase in visitors relative to residents, the proposed project is not anticipated to result in an increase in visitor accommodation space, new development, or alterations to infrastructure. The proposed project is management and restoration of an existing beach resource, not expansion.

Additional language has been added to the EIS to expand on the managed retreat discussion, including an update to Alternative 3 Adaptation. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. See response to item 1 for more details.

4. Economic impacts on subsistence fishers and gatherers will be substantial even if of short duration.

Concerns raised through public review, public meetings, and focused discussions with individuals and small groups highlighted the need to further investigate and analyze potential impacts to

subsistence fishers and gatherers in the community. Public comments indicated that even a short-term impact to some of these community members could be serious.

The sand recovery area may have fisheries utilized by subsistence fishers in the region. To address this, the proposed project will:

- Require coordination between the contractor and the local subsistence fishing community. During construction the contractor and the State will provide schedule updates and maps showing the locations and timing of work.
- Relay updated schedules and projected locations for sand recovery, transport, and placement operations.
- Ensure the local subsistence fishing community has the maximum access allowable, given public safety concerns, to the sand recovery site and along the shoreline.

Post-project recovery of the ecology will range from immediately to less than a year. Previous studies and assessment of the project area indicate that many mobile species are likely to avoid the project during operation. For those species living within the sand, there will be a loss where sand is recovered. These species, based on previous studies and assessment of the project area, will likely return in less than one year.

Shoreline areas closed to the public will be limited to active construction areas utilized for sand offloading, sand transfer along the shoreline, and sand placement on the beach. Crossing guards will be available to assist beach users with safe transit across the transportation lanes, to and from the waterline.

Similar to the sand recovery area, previous studies indicate that mobile species in the active beach face and nearshore sand in the Hanakaʻōʻō Littoral Cell (HLC) are expected to vacate the area, while those that cannot depart will be lost during beach restoration. Those intertidal species that live within the active beach face and nearshore sand in the HLC are anticipated to recover in less than a year, following completion of the proposed beach restoration project.

Discussion in the EIS that relates to these resources, anticipated impacts, and the proposed mitigation, can be found in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.2.4 Beach Access
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring

Discussion has been added to the EIS in Section 8 Unresolved Issues, with respect to potential impacts to subsistence fishermen and gatherers.

5. Post-construction public safety impacts are not identified or mitigated

Public safety is discussed in several sections as it pertains to existing conditions and potential short-term and long-term impacts from the proposed project. These discussions are presented in the EIS, Sections 2.2.4 Beach Access, 2.2.5 Coastal and Nearshore Recreation, and 2.2.6 Public Health and Safety.

6. The project will exacerbate ocean user conflicts that are already under-regulated by the DLNR

Both nearshore and coastal recreation are discussed in the EIS in Section 2.2.5. There is a thorough discussion of the anticipated short-term impacts to both, and there is no expectation for long-term, secondary, or cumulative negative impacts to either nearshore or coastal recreation. Additional maps and discussion have also been added to Section 1.6, showing the sequencing and approximate daily work areas for each effort.

There is an expectation for an improvement in coastal recreation through the restoration of historic beach width in the HLC and the improved beach health in the KLC.

7. The Cultural Impact Assessment took an overly narrow view on culture and failed to engage West Maui communities

We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Cultural Impact Assessment (CIA) engagement of the community was not thorough.
- The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
- "The cultural resource people should be independent and NOT those paid by the developer."
- Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
- Activities near Puʻu Kekaʻa, which is a leina a kaʻuhane, may have a cultural impact.
- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Puʻu Kekaʻa and Kekaʻa Landing.
- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui Lana'i Island Burial Council. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project. Based on this thorough process and its results, as presented in the FEIS, no changes are recommended to CIA.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety,
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

Section 7.2 During Construction Mitigation and Monitoring contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

8. <u>Cumulative impacts on cultural resources and practices are inconsistently documented</u>
Based on this and other public comments, the Secondary and Cumulative Impacts section of the EIS has been revised and expanded. Please refer to the response to item 2.

9. Impacts of sedimentation on live corals and on essential fish habitat inadequately disclosed

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will coordinate with and contribute to that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data

sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

10. Impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices inadequately discussed

These discussions have been expanded to more thoroughly assess the concerns identified in the public review process. They are discussed above, in response to item 4, item 7, and item 9.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

On Wed, Oct 7, 2020 at 1:02 PM Kainalu Steward <stewardk@hawaii.edu> wrote:

Aloha to whom this email concerns:

I am writing to express my deep concern and firm belief of opposing the KŪhanapali beach restoration project. I appreciate you folks for taking the time to communicate this project over Zoom, as well as providing online resources for the public. After learning more about it and doing my own research, I am highly worried and doubtful about the succession of this project, especially in the long run. I see this project as a short term band-aid that will have major repercussions for our future coastline and community to deal with. On top of that, there are many cultural and community concerns, especially from those that are generationally connected to these places. I believe you folks have a huge kuleana to uphold and should make the right decision to stop this project from progressing any further.

mahalo,

Kainalu Steward

--

M.S Student, Tropical Conservation Biology & Environmental Science

University of Hawaiʻi at Hilo

stewardk@hawaii.edu

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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ROBERT K. MASUDA
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POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Kainalu Steward
M.S Student, Tropical Conservation Biology & Environmental Science
University of Hawai'i at Hilo
stewardk@hawaii.edu

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Kainalu Steward,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Concerns about the Proposed Project's Impacts on the Coastline

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Cultural and Community Concerns

The public was engaged during both the EIS Public Notice process and the Draft EIS process. Cultural and community impacts and concerns are documented and assessed in the EIS in Sections 2 and 5, and mitigation and best management practices are proposed in Section 7.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Talvi Kohler <talvi334@gmail.com>
Sent: Wednesday, October 7, 2020 11:43 AM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL]

Aloha!!!

May I please express major concerns towards the issue on Maui regarding sand pumping?!

First of all, this is a short term solution to a long term problem. The sand will disappear once again because of the sea walls built along our coastlines which create backwash or backward moving waves carrying sand out to deeper waters. These walls can be found stretching all the way from the start of the Pali to Kahana mostly to allow the roads and homes to be closer to the ocean. It seems like a selfish reaction to just build a wall. Natural dunes form predominately on our western shores because of wind and surf. The rate at which West Maui, Kihei and Pa'ia North Shore are losing sand is of immediate importance and action!

More importantly, pumping the sand is a huge environmental impact. You are disturbing thousands of native species in an extremely delicate ecosystem! The big storms and swells have waves which can reach down thousands of feet deep and will bring the sand back naturally if we restore the shoreline and proper dune restoration.

One sea wall or jetty can alter an entire coastline forever. There's way to many examples already! It's time to do it the right way! Take down the walls and create a natural shoreline. We need stricter laws enforcing larger shoreline setbacks!

Please make the only right choice in regards to this sand pumping issue!!! Your time and understanding is greatly appreciated!

Aloha

Mahalo

Talvi Kohler

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Talvi Kohler
talvi334@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Talvi Kohler,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Seawalls, Beaches, and Beach Restoration
Though alternatives, such as shoreline hardening, are discussed in the EIS in Section 5, beach restoration is the preferred alternative that is being proposed for coastal management and resource restoration. The EIS does not propose to construct any hardened structures as part of the preferred alternative.

We agree that the progressive loss of sand on Maui's coastlines is a critically important issue. To this end, beach restoration through the recovery and placement of highly compatible marine sand seeks to restore much needed volume to the natural beaches in Kā'anapali, Maui, Hawai'i.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy

erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

Marine Environmental Impact

The EIS addresses marine biology, ecologic resources, and waves and currents, as well as anticipated impacts from the project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

On Wed, Oct 7, 2020 at 11:45 AM kamauliola medeiros <kamauliolam5@gmail.com> wrote:

Aloha my name is Kamauliola,

I would like to say that you wonôt be restoring the beach in front of Kaanapali youôll ruining and killing all the reefs and fishes that live out on the shores over there. If the hotels werenôt built so close to the ocean then this problem wouldnôt even be happening. Think about the residents of Maui, of lahaina and what you would be doing to the reefs. Youôll be ruining the environment making fishing and diving worse for the people of Lahaina. The people of Maui will fight to make sure this project does not go through just like the telescope that was suppose to go on Mauna Kea. Put the residents first not the tourists!

Mahalo for your time.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
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POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Kamauliola Medeiros
kamauliolam5@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Kamauliola Medeiros,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

The EIS addresses marine biology and ecology resources and activities such as fishing and diving, as well as anticipated impacts to each from the project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Lola and Elia Naho oikaikika <lolaandelia808@gmail.com>
Sent: Tuesday, October 6, 2020 6:51:18 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Ka’anapali Sand

Aloha,

Please do not dump inland sand onto our beaches, the risk & impacts are not certain & if it’s bad it could be devastating to the already damaged reef & water.

Today we took our keiki to Ka’anapali, & the water was crystal clear, felt nice & didn’t have a bad smell for the first time in over 10 years.

If this goes wrong it will take 20 ++ years to come back from, if ever. Please do not do this. I plead with you, the future of Maui & the future of our keiki.

Mahalo,

Jess Bodin

Sent from my iPhone

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
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HONOLULU, HAWAI'I 96809

June 8, 2021

Jess Bodin
lolaandelia808@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear.Jess Bodin,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

The EIS addresses marine biology, ecologic resources, and waves and currents, as well as anticipated impacts from the project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
ffice of Conservation and Coastal Lands

From: isabel dalton <isabelpdalton@gmail.com>
Sent: Tuesday, October 6, 2020 7:00:37 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] Opposing 75,000 lbs of sand

Aloha, my name is isabel and i reside on the west side of Maui. I believe this proposal to put 75,000 lbs of sand on to Kaanapali beach is alarming. Its clear that you are looking at the problem from the WRONG angle. Hotels are built on top of hundreds of yards of sand. Kaanapali once was an enourrmass beach and is now covered in hotels. The ONLY way you will achieve a beach of that size again is to retreat the hotels away from the sand to keep erosion from happening. Dumping sand onto this already delicate area (reefs, marine life habitats) will only bring more stress on our sea life and the health of our reefs. I really hope you consider the livelihood of our ocean, reef, and sea life before the likes of tourists.

Mahalo for reading my opposition,

Isabel

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Isabel Dalton
isabelpdalton@gmail.com>

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Dalton,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled

out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

<u>Potential Environmental Impacts</u>
The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Beach restoration projects, such as the proposed project, can provide environmental and economic benefits to the region. Beaches provide erosion protection to the coastal plain and terrestrial lands, which by extension protects the remaining iwi kūpuna that may still lie *in situ,* mauka of the shoreline. Moreover, wider and healthier beaches dramatically improve access along the shoreline and recreational uses that depend on the sand beach.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

HSBPA
HAWAII SHORE & BEACH PRESERVATION ASSOCIATION

October 7, 2020

Samuel J. Lemmo, Administrator
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, HI 96813

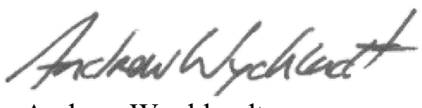
Aloha Mr. Lemmo,

On behalf of the Board of Directors and Members of the Hawai‘i Chapter of the American Shore and Beach Preservation Association (ASBPA) we are providing this letter of support for the Kā‘anapali Beach Restoration and Berm Enhancement project. We reviewed the Draft Environmental Impact Statement and find that the beach restoration and berm enhancement plan is consistent with the coastal conservation principles and policies of the state and represents an innovative approach to enhance coastal resilience in the South Kā‘anapali coastal zone.

Kā‘anapali is an immensely valuable coastal area. Among other benefits to our community, the beach system provides social, cultural and recreational use, habitat for endangered wildlife, scenic views, and resilience against natural hazards and climate change. Currently, the beach environment at Kā‘anapali is heavily degraded due to chronic and seasonal erosion. To address this issue, the Kā‘anapali Operators Association has partnered with the State of Hawai‘i Department of Land and Natural Resources to develop a plan that will restore the beach between Hanaka‘ō‘ō Beach Park and Hanaka‘ō‘ō Point and enhance the berm between Hanaka‘ō‘ō Point and Pu‘u Keka‘a. Review of the Draft Environmental Impact Statement suggests that appropriate and thorough investigations and studies have been conducted to locate compatible beach sand, design the sand placement and recovery areas, and develop Best Management Practices and other mitigation measures to avoid significant negative impacts to environmental or cultural resources. This plan is compatible and complementary with the objectives of the Special Management Area and the goals and objectives of the Hawai‘i Coastal Zone Management Program and associated statutes under Chapter 205A. Moreover, we also find that this plan is consistent with the objectives and mission of our organization.

The Hawai‘i Shore and Beach Preservation Association (HSBPA, http://asbpa.org/hawaii/) is an organization of private sector, academic, and government professionals, students, and local community members dedicated to the preservation, restoration, and sustainable use of Hawaii’s beaches and coastal environments. As the Hawai‘i Chapter of the ASBPA, we are dedicated to preserving, protecting, and restoring Hawaii’s coasts by merging science with public policy.

Sincerely,



Andrew Wycklendt
President, Hawai‘i Shore and Beach Preservation Association

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Andrew Wycklendt, President
Hawai'i Shore and Beach Preservation Association
Andrew.Wycklendt@aptim.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Wycklendt,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you support the project.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

Kaanapali Beach restoration comments.

Don Blair
2661 Kekaa Dr A209
Lahaina, Hi 96761

Per Executive Summary:

1. In my experience working at fortune 500 companies like Boeing and Texas Instruments whenever we have a proposal, we try to answer the following questions:
   What problem are we solving?
   What is the long-term benefit or payback?
   It's difficult to answer these questions on this proposal.
2. Why is there a gap in the berm enhancement in the Kaanapali Littoral Cell?
3. The project is intended to make Kāʻanapali more resilient to the effects of seasonal erosion and longer-term climate change. How? The proposal is to move sand and let the currents/waves remove/replace the sand at will. How is this making the beach more resilient?
4. What is the long-term climatic changes this project is mitigating?
5. Why isn't the long beach north of Puʻu Kekaʻa included in this project? Doesn't this section of beach experience the same seasonal erosion and longer-term climate changes?
6. It is not clear what problem this project is fixing. If this project goes ahead, will tourism increase? No, according to Hawaii Tourism Authority, the tourism rate in Maui has increased during the last 3 years. See Graph on next page. If beach erosion is an island wide problem, then visitors don't appear to care.
7. If this project goes ahead, how long will the deep-water sand that is enriched with microbes and bacteria smell? Anyone that has been to a sea shore with large tidal changes will know what smell I'm referring.
8. If this project goes ahead, what is going to happen to this 8.5 acre hole in the Puu Kekaa sand area ocean when the sand is removed? Is this included in the Environment Impact Statement?

Per After Beach Nourishment Plan fact sheet:

1. A 20 year project life span is estimated. How is this determined and what is estimated min/max lifespans?

Per Beach change fact sheet:

1. In the closing paragraph the Beach Change fact sheet states;
   Suspended sediment may impact corals. With sea level rise, wave action, and storms, Kāʻanapali Beach will continue to erode landward, even after the project. Again, I ask what problem are we solving?

Per the Benefits of Beach Nourishment Fact Sheet:

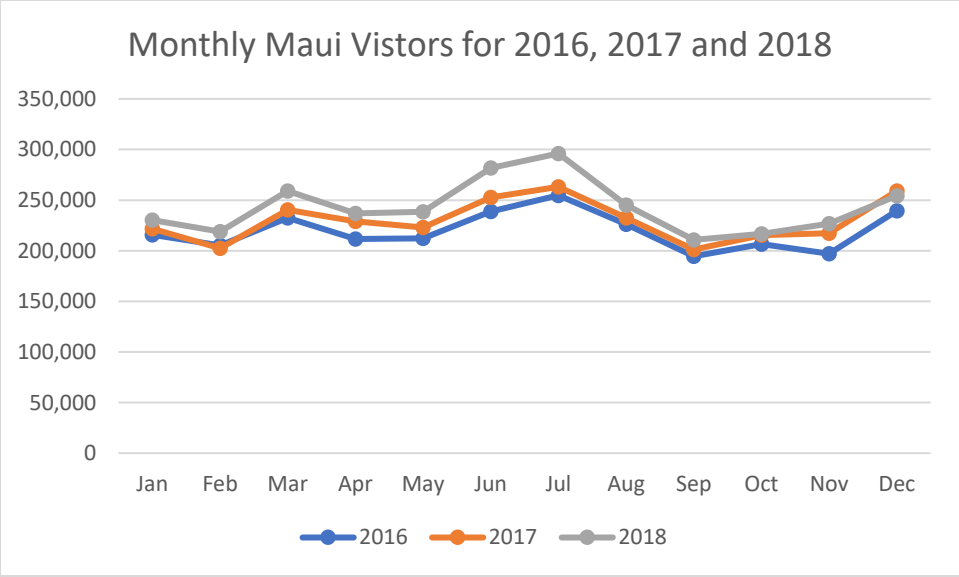
1. Per this fact sheet it states again that there is rising sea levels. Where is the data supporting this statement?

2. This fact sheet states this project is sponsored by the State of Hawaii and the Kaanapali Operators Association. How does this project benefits Hawaiian citizens?

Per the Environmental Impact Statement:

1. There is no long-term mitigation for marine biology per pg vi after an 8.5 acre hole is made in the ocean.
2. On Page 5 there is this statement:
   During a 2008 study of Waikīkī Beach on O'ahu, visitors said they are less likely to return if Waikīkī Beach is eroded or unavailable. Visitors to Kā'anapaliwould likely have a similar response to beach erosion. Facts do not back up this statement.

   Based on data from the Hawaii tourism authority for 2016, 2017 and 2018, the number of visitors to Maui is increasing. Again, what problem is this project fixing. It's not clear tourists care about the amount of sand on the beach given beach erosion is an island wide problem.



3. Per the damage shown on page 8, how is this project going to prevent this in the projected 20 years. Will tax payers be required, again, to pay for a solution. Why not fix the problem permanently, NOW, instead of this short-term solution? Are we leaving our children another problem they will inherent from us?
4. Per the executive summary a primary reason for this project is due rising sea level. Per section 2.1.3 the sea level is rising 3.4 +/- 0.4 mm per year. Given the projected 20-year length of this proposal, the sea level will rise 2.6 inches. It is not clear how this small change is making a significant impact. What problem will we fix? Any projections in this section past 2040 are irrelevant given to proposed solution.

This project is short sighted. This project will not fix anything and there is no long-term benefit for Hawaii residents. This project will only provide a short-term cosmetic solution. The original hotel designers built to close to the beach and the hotel owners must now address these poor decisions. The hotel owners need to move their amenities away from the beach and let the ocean move the beach sand naturally as the tides and currents have for eons.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

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OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Don Blair
2661 Kekaa Dr A209
Lahaina, Hawai'i 96761

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Blair,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

General Response

The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Beach restoration projects, such as the proposed project, can provide environmental and economic benefits to the region. Beaches provide erosion protection to the coastal plain and terrestrial lands. Moreover, wider and healthier beaches dramatically improve access along the shoreline and recreational uses that depend on the sand beach.

In response to your specific comments and questions, we provide the following:

Executive Summary

1. General Questions

- The project objective is to restore the coastal resource as a step in long-term coastal management for the region.
- The benefit lies in restoration of the natural resource, which is both an important part of the regional ecosystem and a public trust land.

2. There is gap in the berm enhancement project based on project logistics.
3. Coastal resilience on sandy shorelines is heavily affected by beach dynamics. When the beach's sand volume is diminished, the beach does not provide the same level of coastal natural hazard protection from phenomena ranging from storm waves to long-term erosion trends. Moreover, when sand volume becomes too low for a beach, it retards the beach's ability to respond to changes in the ocean environment, including water level, wave energy, and nearshore currents.
4. This project is a mid-term response to sea-level rise and changes in storm intensity.
5. The beach north of Puʻu Kekaʻa is a separate and unique littoral cell, which was not included in the proposed project. Many beaches in Hawaiʻi are eroding and are deserving of restoration actions; however, this proposed project is focused on just one reach of coastline.
6. The project objective is to restore the coastal resource as a step in long-term coastal management for the region. The benefit lies in restoration of the natural resource, which is both an important part of the regional ecosystem and the public trust land.
7. The "smell" is discussed in the EIS in the Executive Summary, in Section 5, and Section 6. The anoxic scent typically last less than week.
8. The sand recovery site is discussed at length in the EIS, in Section 2 and Section 5.

<u>Fact Sheet – After Beach Nourishment</u>

1. The proposed project's projected lifespan is estimated based on calculated average annual erosion rates. This estimate assumes typical conditions. Though erosion rates have accelerated in the last 33 years, they are not currently changing rapidly. If sea-level rise rapidly accelerates, erosion rates may accelerate also. Extreme coastal hazards can dramatically effect sand beaches and could move the restoration sand away from the project area. Alternately, the very low probability of water level reduction could extend the life span dramatically.

<u>Fact Sheet – Beach Change</u>

1. The project objective is to restore the coastal resource as a step in long-term coastal management for the region. The benefit lies in restoration of the natural resource, which is both an important part of the regional ecosystem and public trust land.

<u>Fact Sheet – Beach Nourishment</u>

1. Changes in sea level are tracked locally as individual tide gauges, which are part of a national network managed by NOAA (https://tidesandcurrents.noaa.gov/map/index.html?region=Hawaii). NOAA also provides long-term data analysis for each tide station (https://tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtml?id=1615680). The tide stations in Hawaii all show a trend of rising water levels over a multi-decadal time scale. This is in keeping with regional and global water level data, including Satellite altimetry data.

2. Sand beaches are public trust lands in Hawai'i. Beach restoration provides benefit to the environment, the general public who utilize the beach, and backshore amenities and infrastructure through hazard mitigation.

Environmental Impact Statement

1. Previous projects in Hawai'i have documented rapid recovery for the invertebrate ecology in sand recovery areas. Mitigation is in the form of engineering design, utilizing a shallow, current parallel recovery area, which has been documented to minimize impacts to the adjacent field after sand recovery ends.
2. The statement that visitors are less likely to return to a degraded beach was based on a 2008 study at Waikīkī Beach, Oahu, Hawai'i. The statement is based on a drastically impacted beach. The intent of the proposed project is to restore the beach before it becomes drastically impacted by erosion.
3. Coastal management now and well into the foreseeable future will rely on a suite of varied and evolving design and adaptation options. There is no way to predict what future options will be best suited for the region. Additional restoration efforts may be suitable options in the coming decades, and should not be ruled out; however, that does not negate the need for investigation and parallel adoption of other, more long-term, management options. Beach restoration is a mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented.
4. Sea level rise is discussed throughout the document. A section is dedicated solely to the topic in Section 2. Local sea level change at Maui has been documented at around 2.23 mm/yr. For the proposed project's estimated lifecycle of 20 years, based on current average annual erosion rates, there is projected to be approximately 1.75 inches of water level increase. This project does not propose to fix sea-level rise, rather it proposes to restore a sandy coastal resource that has been affected by sea-level rise.

Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration

is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

Your comments have helped us improve the discussion of managed retreat and how it might be applied to the coastline in Kā'anapali. It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

October 7, 2020

To: Governor David Ige
Executive Chambers, State Capitol
415 South Beretania Street
Honolulu, HI 96813
via: https://governor.hawaii.gov/contact-us/contact-the-governor

Cc: Sam Lemmo, Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
1151 Punchbowl Street
Honolulu, Hawai'i 96813
sam.j.lemmo@hawaii.gov

Christopher Conger
Sea Engineering Inc.
Makai Research Pier
41-305 Kalanianaole Highway
Waimānalo, Hawai'i 96795
cconger@seaengineering.com

Subject: Comments of the Surfrider Foundation on the Department of Land and Natural Resources' Kāʻanapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement, Lahaina, Maui, noticed August 23, 2020

To Whom It May Concern:

On behalf of Surfrider Foundation and the Maui Surfrider Foundation Chapter, we submit the following comment letter regarding the Draft Environmental Impact Statement (DEIS) for Kāʻanapali Beach Restoration and Berm Enhancement ("Project"). The Surfrider Foundation is a non-profit grassroots organization dedicated to the protection and enjoyment of our world's ocean, waves, and beaches for all people. Surfrider Foundation maintains 90 active chapters worldwide, including 5 chapters within the Hawaiian Islands Region.

While the Surfrider Foundation appreciates that this project is not proposing shoreline armoring, we have a number of concerns with the proposed beach restoration. Given the size and scope of the project, we are furthermore concerned about the precedent that this type of project will set for other high-erosion coastal areas throughout Hawaii, particularly without the proper evaluation and inclusion of a managed retreat plan. Without more careful consideration and analysis of the following concerns, Surfrider Foundation cannot support the proposed Project.

Concern #1: Lack of evaluation given to the alternative of "Managed Retreat"

The DEIS section *5.2 No-Action Alternative and Deferral of Action Alternative* outlines the No-Action Alternative and includes the alternative of "Retreat". We take serious concern with the

minimal evaluation of the "Retreat" option within the Project's DEIS. For example, of the Project's 427 page DEIS, only one page was dedicated to evaluating the option of "Retreat" and fails to present the long-term benefits of managed retreat. A more careful and detailed analysis of managed retreat (e.g. costs, benefits to the environment and community, and potential impacts) needs to be developed before this project moves forward. If large-scale beach renourishment is to occur, it should only occur in conjunction with (not in favor of) a holistic, managed retreat plan.

Furthermore, though Surfrider Foundation gives preference to beach renourishment (e.g. "soft armoring") over "hard armoring," the acceleration of sea level rise and chronic erosion events warrants that the state of Hawaii and this Project provide a more formal evaluation of managed retreat options. To clarify, coastal erosion is NOT a problem for beaches - it is a problem for buildings. As the state of Hawaii has recently acknowledged:

> *"Stated frankly, beaches and coastal development may not be able to coexist in a future with sea level rise. Now that we're beginning to see this first-hand, perhaps it's time to step back and consider where we are going, what we are doing, and what is really at stake."*
> *(Office of Conservation Coastal Lands Staff, https://climate.hawaii.gov/hawaii-beaches/, July 17, 2020)*

The Project DEIS additionally fails to adequately acknowledge that beach renourishment is not a long-term solution to beach erosion. While the proposed project has an estimated lifespan of up to "20 years" (DEIS pg. 12), beach renourishment often needs to occur as often as every two to ten years[1]. Simply stated, beach renourishment is a short-term "band-aid" rather than a long-term, holistic solution. For example, in referring to a 2008 storm event, the Project DEIS itself states:

> *"... damage occurred quickly, with no time to implement an emergency response, further highlighting the Kā ʻanapali shoreline's vulnerability to extreme wave events."* (Project DEIS pg. 6)

It is disingenuous to acknowledge Kāʻanapali shoreline's vulnerability to extreme wave events on the one hand, while proposing a short-term project that will in no way reduce the long-term

[1] Committee on Beach Nourishment and Protection. Marine Board, Commission on Engineering and Technical Systems, National Research Council. Beach Nourishment and Protection. National Academy Press. Washington, D.C. 1995.

vulnerability of shoreline structures. The ongoing situation at Waikiki Beach on Oahu further highlights the variable nature of beach renourishment projects.

> "*The beaches in Waikiki have been maintained only through semi-regular nourishment and construction of a myriad of erosion control structures, including groins and breakwalls." (Beach Restoration in Hawaii: Challenges and Opportunities, 2014 https://bit.ly/3jAL1dC)*

Chronic erosion and sea level rise are both clearly documented along Maui's shorelines, particularly along Kāʻanapali Beach. To propose that a one-time sand renourishment project will mitigate either of these issues for the long-term is short sighted and provides a false sense of security. The situation at Kāʻanapali also raises serious questions regarding the validity of the proposed project's estimated 20 year lifespan and, again, requires a more thorough review of a managed retreat option.

Without a holistic plan to relocate the coastline structures (e.g. boardwalk and resorts) further from the ocean, we will be in the same situation in the near future. The lack of fully evaluating a managed retreat option within the Project's DEIS furthermore prioritizes tourism and short-term solutions over community interests and long-term concerns. Lacking a comprehensive plan to relocate the shoreline structures, Surfrider Foundation finds serious fault with, and cannot support, the currently proposed renourishment project.

Concern #2: Lack of comparison between the proposed project and other large-scale beach renourishment projects

Currently, the DEIS only evaluates 3 alternatives: 1. Temporary Shore Protection, 2. Permanent Buried Shore Protection, and 3. Adaptation. The DEIS basically presents an all or nothing approach, and does not include a "middle-of-the-road" alternative that would assess a smaller scale version of the renourishment proposal, nor does it fully evaluate a managed retreat alternative (see Concern #1 above).

In terms of cubic yards of sand, the proposed Project (~75,000 cubic yards of sand) would be the largest beach renourishment project on Maui and second in the state only to the Iroquois Point restoration project on Oahu (~100,000 cubs yards of sand). It should be noted that the Iroquois Point project also required the construction of nine T-Groins to stabilize the sand that was dredged from the Channel at Pearl Harbor. In comparison, the 2012 Waikiki Beach Restoration Project recovered 27,000 cubic yards of sand from a channel on the nearshore reef using a hydraulic suction dredge. A smaller, privately funded project in 2010 nourished Sugar Cove on Maui with 2,886 cubic yards of sand hydraulically dredged from an offshore sand field.

Needless to say, the proposed Project at Kāʻanapali represents a significant dredge-and-fill project, not only for Maui County, but for the entire state of Hawaii. The environmental, cultural, and recreational impacts of removing and relocating 75,000 cubic yards of offshore sand are likely understated in the DEIS and there are few - if any - similar projects in terms of size and scope in Hawaii. Not only should a more thorough comparison be completed between the proposed Project and other similarly sized projects, but the DEIS should further evaluate an alternative that is smaller in both size and scope.

For example, a middle-of-the-road approach may include a smaller-scale renourishment project that is only implemented at "emergency level" erosion hotspots. In the meantime, DLNR could reallocate some of the project construction funds to develop a proactive management plan and seek federal funding opportunities for transitioning development out of the coastal zone. The DEIS needs to carefully consider other alternatives before determining that the current Project proposal is the best solution.

Concern #3: Failure to fully evaluate the project's impact on ocean recreation activities, specifically surfing and bodyboarding.

Surfing and wave sports are not only a public resource that should be protected, but also native Hawaiian traditions and customary practices. It should additionally be noted that within the framework of the National Environmental Policy Act (NEPA), a "surf spot" is considered a "natural cultural resource." Given the above, and due to the fact that every beach is not a suitable surf-break, it is imperative to protect Maui's existing surfing and bodyboarding breaks, including year-round breaks at Hanakaʻōʻō Point and seasonal spots at the north end of Kāʻanapali Beach.

The DEIS recognizes surf breaks located on the reef offshore Hanakaʻōʻō Point and the north end of Kāʻanapali Beach, which is also used as a bodysurfing, bodyboarding, and skimming site. (DEIS pg. 113). Additionally, there is a "short-lived" winter swell surf spot that may form along the outer edge of the sandbar with waves extending as far south as the Kāʻanapali Beach Hotel that is in the project area (DEIS pg. 113).

The DEIS states there is "*the potential for the proposed project to initially have some impact on surfing at Hanakaʻōʻō Point*," (DEIS pg. 117) but maintains that "*the beach restoration and berm enhancement project are expected to have no effect on surfing after the first southern swell season."* (DEIS pg. 117).

However, massive dredge-and-fill projects have been demonstrated to do serious and sometimes irreparable harm to beaches, surf-breaks, and reefs. As described by a 2018 research paper, beach nourishment projects have been found to:

> *"...adversely affect the quality of surf breaks by (1) compression of the surf zone, (2) an increase in the occurrence of "close-outs," (3) a shift in breaker type toward collapsing breakings, particularly during high tide, and (4) an increase in wave reflection." (Dally & Osiecki, 2018).*

Dally & Osiecki further conclude that at the New Jersey study site, it will take (at a minimum) 21-22 months for the surf-break quality to return to pre-project conditions.[2]

While the DEIS acknowledges that the Project will "*initially have some impact on surfing at Hanaka ʻō ʻō Point*" and acknowledges undesirable wave reflection for the "*first few swells of summer surf season*," it fails to detail the modeling that was used to reach this conclusion or to compare the Project's impact on surf-breaks to other, similarly sized renourishment projects in surf-break areas. Furthermore, just because the DEIS concludes that a wave will continue to "break" at Hanakaʻōʻō Point post-renourishment does not mean that the wave will retain characteristics of a "surfing wave" (e.g. does not "close out," etc.).

Suitable surf-breaks are dependent upon specific bathymetric and sand transport requirements[3] . Due to these specific requirements, not every beach or every wave is suitable for surfing. In addition, surf-breaks can change quickly in response to large storm waves or the influx of a large quantity of sand as occurs with a beach nourishment project.[4] These spatial and temporal variations can improve or degrade the surfing conditions along a reach of coastline.[4] While in theory, time and normal storm activity will eventually equilibrate the nourished beach to the shape of the natural pre-nourished beach, the adjusted profile is based on many factors that are still unknown - including how the sand used to renourish the site will behave in response to wave, wind, and tide forces. The American Shore & Beach Preservation Association additionally stresses the need for renourishment projects to assess the long-term morphological changes associated with increased (in the case of beach nourishment projects) sediment transport into the surfing area[4].

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[2] Dally, W.R. and Osiecki, D.A. 2018. Evaluating the Impact of Beach Nourishment on Surfing: Surf City, Long Beach Island, New Jersey, U.S.A. *Journal of Coastal Research*. 34 (4): 793-805. https://bit.ly/3nlU842

[3] Walker, J.R., 1974. "Recreational surf parameters." Technical report, University of Hawaii, James K.K. Look Laboratory of Ocean Engineering, 73-30, 311

[4] American Shore & Beach Preservation Association, Science and Technology Committee. 2011. Surfers as coastal protection stakeholders. http://asbpa.org/wpv2/wp-content/uploads/2016/04/Surfing_White_Paper_FINAL.pdf

With these factors in mind, we find the DEIS lacking in both its short- and long-term analysis of the impact of 25,000 cubic yards of offshore sand on the Kāʻanapali surf breaks, along with the additional 50,000 cubic yards of offshore sand deposited along a mile stretch of Kaʻanapali Beach. We therefore request a more detailed modeling and analysis of the full impacts of the proposed Project on surfing and bodyboarding breaks along Kāʻanapali Beach.

In addition, the American Shore & Beach Preservation Association highlights that an integral part of beach renourishment projects is *"...the inclusion of surfing interests early in the project evaluation and planning."*[4] Though Surfrider Foundation is acknowledged in Appendix C., to the best of our knowledge, no surfing interest, including Surfrider Foundation, have been contacted with respect to this Project. We did not receive email communications or outreach from project consultants. Our concerns have therefore not been reflected within the DEIS nor in scoping meetings. We request a more inclusive process, one that more fully incorporates the surfing, bodyboarding, and ocean recreation communities.

Concern #4: Failure to fully evaluate environmental impacts and detail post-project monitoring

The current DEIS fails to fully evaluate the Project's environmental impacts. For example, the DEIS states that "*the documented structure of the marine communities indicates that within the nearshore area where waves regularly break, the physical habitat is either sand or a flat barren limestone bench with essentially no benthic community, with no corals present*" (DEIS pg. 99). On the contrary, the high energy surf zone and intertidal wave environment is a well known and important habitat for various marine animals, including ghost crabs. Knowing the importance and reality of the intertidal surf zone's ecology, a more robust evaluation and documentation of intertidal biology should be conducted and presented.

In addition, the DEIS incorrectly states that "*none of the Hawaiian sea turtles is known to nest in the project vicinity*" (DEIS pg. 103). Local marine biologist Cheryl King, however, has documented green sea turtle hatchlings in the area, indicating that nesting could be present in the area. Furthermore, there is a lack of sea turtle monitoring in the area. Therefore, the more accurate conclusion to draw is that additional monitoring (both pre- and post-project) is required to ensure that impacts to green sea turtles and other sea turtle species are truly minimized. This monitoring should be included within the DEIS and as a condition of the project.

The DEIS also fails to recognize that in addition to humpback whales and Hawaiian monk seals, dolphins (odontocetes) are present in and around the Kāʻanapali Project area. Odontocetes, including Hawaiian Spinner Dolphins and Pacific Bottlenose Dolphins, are federally protected through the Marine Mammal Protection Act (MMPA). And while the Project monitoring plan

outlines how trained observers will be used to monitor endangered species (e.g. whales and turtles) in the area during construction, it seems to limit observers to "30 minutes prior, during, and 30 minutes post daily activities" (DEIS pg. 184). However, owing to the highly transient nature of turtles, dolphins, whales, and monk seals in the area, observers should be permanently stationed during the Project's construction, including at nighttime when wildlife may enter potential hazardous construction areas. Observations for ESA listed animals and other wildlife should not be limited to set increments of time.

Finally, there is no detailed plan for post-project monitoring of ecological impacts. In fact, post-project monitoring is limited to a single page and only details monitoring of the beach profile. The monitoring does not detail monitoring of benthic communities, endangered species, coral reefs, marine mammals or beach ecology. A monitoring plan that documents local marine and beach ecology before, during and after the proposed Project needs to be clearly detailed and outlined, especially given the fact that the proposed Project will span nearly one mile of sandy, intertidal beach.

Conclusion:

In conclusion, Surfrider Foundation and our supporters have serious concerns about the short- and long-term impacts of the proposed project, as well as the kinds of minimization and mitigation measures proposed.

However, as a final note, we were especially pleased that the public scoping meeting included a question and answer session during which DLNR's Office of Conservation and Coastal Lands Administrator provided substantive responses to community concerns. Too often such hearings are one-sided presentations or merely provide a platform for concerned persons to speak without receiving any responses. We hope the Administrator's effort to respond to public questions will be repeated in DLNR's future environmental review meetings as well.

Thank you for considering our comments. We look forward to a fuller disclosure of the environmental and surfing impacts of, and alternatives to, the proposed project in future environmental review documents.

Thank you,

Lauren Blickley
Hawai'i Regional Manager
Surfrider Foundation

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GOVERNOR OF HAWAI'I

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June 8, 2021

Lauren Blickley
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SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Blickley,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Lack of evaluation given to the alternative of "Managed Retreat"

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled

out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

2. <u>Lack of comparison between the proposed project and other large-scale beach renourishment projects</u>

Kā'anapali Beach encompasses two large littoral cells, the Hanaka'ō'ō Littoral Cell to the south and the Kā'anapali Littoral Cell to the north. These littoral cells have a leaky (sand sharing) boundary around Hanaka'ō'ō Point near the middle of the proposed project area. The physical setting and wave characteristics affecting the site are unique when compared to other large beach projects in the State. The Iroquois Point beach nourishment and stabilizing structures project utilized a similar sand volume (~96,000 cy) but incorporated sand stabilizing T-head groins. The 2012 Waikiki nourishment project did not utilize sand stabilizing structures, but also had a smaller overall volume (~24,000 cy) and defined littoral bounds. Smaller projects have been completed throughout the State, but do not compare in scale or physical setting. These projects have been referenced where information or project parameters are applicable to the proposed project.

The proposed project was designed to work within the existing physical setting, allowing waves and currents to assist in beach equilibration and the southern reef to modulate wave energy. Additionally, due to the size of the littoral cells and their exposure to waves and nearshore currents, restoration only at erosion hotspots would be very short lived as the beach quality sand would rapidly spread throughout its littoral cell.

Hawai'i is unique when compared to other domestic beach nourishment projects. Most projects conducted on the mainland utilize millions of cubic yards of sand for placement along multiple miles of shoreline. To date, projects in Hawai'i are significantly smaller and utilize focused placement of sand based on highly variable reef modulated nearshore waves and currents. These are substantively different than typical mainland projects.

As such, research and design efforts were focused on the unique setting and requirements for restoration at Kā'anapali Beach, across two littoral cells. What lessons could be gleaned from other local and domestic projects have been included in the text of the EIS. Applicable reports and publications have also been including in the effort and are presented in Section 10 Glossary.

3. Failure to fully evaluate the project's impact on ocean recreation activities, specifically surfing and bodyboarding

We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Cultural Impact Assessment (CIA) engagement of the community was not thorough.
- The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
- "The cultural resource people should be independent and NOT those paid by the developer."
- Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
- Activities near Pu'u Keka'a, which is a leina a ka'uhane, may have a cultural impact.
- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Pu'u Keka'a and Keka'a Landing.
- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui Lana'i Island Burial Council. An additional meeting was held with Surfrider Foundation, the DLNR, and SEI to further discuss the concerns and comments presented in the Surfrider letter. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project. Based on this thorough process and its results, as presented in the FEIS, no changes are recommended to CIA.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety,
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

Section 7.2 During Construction Mitigation and Monitoring contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

4. Failure to fully evaluate environmental impacts and detail post-project monitoring

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.

- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will coordinate with and contribute to that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality

- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

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October 6, 2020

The Honorable David Y. Ige
Governor, State of Hawaii
Executive Chambers
State Capitol
415 South Beretania Street
Honolulu, Hawaii 96813

Dear Governor Ige:

SUBJECT: COMMENTS ON A DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE KAANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT, SEAWARD OF TMKS: (2) 4-4-013:001, 002, 006, 007, 008, 013, AND (2) 4-4-008:001, 002, 003, 005, 019, AND 022 (EAC 2020/0006)

This letter is in response to an August 23, 2020 notification from the Department of Land and Natural Resources-Office of Conservation and Coastal Lands (DLNR-OCCL) and concurrent publication in the Office of Environmental Quality Control's "The Environmental Notice" that the above subject DEIS is available for review and comment. The Maui County Department of Planning (Planning Department) understands that, very briefly stated, the project would accomplish beach restoration by the means of beach berm enhancement to raise the elevation of the dry beach by 3.5 feet between Hanakaoo Point and Puu Kekaa with 75,000 cubic yards of sand recovered from an 8.5-acre sand deposit located approximately 150 feet off shore of Puu Kekaa in 28 to 56 feet depth of water.

Thank you for the opportunity to comment on the published DEIS. The Planning Department attended the public meeting held virtually on September 24, 2020 and understands the preferred beach restoration alternative presented by Sea Engineering, Inc. The Planning Department provides these comments as a commenting agency for the DEIS.

As background and to provide further context, the Planning Department notes that its comments are provided for the DEIS recognizing that there are similar chronic coastal erosion situations on the west side of Maui along other once-sandy shorelines. These areas include: Kaanapali Beach Club parcel in the northern Kaanapali area; ten shoreline parcels at Kahana Bay; and seven shoreline parcels at Napili Bay. Each of these additional chronic erosion hot spots are experiencing at-risk structures now threatened due to loss of sandy beach resources. The Planning Department is working in partnership with owners, community groups, and DLNR-OCCL for each of these additional shoreline areas. Most likely, the preferred alternative for each of these chronic erosion hot spots will include short to intermediate term beach restoration coupled with proactive planning for some level of managed retreat of these at-risk structures, where possible.

Both the Planning Department and the proposing agency recognize that this project will have environmental impacts. Environmental impacts may include ecological, social, and economic impacts. The purpose of the EIS is to identify these potential impacts and to seek a solution that will mitigate and minimize these impacts, including an exploration of alternatives to solving the ongoing coastal erosion problem. Within this context, the Planning Department supports proactive planning solutions such as a beach restoration preferred alternative presented by this DEIS as a critical first step to minimize, if not eliminate, future hardening of the Kaanapali shoreline. The Planning Department supports a modified final preferred alternative presented on September 24, 2020 that will: minimally impact coastal ecosystems; protect at-risk habitable structures; and address community concerns.

The Planning Department provides the following comments:

1. The Planning Department understands that the DLNR-OCCL is the proposing agency for the DEIS.

2. The Planning Department works closely in partnership with DLNR-OCCL on many Maui County coastal erosion situations and has a good understanding of the purpose for this project and the various mitigation alternatives and options and, as such, supports this project as the preferred alternative, as proposed. However, below, the Planning Department requests additional mitigation actions associated with this preferred alternative, to include consideration of managed retreat for both habitable structures as well as vulnerable areas of the pedestrian boardwalk and uninhabited structures, as opposed to continued or new temporary hardening of the shoreline in these areas.

3. The Planning Department also understands the cultural sensitivity of this preferred alternative and seeks to gain the positive endorsement from the community as a prototype for similar coastal erosion "hot spots" in West Maui that both DLNR-OCCL and the community are aware of. The Planning Department requests that the proposing agency continues to seek and hopefully reach community consensus to move forward with the beach restoration project. To this end, please document community concerns regarding movement of sand from the Puu Kekaa area for the preferred beach restoration project. Perform follow-up interviews and meetings with community members who provided testimony at the September 24, 2020 public forum held virtually. Document community concerns and incorporate community design input into the beach restoration preferred alternative. For environmental impacts identified by the community, please suggest monitoring programs, when and where possible, that will monitor and document the present condition, as well as the short term and long term impacts as a result of this project.

4. Please obtain comments on the DEIS from the Maui Planning Commission (MPC).

5. The Planning Department provides the following three supportive, experiential observations based on coastal erosion mitigation efforts along the West Maui shoreline over the past decade:

a. The Planning Department concurs that an important positive impact resulting from the project will be to increase the volume of sand at the shoreline to improve the beach profile which, in turn, will minimize, delay, and/or eliminate future coastal erosion that could threaten habitable structures which could result in a request for deployment of emergency protective measures.

b. The Planning Department considers this proposed preferred alternative of beach restoration as a positive shift towards proactive shoreline planning designed to avoid the repeated emergency protective measures which have included deployment of temporary sand bag revetments and erosion skirts. These protective measures are expensive to deploy and remove, and they often remain deployed for years. Sand bag revetments disrupt the shoreline and coastal ecosystem and are more impactful to the coastal ecosystem than beach restoration. The Planning Department views this project, with maintenance, as a short to intermediate-term solution to address documented and ongoing coastal erosion in the Kaanapali region.

c. The Planning Department supports the efforts of DLNR-OCCL and the Kaanapali Operators Association (KOA) towards proactive shoreline planning at the proper beach-cell scale, based on data and observations derived from this DEIS. This project proactively moves from the less effective, reactive County and State permitting on a parcel-by-parcel basis towards proactive shoreline planning in order to minimize impacts to our coastal ecosystems. This effort serves as an important model and learning experience, both positive and negative, for other similar scale projects envisioned for West Maui shorelines as referenced above.

6. Please address additional mitigation as part of your preferred alternative to include identification, design, and documentation of potential managed retreat opportunities for both at-risk habitable structures and uninhabited structures threatened by coastal erosion. Include planning timelines for identified potential managed retreat projects. The Planning Department has supported seeking sand solutions as a short to intermediate term solution, coupled with longer-term managed retreat for at-risk structures. The "soft sand solution" in the short term provides time necessary to develop managed retreat options for at-risk structures along Kaanapali Beach. The Planning Department requests the KOA's consideration of proactive planning for managed retreat as follows:

   a. Please address options for managed retreat of non-habitable structures that have been repeatedly threatened by a chronic coastal erosion hot spot fronting the Hyatt Regency parcel. Also explore and document enhancements of the dune in this same area.

   b. The DEIS has identified and documented the chronic erosion hot spot fronting the Hyatt Regency property at the pedestrian boardwalk area. For the past four years, the pedestrian boardwalk, the uninhabited Hyatt Grotto Bar structure, and portions of the pool have been protected with a permitted temporary

erosion skirt as this DEIS study has proceeded. The Planning Department requests that you describe and document a solution to permanently remove the currently deployed erosion skirt as part of the Final EIS.

c. Please provide and document alternatives and conceptual designs for solving this referenced hot spot so that no future manmade structures are sought to be constructed in this area. The Planning Department suggests that, as part of the final project, the proposing agency and/or the KOA work with the new Maui County University of Hawaii Sea Grant Dune Management Coordinator to examine the options for enhancing the dune in the area of the erosion skirt.

d. Please examine and discuss the most practicable solution to mitigating the vulnerable pedestrian boardwalk fronting the Hyatt Regency such as relocating the pedestrian boardwalk to a less vulnerable inland location. Similarly, examine and discuss, at least conceptually for the Final EIS, relocation of the Grotto Bar structure and vulnerable makai portions of the pool area.

e. Please examine and discuss managed retreat for the vulnerable Molokai Wing at the Kaanapali Beach Hotel parcel and for the large pool at the Sheraton Hotel parcel. Both of these structures have been subject to past temporary shoreline hardening to protect them from episodic coastal erosion. In both cases, the sandy beach profile has returned and the temporary shoreline protection has been removed.

f. Please examine and discuss managed retreat options for relocating the pedestrian boardwalk fronting the Kaanapali Alii that has been subjected to episodic coastal erosion.

7. The MPC is currently reviewing a draft update to the West Maui Community Plan. It can be accessed at https://wearemaui.konveio.com/draft-west-maui-community-plan. The proposed schedule has them completing review this year, and the Maui County Council (MCC) approving a final version in 2021. This draft document provides a good indicator of policy direction which has relevance to circumstances associated with the proposed project, particularly Goal 2.1 in Section 2, and the actions for that goal in Section 4. Note that Goal 2.1.1 would support the retention of existing golf course land in Kaanapali to be available for the eventual inland retreat of shoreline development because of impacts from sea level rise or other coastal hazards.

8. Relative to page 150, due to onshore staging and related operations required for the proposed project and the project's estimated cost of $9,000,000 to $11,000,000 the Planning Department anticipates that a Special Management Area (SMA) Use Permit will be required from the MPC and a Shoreline Setback Approval will be required from the Planning Department before implementation of the proposed project.

9. The Planning Department requests that the project incorporate a coastal dune and vegetation management plan. Coastal dunes are a key part of a "healthy" beach system. Vegetated dunes create an elevated berm and dense root system that serve as a natural erosion buffer and provide a critical reserve of additional sand to protect against seasonal and episodic high wave flooding and erosion. Other benefits of dune management include designated and safe shoreline access, ecosystem benefits such as habitat for native plants and animals, aesthetic appeal, and increased ecological awareness of beach users.

   There has been a long-term challenge with vegetation management at Kaanapali. While it is the Planning Department's understanding that some encroaching naupaka will be trimmed back to allow for the project's sand placement, the existing challenges will not be resolved, and may even worsen, in the absence of guidance or plans and further management. A dune and vegetation management plan would provide guidance for planting strategies including native plant selection, appropriate plant placement, ongoing maintenance strategies, and watering limitations.

   The plan would also provide for designated shoreline access paths for human ingress and egress to the beach and informational signage. There are good examples of coastal dune management along Kaanapali's north beach area that demonstrate the opportunity to more effectively balance resort uses with public access and natural resource protection. While jurisdictional boundaries (state, county/private) are often cited as a barrier to the management of landscaping, this should not be the case for a project of this magnitude that is intended to balance protection of the built and natural environments. The project should not bifurcate the beach system by ending at the vegetation line. Rather, there is much opportunity to develop guidance and plans, with the support of locally based subject matter experts, in partnership with the DLNR-OCCL, the County of Maui, the KOA, the resort properties, and the public. These plans can consider the whole beach as a natural and dynamic system and reconsider landscaping in a way that will result in greater awareness of and consistency for improved coastal management and the associated benefits.

10. The Planning Department requests that additional sources of information on water quality and reef ecosystem health be included in the baseline assessment in the Final EIS. It appears that the DEIS does not include water quality measurements over the last five years from the community organization Hui O Ka Wai Ola in partnership with the Hawaii Department of Health (DOH). Additionally, the DEIS does not include clear maps of the reef tracts in relation to the project activities, or expressly acknowledge the significance of these particular reef sites. The reefs at Honokowai and Wahikuli are federally recognized priority sites as part of the U.S. Coral Reef Task Force coral conservation program. These reefs are among some of the most ecologically intact and biologically important reef tracts in the region.

The project site also falls within the State's Kahekili Herbivore Fisheries Management Area (KHFMA). These reefs are among the most studied reefs in the region, and there are numerous studies conducted by the DLNR's Division of Aquatic Resources and the University of Hawaii. However, baseline data does not adequately characterize and quantify the condition of these reefs, nor adequately explain the potential impacts and mitigating measures. The following documents provide important additional information:

a. The 2020 State of Hawaii Water Quality Monitoring and Assessment Report includes integrated data from Hui O Ka Wai Ola is found at: https://health.hawaii.gov/cwb/files/2020/06/DRAFT-202-303d-305b.pdf

b. The Reef Condition Report from West Maui Ridge to Reef is found at: https://www.westmauir2r.com/uploads/7/5/7/6/7576120/reef_condition_report_2016.pdf

11. The Planning Department requests that the project sponsors consider developing water quality and benthic monitoring plans in coordination with the University of Hawaii and/or locally-based expert groups. Previous beach restoration projects have been criticized for a perceived lack of independent or impartial monitoring. There is an opportunity to draw upon a wealth of locally based expertise from groups such as the Hui O Ka Wai Ola, West Maui Ridge to Reef Initiative, the Maui Nui Marine Resource Council, and the Nature Conservancy. It may even be possible for these groups to be engaged in the implementation of the pre- and post-construction monitoring.

Thank you for your cooperation. Should you need clarification on the above comments, please contact Coastal Resources Planner James Buika or Current Planning Supervisor Jeffrey Dack at james.buika@mauicounty.gov, jeffrey.dack@mauicounty.gov, or at (808) 270-8205.

Sincerely,

MICHELE MCLEAN, AICP
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator (PDF)
Jeffrey P. Dack, Current Planning Supervisor (PDF)
James A. Buika, Coastal Resources Planner (PDF)
Tara Miller Owens, U.H. Sea Grant Extension Program (PDF)
Sam Lemmo, Department of Land and Natural Resources-Office of Conservation and Coastal Lands (PDF)
Chris Conger, Sea Engineering, Inc. (PDF)
Wesley Crile, U.H. Sea Grant Extension Program (PDF)
Project File

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DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
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POST OFFICE BOX 621
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June 8, 2021

Ms. Michele McLean, AICP
Planning Director
County of Maui Department of Planning
One Main Plaza
2200 Main Street, Suite 315
Wailuku, Maui, Hawaii 96793

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mrs. McLean,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Thank you for collaborating with the DLNR-OCCL.

2. Additional mitigation actions are discussed below.

3. Community engagement has been an ongoing process with project development and the environmental review efforts. Community feedback has been reviewed, and incorporated and utilized to improve the proposed project, where appropriate.

4. The project team expects to the engage the Maui Planning Commission during the permit process.

5. Thank you for your support and your positive lessons learned from coastal projects on the island. We agree, the proposed project is a mid-term project that represents one step on a long and continuous journey of sea-level rise adaptation.

6. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.

- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

The proposed beach restoration is a single project that can be completed in a reasonable period of time and has negligible cumulative impacts. The County of Maui has suggested that five (5) additional projects should be completed as part of the proposed beach restoration:

1) Removal of temporary erosion control, dune restoration, relocation of the boardwalk, evaluation of erosion mitigation alternatives, and retreat of habitable and non-habitable structures at the Hyatt Regency Maui
2) Relocation of the north building at the Kā'anapali Beach Hotel
3) Relocation of the pool at the Sheraton Kā'anapali

4) Relocation of the boardwalk at the Kā‘anapali Ali‘i
5) Development of a coastal dune and vegetation management plan for the full length of Kā‘anapali Beach.

The desire to address these issues and explore other alternatives is understandable, such as managed retreat and dune restoration. However, the additional proposed projects would significantly expand the scope of the proposed beach restoration project and would require substantial redevelopment of the entire length of the Kā‘anapali shoreline. Expanding the scope of the proposed beach restoration project to this extent is unreasonable, particularly for the requested retreat and relocation activities, as it would increase the assessment of cumulative impacts many times over, extend the time scale for planning by decades, and preclude DLNR from fulfilling our nearer-term responsibility and obligation to conserve and enhance beach resources and shoreline public access. These additional proposed projects would severely limit State and private party capacity to conduct beach restoration that can be effective as a near to mid-term hazard mitigation and adaption action.

Your comments have helped us improve the discussion of managed retreat and how it might be applied to the coastline in Kā‘anapali. It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kaanapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

7. DRAFT West Maui Community Plan

Thank you for providing the draft copy of the West Maui Community Plan. It is encouraging to note that Maui is progressively working to accommodate sea-level rise impacts in the future.

8. Required County of Maui Permits

We understand that a Special Management Area permit and a Shoreline Setback Variance will be needed for the project.

9. Dune and Vegetation Management Plan

The proposed beach restoration project is a single nature-based beach restoration project that can be completed in a reasonable period of time and has negligible cumulative impacts. The County of Maui has suggested that a dune and vegetation management plan be added to the proposed project's scope.

A dune and vegetative management plan would be of significant benefit to the beach and backshore improvements. Dune systems provide critical coastal hazard mitigation services for backshore development; habitat for coastal species; and sand resources for active beaches during erosional events. When combined with vegetation plans, they can provide improved services for a range of resources, improving both the natural environment and the safety of the built environment.

Though a dune and vegetation management plan would benefit the region, and would be supported by the DLNR, it is currently beyond the scope of the proposed project and beyond our present capabilities

10. Water Quality and Reef Ecosystem Evaluation

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will build upon that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data

sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

The Best Management Practices Plan, Section 7.2.5 contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

11. Water Quality and Reef Ecosystem Monitoring

As mentioned above, additional monitoring efforts for the reef ecosystem and water quality have been added to Section 7.

Resource restoration along our coastlines is an important goal that benefits all West Maui residents. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai‘i 96850

In Reply Refer To:
01EPIF00-2020-CPA-0025

October 04, 2020

Christopher Conger, Coastal Scientist
Sea Engineering
41-305 Kalanianaole Highway
Waimanalo, HI 96795

Subject: Comments on the Draft Environmental Impact Statement (DEIS) for the Kaanapali Beach Restoration and Berm Enhancement Project, Island of Maui

Dear Mr. Conger:

The U.S. Fish and Wildlife Service (Service) has received the State of Hawaii, Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands' (OCCL) request for review and comment on the Draft Environmental Impact Statement for the proposed Kaanapali Beach Restoration and Berm Enhancement Project, Island of Maui. The applicant, the State of Hawaii DLNR OCCL, is proposing measures to address erosion along the shoreline between Hanakaoo Beach Park and Hanakaoo Point, including berm enhancement and dredging for sand nourishment. The actions proposed will require a Department of the Army Permit (Section 10 and Section 404), which will then require consultations from our agency under the provisions of the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 et seq.; 48 Stat. 401], as amended (FWCA); the Clean Water Act of 1977 [33 USC 1251 et seq.; 91 Stat. 1566], the Endangered Species Act of 1973 [16 U.S.C. 1531 et seq.; 87 Stat. 884], as amended (ESA); the Rivers and Harbors Act of 1899 [33 U.S.C. 403 et seq.], as amended; and other authorities mandating the Service's review and recommendations to conserve trust resources.

At this time, the Service is providing comments on the content of the Draft Environmental Impact Statement (DEIS). The Service appreciates being included in early planning for this project as it may make the coordination for the future consultations more efficient, because the resource agencies will have had a chance to contribute and address any concerns before the project reaches the Department of Army permitting stage.

Purpose and Need

The purpose of the project is to devise a regional approach to provide erosion mitigation for a long section of the Kaanapali coastline. Seasonal erosion, coupled with sea level rise, has caused shoreline recession, beach narrowing, reduction in coastal access, and damage to shoreline infrastructure and amenities. Beach restoration is proposed for the section of beach between Hanakaoo Beach Park and Hanakaoo Point, and beach berm enhancement is proposed for the section of beach between Hanakaoo Point and Puu Kekaa. In consultation with the Kaanapali Operations Association, Inc., the State of Hawaii DLNR OCCL plans to restore, rehabilitate and preserve the sandy beach by nourishing it with 75,000 cubic yards (cy) of beach quality sand transported from an offshore borrow area. The project would raise the elevation of the beach berms as well as widen the dry beach. Construction activities would require the use of crane barges, clamshell dredge methods, sand transport barges, and tugboats. Both berm enhancement areas would potentially provide a buffer during extreme erosion events. The beach sand nourishment efforts would provide a temporary offset to shoreline loss for approximately 20 years and would have to be performed again in the future.

General comments and recommendations for the DEIS

The Service has reviewed the DEIS and provides the following comments as suggestions for inclusion, since this information will be needed for multiple consultations and permits identified by Sea Engineering as necessary for construction approval.

1) Additional studies recommended for the DEIS. These include but are not limited to:
    a) Additional sand study focusing on infauna;
    b) Additional sand study identifying any contaminants present and potential for re- entrainment;
    c) Intertidal survey;
    d) Marine community resource survey;
    e) Benthic survey and reef structure delineation;
    f) Shoreline terrestrial flora and fauna survey;

2) The DEIS appears to lack a clear indication of what the Preferred Alternatives are. There seem to be three main project components: 1) sand recovery; 2) beach restoration or nourishment; and 3) berm enhancement. Because the impacts are overlapping and cumulative, they are being treated as a single project so that the overall impacts can all be considered and evaluated. After discussion with Sea Engineering in late September 2020, it appears that there are Preferred Alternatives moving forward (i.e. clamshell dredge vs. suction dredge, sand barge locations, sand transport methods, not using de-watering sites, etc.) that should be updated for the next version of this document.

3) The DEIS should propose a range of scenarios to which impacts to natural resources can be evaluated. Each action alternative should also include or propose how the sand would be transported (hydraulically, mechanically, etc.) from the borrow site all the way through to the dewatering site or the receiving site (i.e. littoral cell). Each type of dredge method has a different impact to resources and water quality. Each suite of alternative actions (sand recovery, beach restoration and nourishment, and berm enhancement) should be presented to together for evaluation. For example, if one scenario is to have a clamshell dredge remove sand from the borrow site via tug and barge, follow a pre-determined route to the barge anchoring site, offload the sand onto trucks, and then take a pre-determined route to the offload site, that entire scenario should be fully described in one place within the document. That would include installation of jack up barges, avoidance measures, etc. The current document contains scattered descriptions of a large number of potential individual actions, but does not connect them into proposed scenarios that may actually occur. Those full scenarios from start to finish are what are evaluated for impacts (of any type) and will help to determine the unavoidable loss, economic impact, recreational impact, etc.

4) The DEIS would benefit by producing a series of benthic habitat maps within the proposed project area and a buffer area around the perimeter on both the seaward and landward sides. Identifying the current habitat types and the organisms that live there will be needed for evaluating both the direct and indirect impacts to resources and water quality, as well as the possibility that sand will be retained, or not, after placement.

5) It is not clear if the DEIS has identified the baseline classification of water quality by the State of Hawaii 2014 Department of Health Water Quality standards. The DEIS should identify what measures will be taken to ensure that this rating remains the same after the sand placement and the possible increase in use of the shoreline.

6) A discussion on unavoidable environmental impacts based on the overall Preferred Alternative scenario selected. Identification of the unavoidable losses will guide the compensatory mitigation conversation, if necessary.

7) Comment on Figures and Tables in Section 1. The current figures and tables are labeled 0-x. If they are labeled correctly it was hard to follow the text as it referred to Figures 1-x, etc.

8) Section 1.5 – This section mentions a fringing reef in the HLC but does not provide a map of the location or a shapefile/boundary indicating it's estimated position in relation to the proposed project actions. The next revision of the DEIS should include such a map.

9) Section 1.5 – This section shows engineering schematics for approximate single anchor point placements for each deck barge/trestle system and approximate hydraulic pipeline delivery routes. More information is needed, especially for planning any resource impact assessments. For example, the document should provide georeferenced boxes that show an approximate area where each anchor could be placed. The anchor could be attached anywhere in that box in real life when the contractor shows up for work. This also allows for more flexibility in real work conditions when the construction is occurring. The area will already have been approved. The same approach would apply to hydraulic pipeline delivery routes, trestle barge locations, jack up barge locations, etc.

10) To follow on to the previous comments, there is a deficiency in overlaying the project actions with additional information. For example, Figure 2-22 shows a set of beach profiles for the littoral cells. No information is given on the figure as to which year this occurred or what date the satellite imagery or aerial photo is from. That information is important because this is a shoreline erosion improvement project in a rapidly changing area. The proposed project footprints are also not overlaid on the image.

11) Section 2.1.9, Sand Characteristics – Page 76 describes composite beach samples and sediment samples that were taken within the littoral cells. In that section, it is not stated when this occurred or by whom the samples were taken; that information would also apply to Table 2-6 and Figure 2-40. The information is missing and there is no named study or referenced study provided. This occurs frequently through the document.

12) In the same section (Section 2), the author mentions a 2002 sand study on Oahu for comparison of effective sand density and grain size. Is this the most current science? Is there a similar study available for Maui? There may not be, and if there is not, that should be noted so that use of data from a study nearly 20 years old is justified.

13) Section 7, Mitigation and Monitoring. The Best Management Practices (BMPs) listed here provide options for Avoidance and Minimization, not Mitigation. Our agency will also be providing a list of BMPs to be considered.

14) Section 7.2- Post-Construction Monitoring. Has there been any discussion on evaluating the coral reef resources after the construction is completed, especially in areas identified as sensitive resources by DLNR/DAR? Or how or if the input from the Wahikuli Stream has an effect on the deposited sand's erosion rate?

15) Section 10 lists the References for the content of the document. These were rarely cited in the DEIS. There were occasions where facts were mentioned, or previous studies or observations were used to make a point, but the citation was noticeably absent. The list provided seems potentially sufficient to support the information in the DEIS, but the document does not adequately reflect what information each reference verifies. For example, in Section 1.3 on page 6, the second paragraph casually mentions that a few previous feasibility studies took place, but provides no indication of what they were.

Comments on the Baseline Assessment - Appendix B

The "Baseline Assessment of Marine Water Chemistry and Marine Biotic Communities, Kaanapali Sand Restoration Project, West Maui, Hawaii" provided by Marine Research Consultants, Inc. is not sufficient to determine impacts from the proposed project alternatives and would not be considered a baseline marine resource survey. Before going forward with any additional marine resource assessments, Sea Engineering should ensure that all of the information that is needed for consultations and technical assistance is included in the survey methodology and reporting products.

An acceptable assessment will clearly identify all of the proposed project footprints and their associated action impact areas on a georeferenced map or group of maps for each "unit" of the shoreline identified in the DEIS (Kaanapali Littoral Cell, Hanakaoo Littoral Cell, etc.). The cultural resources reports include some of the shapefiles for the project footprints, and their reporting is in relation to those areas. A similar approach should be followed for the natural resources evaluation as well. The areas to include would be, but are not limited to: all possible dredge areas, all possible fill areas, barge routes, barge placement areas, anchor points, temporary structures in the water, submerged pipelines and their routes, staging areas for equipment, potential dewatering sites, etc. After those areas have all been identified, the survey plan for water quality, quantification of benthic substrate composition, and quantification of marine resources (flora and fauna) should be planned. This will include the sand borrow area and the shoreline intertidal zone, the area where most of the fill will occur. Survey results should be presented in relation to these areas, both spatially and summarized in text. In most cases the information should be summarized by each alternative so that the overall impact of each can be compared. If compensatory mitigation is eventually required, the information for affected resources will thus already be quantified by alternative.

Data collection should be georeferenced and quantitative, so that it can qualify as a baseline for comparison in the future at any possible required time points. That may be pre-construction, during construction, post-construction, or at multiple points on the timeline. Currently, there is no quantitative information being reported except for water quality parameters. The water quality information is sufficient to meet the Department of Health standards but there is no indication

that any of the measurements occurred in the proposed project footprint, and there were no samples collected in the sand borrow area. There is no value to be had from Figure 2, which shows three straight yellow lines drawn from the shore seaward, with no reference to the project information.

For the shoreline intertidal areas, there needs to be a determination of current benthic substrate composition for the footprint that will be filled, and a surrounding buffer area where the sand may shift. If the areas are all sand, the metrics used in the survey should show that result.

The State of Hawaii, Division of Aquatic Resources has shown concern for a fringing reef that may be located directly adjacent to one of the barge placement areas. An evaluation of these resources was not included in the baseline assessment. Assessment of known resources is important in this proposed project, as it has been mentioned in discussions that full-depth silt curtains will not be used as a Best Management Practice to minimize turbidity or the accidental loss of dredge material from the transport barges or clamshell dredge. The rationale for that decision needs to be included in the DEIS.

The Service appreciates the opportunity provide comments on the development of the DEIS for proposed Kaanapali Beach Restoration and Berm Enhancement Project. In addition, there are three attachments to this letter on recommendations for avoidance and minimization of natural resources that may occur in the project areas. If you have questions regarding these comments, please contact Marine Biologist Nadiera Sukhraj (Nadiera_McCarthy@fws.gov) at 808-792-9400. When referring to this correspondence, please include this reference number: 01EPIF00-2020-CPA-0025.

Sincerely,

Gregory A. Koob
Assistant Field Supervisor

Enclosures
Best Management Practices for Work in the Aquatic Environment
Animal Avoidance and Minimization Measures
Plant Avoidance and Minimization Measures

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 10, 2021

Gregory Koob, Assistant Field Supervisor
US Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

REF: 01EPIF00-2020-CPA-0025

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kāʻanapali Beach Restoration and Berm Enhancement Project

Dear Mr. Koob,

Thank you for your letter regarding the Kāʻanapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. USFWS suggests additional studies be completed for the EIS.

Based on community and agency feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanakaʻōʻō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will build upon that existing data set, providing a robust history for the local reef ecology pre- and post-project.

The USFWS recommended additional studies included:

a. Additional sand study focusing on infauna;
    - It is expected that the benthic infaunal community structure of the Sand Recovery Area is similar to other locations in sandy coastal areas of Hawaiʻi. The typical community

in these environments consists of nematodes, (roundworms, phylum Nematoda), oligochaete worms (earthworm relatives, phylum Annelida, subclass Oligochaeta), copepods (tiny crustaceans, phylum Arthropoda), echinoderms (phylum Echinodermata), and mollusks (phylum Mollusca) (Bailey-Brock and Krause, 2008).

- Investigations done as part of the Waikīkī Sand Replenishment Project in 2012 included an evaluation of changes in the benthic infaunal communities before and after sand removal. Results were inconclusive and showed a much larger change in the infaunal community structure through time at the control sites than at the impact sites (Forsman, et al, 2012).
- A white paper (Rosov, et al, 2016) produced by the American Shore and Beach Preservation Society (ASBPA) compiles literature related to infaunal impacts from beach restoration and offshore sand recovery efforts. There were several trends to the monitoring and research documents they reviewed:
  - Sand recovery areas oriented with the dominant current direction produce the smallest changes to regional sand fields and have the fastest ecological recovery rates.
  - Shallow recovery areas alter the regional sand fields the least and have the fastest ecological recovery rates.
  - The proposed sand recovery area and depth of recovery both meet these requirements for fastest ecologic recovery rates.
- Based on this local infauna study and other domestic beach nourishment studies, no additional studies or mitigation are proposed. Negligible impacts are anticipated to infauna based on the observed rapid recovery of the infaunal community as part of a similar project in Hawaiian nearshore waters.
- Additional discussion can be found in Section 2.1.11 Marine Biology.

b. Additional sand study identifying any contaminants present and potential for re-entrainment;
   - The sand source is not expected to have either hazardous materials or contamination within the sediment. There have not been significant environmental contamination events at the sand source or adjacent to it. There are no environmental remediation or clean up actions at or adjacent to the sand source. There are also no significant point sources of contamination adjacent to the sand recovery area. With no environmental contamination events, sources of contamination, or remediation sites adjacent to the sand recovery area, there is no reason to suspect the sand recovered from the Sand Recovery Area contains contaminants.

c. Intertidal survey;
   - A June 2003 beach nourishment project at Kanai A Nalu Condominiums in Maalaea (Norcross, et. al., 2004) included before, during, and after project marine monitoring. This monitoring effort included an assessment of sand crabs. From September 2002 to January 2003, sand crab holes averaged 2 to 3 per square meter. After January, the beach was in an eroded state and no sand crab holes were found. Two days after the beach nourishment project, sand crab holes began to reappear. By September (3 months after nourishment), sand crab populations had recovered to 2 to 3 per square meter.
   - A 2016 ASBPA white paper also addresses ecological recovery in the beach face, following beach restoration efforts. Key findings are:

    - Use of compatible sand decreases recovery time in the nearshore and beach areas, and promotes recovery of pre-existing communities.
    - Beach restoration efforts in non-spring seasons reduces recovery time in the nearshore and beach areas.
  - The proposed beach restoration effort meets the suggested criteria and has many similarities to the Kanai A Nalu project. Though short-term impacts are expected to the beach face, intertidal community, no mid-term or long-term impacts are anticipated, and no additional study is recommended at this time.
  - Additional discussion can be found in Section 2.1.11 Marine Biology.

d. Marine community resource survey;
  - Additional resource investigation and documentation was completed and can be found in Section 2.1.11 Marine Biology.

e. Benthic survey and reef structure delineation;
  - Additional resource investigation and documentation was completed and can be found in Section 2.1.11 Marine Biology.

f. Shoreline terrestrial flora and fauna survey.
  - Additional vegetation investigation and documentation was completed and can be found in Section 2.1.13 Coastal Flora and Fauna.
  - The vegetation map for the coastline is presented as Figure 2-70. There is negligible contact with existing coastal flora in the proposed project area.
  - The proposed project is anticipated to have a negligible impact on coastal, terrestrial flora and fauna due to its location atop the existing sand beach. Prior to beach restoration activities, a coastal bird survey and an endangered vegetation survey will both be completed along the proposed project area. This is included in Section 8 Unresolved Issues.
  - Currently, it is not permissible through State law to plant or cultivate vegetation makai of the certified shoreline location, as defined in HRS § 205A. Both HRS § 115 and HRS § 183C have clear language protecting beach transit corridors with respect to coastal vegetation. Since all sand placement in the proposed beach restoration project is makai of the shoreline location, no post-restoration planting is proposed.

Additional discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

2. Clearly indicate the Preferred Alternative in the EIS

The EIS has been revised to more clearly discuss the preferred alternative. The preferred alternative is presented first in the Executive Summary, then described in greater detail in Section 1.5 Proposed Action.

The preferred alternative is then discussed in terms of methodology, schedule, and estimated costs, in Section 1.6 Beach Restoration Methodology – Schedule – Estimated Costs.

Section 1.6.1 Primary Sand Recovery and Transfer Methodology discusses sand recovery using a clamshell dredge and multiple barges, delivery to shore by barge, and delivery along the shoreline with trucks. After delivery along the shoreline, the preferred alternative includes placement of 50,000 cy of sand in the Hanakaʻōʻō Littoral Cell as a beach restoration effort, and placement of 25,000 cy of sand in two locations in the Kāʻanapali Littoral Cell as a berm enhancement effort.

Section 1.6.5 Project Sequence describes the workflow for the preferred alternative.

Section 2 Description of the Existing Environment, Potential Impacts of the Proposed Action, and Mitigation Measures discussed these issues in relation to the preferred alternative and includes additional details for the preferred alternative.

3. Propose a range of scenarios for evaluating impacts to natural resources

The EIS is focused on the preferred alternative presented in the response to comment #2. The preferred alternative has been developed from concept designs to roughly 60% plans. This preferred alternative, or scenario, is evaluated in detail in Section 2 Description of the Existing Environment, Potential Impacts of the Proposed Action, and Mitigation Measures.

Additional alternatives, including Section 5.1.1 Alternative Sand Sources, Section 5.3.1 Temporary Shore Protection (Alternative 1), Section 5.3.2 Permanent Buried Shore Protection (Alternative 2), Section 5.3.3 Vertical Accommodation (Alternative 3), and Section 5.3.4 Managed Retreat (Alternative 4) were presented and discussed in the EIS.

Section 5.3.5 Alternatives Summary presents a comprehensive table detailing the potential positive and potential negative impacts of the preferred alternative and Alternatives 1 through 4.

Section 6 Summary of Adverse Environmental Effects of the Preferred Alternative Which Cannot be Avoided discusses the preferred alternative, or scenario.

Section 7 Mitigation and Monitoring has been prepared based on the preferred alternative.

Section 8 Unresolved Issues deals with potential issues that may evolve through implementation of the preferred alternative.

Additional scenarios, of which there are many combinations, are not addressed in the EIS.

4. Produce a series of benthic habitat maps

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

5. The DEIS should identify what measure will be taken to ensure the water quality rating remains the same

As part of the permit process, a Department of Health (DOH) Water Quality Certification (WQC) application will be submitted for processing and approval prior to implementation of the project. DOH will review the proposed project's Best Management Practices Plan (Section 7 of the EIS) for appropriate and effective management techniques. The final requirements will not be confirmed until after the WQC application process is complete.

6. Include a discussion on unavoidable environmental impacts

Discussion of potential impacts is detailed in Section 2. Unresolved issues are discussed in Section 8. A summary of unavoidable impacts can be found in Section 6. A comprehensive summary of potential impacts for the preferred alternative compared to other alternatives is presented in Section 5. Section 5 also includes discussion of which potential impacts can be avoided, need to be mitigated, or are likely unavoidable.

7. Correct figure and table numbering in Section 1

Labels for figures and tables in Section 1 have been corrected.

8. Section 1.5 discusses a fringing reef in the HLC but does not provide a map

Additional maps showing the nearshore resources and the proposed project's location are included in the FEIS.

9. Section 1.5 discussion on anchoring needs more information

Additional discussion and information have been added to discuss anchor locations and sand transfer sites. Diver verification will be required prior to placement of materials on the seafloor. The proposed project description includes discussion that materials may only be placed on sandy seafloor. The material placement locations have been verified as sandy seafloor.

10. Figures need project outlines

Project outlines have been added to resource maps within the EIS and supporting documents.

11. Named studies for EIS data and discussion

The EIS is the reporting venue for internal Sea Engineering, Inc. (SEI), studies completed for the evaluation and depiction of the proposed project. Project related work by SEI has been included in the EIS without reference, as the EIS is the reference.

12. Reference to the 2002 sand study

Studies presented in the EIS are a compilation of efforts that are topical to the project. Not all are recent or from within the project area; however, they are informative to the review process for the proposed project as part of an environmental disclosure document.

13. USFWS will provide a list of BMPs to be considered

Specific best management practices were recommended. Unless stated otherwise, below, the recommendations have been added to the EIS in Section 7 During Construction Mitigation and Monitoring.

a. Vehicles on and modification of the beach environment

Project schedule is based on seasonal ocean conditions. October through early December are statistically the months with safest conditions for conducting the proposed marine and coastal project. In an effort to maximize public health, welfare, and safety, as well as the safety and security of the construction team, the project has been scheduled for these months.

The proposed schedule currently overlaps with certain key dates:

- Hawaiian seabirds may traverse the project area at night during the breeding, nesting and fledging seasons (March 1 to December 15).
- Green sea turtles may nest on any sandy beach area in the Pacific Islands. Hawksbill sea turtles exhibit a wide tolerance for nesting substrate (ranging from sandy beach to crushed coral) with nests typically placed under vegetation. Both species exhibit strong nesting site fidelity. Nesting occurs on beaches from May through September, peaking in June and July, with hatchlings emerging through November and December.
- Blackburn's sphinx moth, during the wettest portion of the year (usually November-April or several weeks after a significant rain).

Creation of new areas of standing water is not anticipated for the proposed project, thus there is not expected to be any new attractions for Hawaiian waterbirds associated with the proposed project.

Pre-construction consultation with the Services will be completed prior to site mobilization. The proposed BMPs (currently in the EIS) combined with permit requirements and findings during the pre-construction consultation will be implemented during construction.

b. Avoid nighttime work

The project schedule requires some efforts to begin before first light and other efforts to extend after last light each day. In an effort to minimize potential impacts to native species, all lighting shall be shielded or taped, and reduced to the minimum level feasible during nighttime operations.

c. Avoid scheduling dredging/filling work during sea turtle nesting and hatching periods.

Project schedule is based on seasonal ocean conditions. October through early December are statistically the months with safest conditions for conducting the proposed marine and coastal project. In an effort to maximize public health, welfare, and safety, as well as the safety and security of the construction team, the project has been scheduled for these months.

Additional BMPs shall be employed to avoid impact to sea turtle nests and hatchlings during this period, including constant monitoring of the beach and ocean during beach restoration activities.

Prior to construction, consultation with the Services will be completed to obtain the latest information on sea turtle activity, including nesting, in the area and to determine if additional BMPs (beyond those listed in the EIS) shall be employed to avoid impact to sea turtle nests and hatchlings during this period. Efforts will include constant monitoring of the beach and ocean during beach restoration activities.

d. Fueling project-related equipment adjacent to the aquatic environment

Some project related equipment will be water-borne and will require fueling in the marine environment. All marine fueling areas will include primary and secondary containment materials. Each vessel will have a spill control plan and a contingency plan for inclement weather.

14. Discussion on evaluation of coral reef resources

Appendix C, the marine environment addendum of the FEIS, proposes a post-construction monitoring plan. This monitoring plan includes pre and post construction efforts and ties into existing monitoring data. There are currently two reef ecosystem monitoring stations offshore of Hanakaʻōʻō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will build upon that existing data set, providing a robust history for the local reef ecology pre- and post-project. These monitoring efforts include the reef ecology resources identified by the Division of Aquatic Resources.

Hāhākea Stream mouth, located on the north side of the Hanakaʻōʻō Beach Park is the only stream mouth to intersect the proposed project area. The proposed beach restoration project is intended to return the beach profile to conditions existing in the late 1980's. The stream mouth has been a stable feature on the coastline for the duration of the study period (1940's to current time), for the study that evaluated coastal dynamics in the region. Flood events at the stream mouth have resulted in temporary movement of sand from the beach makai of the stream mouth to the nearshore. Previous events have resulted in dramatic changes to the beach profile; however, they have recovered in weeks to months following the flood events. These events, as documented in the FEIS, have resulted in the release of turbid fresh water, filled with material from the hinterland, into the marine environment. The stream mouth and previous events are discussed in Section 2.1.10 Water Quality.

15. Citations within the EIS

The document and its references adhere to the guidelines for environmental review documents, as presented in State law, rules, and guidance documents.

Comments on the Baseline Assessment – Appendix B

The Baseline Assessment was intended as a general description of the marine environment and water quality. Additional work, completed as part of the preferred alternative development and in response to comments and suggestions from the agencies and public, is included in Appendix C – Marine Biology and Water Quality (Marine Research Consultants, LLC).

Additional investigation, modeling, map products, and assessments were also completed by SEI, and are included in the sections mentioned in the above responses.

The proposed project's footprint has been identified in relation to each of the marine and coastal resources. Appendix C evaluates and discusses these resources based on their location relative to the proposed project's footprint. These areas include the proposed sand recovery area, proposed anchor placement sites, proposed sand transfer sites, proposed berm enhancement areas, and proposed beach restoration area (terrestrial and marine footprint). Proposed transit paths, on the water and on the beach, are also shown as references.

Appendix C and the FEIS discuss each of the project areas, describing existing resources and detailing potential impacts from the proposed project. Data is georeferenced and quantitative. Additional figures showing the location of specific samples have been added to the FEIS and Appendix C.

Silt curtains are proposed in the work plan and the BMPP. They are proposed for the beach restoration area, where sand will be placed directly in the water. They are not proposed for the berm enhancement areas, where sand will be placed high on the beach profile above the swash zone. They are also not proposed for the sand recovery area. Detailed discussion on projected sand losses during recovery operations, including a map of potential sediment dispersal (Figure 2-67), is included in Section 2.1.11 Marine Biology. No silt curtains are proposed for the sand recovery site, based on the depth of the water, nearshore currents, and the minor sediment discharge that is expected for the operation.

The proposed monitoring efforts (water quality, beach dynamics, and marine ecology) are designed to accurately observe and measure potential impacts from the proposed project.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

October 7, 2020

Mr. Chris Conger
Sea Engineering, Makai Research Pier
41-305 Kalanianaole Highway, Waimanalo, HI 96795
Email: ccongr@seaengineering.com
CC: Sam.j.lemmo@hawaii.gov

SUBJECT: Ka'anapali Beach Restoration and Berm Enhancement Draft EIS

Aloha Chris:

Thank you for the opportunity to comment on the proposed beach restoration project. We support the project with several modifications.

First, please clarify if a grading permit would be obtained from the County of Maui.

Second, please note that the project will occur within the Hawaiian Islands Humpback Whale National Marine Sanctuary and is subject to the National Marine Sanctuaries Act. You may want to seek input from the Sanctuary Advisor Council.

Third, please identify the main erosion hot spots that would be remedied by the proposed addition of sand. Please indicate what other alternative remedies have been truly considered and their feasibility. For instance, concrete sidewalks are infrastructure that can be moved as part of a managed retreat strategy. Sidewalks can be reconfigured, repositioned, and/or redesigned using alternative materials to avoid seasonal erosion and respond to long-term chronic erosion trends. The discussion of managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes to avoid coastal hazards, including seasonal hazards. It should not be limited to an all or nothing retreat strategy.

Fourth, ***sand is a public resource***. It is held in trust by the State Department of Land and Natural Resources as an asset for the benefit of present and future citizens. Funding for the project includes government dollars, a portion of which may be derived from tax dollars. Yet, the primary recipients of the benefits of this public expenditure and use of public trust assets are private companies (i.e., resorts and hoteliers).

We recognize that the resorts and hotels generate substantial tax revenue, pay considerable taxes and fees, employ a large number of residents. and engage many smaller local companies that create jobs and trickle-down benefits. We also acknowledge that Ka'anapali is a publicly accessible beach. Nonetheless, the benefits of this important beach restoration project accrue mostly to a select few private oceanfront landowners with for-profit commercial interests.

To compensate for the project's impact on public trust assets, ***we strongly recommend*** that a portion of the clean sand extracted be set aside and dedicated to small scale beach restoration projects in Maui County.

This compensatory mitigation would include dedicating a percentage of the sand taken from offshore reservoirs by your client for use by other private parties and non-profit organizations that obtain government approval to improve publicly accessible shoreline areas. Part of the sand this project extracts should be made available for dune restoration, beach replenishment, vegetated beach berms, and other 'soft' erosion response measures at other sites throughout Maui in the future.

As you know, the State will only approve the use of clean, coarse sand for beach/dune restoration and soft approaches to erosion crisis. Yet, clean sand for such soft measures is extremely limited in supply on the Island of Maui due to the enactment of a moratorium on the mining or extraction of inland dune sand from central Maui. Without a viable sand source, private oceanfront properties that want to improve publicly accessible beaches cannot do so and are incentivized to armor the shore – often to the public's detriment.

Smaller projects do not have the capacity to extract sand from offshore and can't afford the measures involved with the Ka'anapali Beach Restoration which places them in an unfair and unequitable position. The Coastal Zone Management Act, HRS 205A-2(c) allows for *compensatory mitigation* in relationship to recreational resources. We encourage the Ka'anapali Operators Association to be a good neighbor and spread the golden sand bounty to other, equally well-deserving beneficiaries along Maui's eroding shores.

Thank you for your time and consideration. Please feel free to contact me by phone (808) 344-1595 or email at Thorneabbott@yahoo.com if you would like to discuss this matter in further detail.

Mahalo!

Thorne Abbott
117 Loi Pohaku Place
Wailuku, HI 96793

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GOVERNOR OF HAWAI'I

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June 8, 2021

Thorne Abbott
117 Loi Pohaku Place
Wailuku, Hawaii 96793

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Abbott,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Grading Permit Requirement

Communication with the County of Maui Planning Department has not indicated that a County of Maui grading permit would be required for the project. The project beach restoration efforts are located entirely on State submerged lands in the Resource Subzone of the Conservation District.

2. Hawaiian Islands Humpback Whale National Marine Sanctuary

Engagement of the Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council will be accomplished during the permit process.

3. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.

- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

Your comments have helped us improve the discussion of managed retreat and how it might be applied to the coastline in Kā'anapali. It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

4. Sand is a public resource

The proposed project is a nature-based public resource restoration effort. All restoration materials (sand) are coming from and being delivered to State submerged lands. All efforts are within the Conservation District. Though there are private parcels adjacent to the proposed project, it is intended to restore the public trust beach. At this point, evaluation of the project through the EIS process has not indicated that a mitigation effort is required for stewardship of the public beach resource by the agency tasked with its care, protection, and conservation – the DLNR.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

On Oct 7, 2020, at 3:47 PM, Michelei Kahae <micheleik@yahoo.com> wrote:

Aloha,

I’m writing in opposition to sand pumping at Ka’anapali. My children grew up on the beach’s of Hanakao’o to Pu’u Keka’a. They learned to dive at a young age for Puka shells. And fish as they got older. They learned to throw net and cast fishing poles. We paddle along this stretch of beach. This area is important for my Ohana’s health! Mind, body and food on our tables.

This project will have devastating impacts to offshore eco-systems. The reality is climate change is happening at an accelerated rate. The State must focus on managed retreat policy instead of temporary fixes that are extremely costly and will destroy the eco-system. This project is simply a “temporary fix”. Please DO NOT play Mother Nature!

Mahalo,

Michelei Tancayo

808-357-7124

Sent from my iPhone

DAVID Y. IGE
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June 8, 2021

Michelei Tancayo
micheleik@yahoo.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Michelei Tancayo,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Potential Environmental Impacts
The EIS addresses physical resources and cultural and recreational activities, as well as anticipated impacts to each from the proposed project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Beach restoration projects, such as the proposed project, can provide environmental and economic benefits to the region. Beaches provide erosion protection to the coastal plain and terrestrial lands. Moreover, wider and healthier beaches dramatically improve access along the shoreline and recreational uses that depend on the sand beach.

Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kāʻanapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kāʻanapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kāʻanapali maintain its beautiful beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited

to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

October 5, 2020

Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, HI 96813

SUBJECT: **DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED KA'ANAPALI BEACH RESTORATION AND BERM ENHANCEMENT PROJECT**
TMKs: Seaward of (2) 4-4-013:007; (2) 4-4-013:006; (2) 4-4-013:008; (2) 4-4-013:013; (2) 4-4-013:002; (2) 4-4-013:001; (2) 4-4-008:022; (2) 4-4-008:019; (2) 4-4-008:001; (2) 4-4-008:002; (2) 4-4-008:003; (2) 4-4-008:005

To Whom It May Concern:

Mahalo for the opportunity to provide comments pertaining to the Draft Environmental Impact Statement (DEIS) related to a proposed beach restoration for a section of the Kaʻanapali Beach between Hanakaoʻo Beach and Hanakaoʻo Point.

The consultant, Sea Engineering, Inc., reported that the intention is to raise the elevation of the dry beach by 3.5 feet to enhance the beach berm between Hanakaoʻo Point and Puʻu Kekaʻa, which will require approximately 25,000 cubic yards of sand. An additional 50,000 cubic yards of sand is needed to restore the beach to its approximate size in 1988, thereby, widening the dry beach by between 41 and 78 feet. It was explained that these sands would be recovered from an 8.5-acre sand deposit, located approximately 150 feet offshore of Puʻu Kekaʻa in 28 to 56 feet water depth, using a moored crane barge equipped with a clamshell bucket.

The crane barge would lift sand from the seafloor and place it onto two 1,500 cubic yard capacity barges, which would rotate between the sand deposit and two off-loading sites. After a deck barge is filled, it is then towed to the off-loading site, that is to be moored to an elevated trestle or floating bridge to then transfer sand to shore. Finally, land equipment would move sand from the shoreline to the desired area so it can be spread along the shore and berm.

The DEIS also describes the physical environment, socio-economic environment, public services, and infrastructure. This report further includes regulatory laws and regulations, as well as land uses. Additionally, this report outlines alternatives to the proposed action and a summary of adverse environmental effects. Notably, the estimated cost of this proposed project is $11,125,000 and "the project lifespan is anticipated to be less than 30 years because the rate of erosion along Ka ʻanapali Beach has accelerated," likely correlated to rising regional sea-level. The consultant further notes that, "the upper limit on the project lifespan would be approximately 20 years. Unpredictable extreme events such as hurricanes, Kona storms, and tsunamis could significantly affect the project's lifespan." Such occurrences have recently afflicted Kauaʻi in March 2020 when it experienced severe flooding associated with a Kona storm[1], and Hawaiʻi island was on tsunami watch after a massive earthquake during the same month[2].

While there are many potential project issues that directly affect marine activities, as well as ocean recreation and access, I'd like to focus on some of the socio-economic impacts, particularly those related to beach safety and American Medical Response (AMR), typically referred to ambulance service. There are incidents and reports of injury, or causes for concern, that occurred in the Kaʻanapali area within the past several years that imply AMR involvement.

On July 25, 2014 Hawaii News Now (HNN) reported that a 17-year old boy, Alex Spartz, a visitor from the mainland suffered severe injuries at a Kaʻanapali Beach while on vacation with his family.[3] The teen misjudged the timing of an incoming wave and landed head first in the sand. As a result, he suffered a traumatic spinal cord injury, fracturing his C5 vertebrae and severely bruising his spinal cord. HNN continued by saying, "This incident

comes shortly after Wendi Van Briesen, also an Arizona native, died after breaking her neck and shattering her vertebrae. Her accident happened the same day on a beach in Makena and was in the adjoining room next to Alex Spartz."

In a January 2015 Huffington Post article, it was reported that Kaʻanapali Beach is the third deadliest beach in Hawaiʻi[4]. "It found that a third of all SPIs (spinal cord injuries) in Hawaii happen in relatively rough ocean – when people are tossed by waves, body surfing or body boarding, or diving into the ocean. Seventy-eight percent of these ocean-related SPIs were sustained by visitors." Later that year, in a Department of Health – EMS & Injury Prevention Systems Branch – Injury Prevention and Control Section report[5], epidemiologist Dan Galanis illustrated there were 125 total drownings from 2005-2014 and 73% of those were suffered by non-residents, while snorkeling and swimming. The DEIS also references "The ocean surrounding Puʻu Kekaʻa, or Black Rock, is one of the most popular snorkel destinations on Maui." The consultant further describes popular surf spots – ideal for beginners and others – between Hanakaoʻo Point and Hanakaoʻo Beach Park.

In July 2019, the Maui News reported that Maui beaches lead the State in spinal injuries.[6] The opening statement reads (in part), "Seven of the top 15 spinal injury-prone beaches in Hawaii are located in Maui County…" Kaʻanapali tied with Hawaii island's Laaloa Beach and Oahu's Sandy Beach for 20 recorded injuries from 2009 to 2017. D. T. Fleming Beach was also included as one of the top beaches for injury.

In my former career, as an Ocean Safety Officer and Lieutenant, with my last assignment at D. T. Flemings Beach Park, I have gained first-hand experience and knowledge of the American Medical Response (AMR), as related to beach accidents and injuries, such as those above.

That being said, it is unfortunate to have recently learned that the Department of Health is contemplating budget cuts, up to 20-percent, as a result of the COVID-19 pandemic. Kapena Hill, Vice-President of the Maui County EMS, is quoted in an August article by Civil Beat[7], as saying, "None of this is temporary and I believe that this year is only the beginning." AMR's general manager was also cited as having said (the public) needs to go to the

Legislature and work to advocate for service, funding and upgrades. While each county utilizes AMR services differently, Maui County relies on AMR to provide a broad range of emergency response services, including air transport.

Last month, The Maui News reported Mayor Victorino set aside CARES Act funds for emergency medical services[8]. The article included that the Maui County Paramedics Association reported 20,668 emergency calls last year and call volume "increased 12-percent over the last five years, without any increase in budget or EMS staffing units…The absence of just one station would delay response time and coverage for other units, putting the severely injured and sick at greater risk…" Along that line, it is my hope that neither the Napili, nor the Lahaina Comprehensive Health Center AMR units is affected, especially since the next nearest hospital is the Maui Memorial Medical Center, 24 miles away.

While final decisions pertaining to the expressed budget cuts for AMR services is yet to be publicized, I would encourage the Department to further consider the secondary impacts of this project, especially those associated with AMR services. Although a greater, more expansive shoreline may be appealing to visitors and hotels along Kaʻanapali, the threat of harm or impairment is then amplified. The volume of spinal cord injuries, drownings, and incidence of emergency calls will likely escalate, especially in an area that is targeted for reduced services. Even though most nearshore and beach injuries is predominantly sustained by visitors, AMR services are also important to the local residents of West Maui. The anticipated amount of monies to be spent on this project could be otherwise invested in sustaining and expanding a fundamental healthcare service.

Should you have any questions, please contact me by email at Tamara.Paltin@mauicounty.us or by phone at (808) 270-5504.

Sincerely,

Tamara A. M. Paltin

TAMARA PALTIN
Councilmember

[1] https://www.washingtonpost.com/weather/2020/03/30/hawaii-kona-storm-kauai/
[2] https://www.hawaiitribune-herald.com/2020/03/24/hawaii-news/hawaii-on-tsunami-watch-after-massive-earthquake-off-russia/
[3] https://www.hawaiinewsnow.com/story/26110052/another-tragic-family-vacation-to-maui-leaves-teen-paralyzed/
[4] https://www.huffpost.com/entry/hawaii-deadliest-beaches_n_6550864
[5] https://health.hawaii.gov/injuryprevention/files/2015/08/wsocon15a.pdf
[6] https://www.mauinews.com/news/local-news/2019/07/maui-beaches-lead-state-in-spinal-injuries/
[7] https://www.civilbeat.org/2020/08/ambulance-services-could-be-on-the-chopping-block-throughout-hawaii/
[8] https://www.mauinews.com/news/local-news/2020/09/mayor-sets-aside-cares-funds-for-paramedics/

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
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M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Councilmember Tamara Paltin
County Council
County of Maui
200 S. High Street
Wailuku, Maui, Hawaii 96793

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Councilmember Paltin,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

We understand, and concur, with your concerns related to beach safety. As you have noted, beach and ocean goers in the project area have been injured in the past, and many rely on ambulance service provided by the American Medical Response (AMR) services. In addition, Kā'anapali Beach is consistently one of the most dangerous beaches in Hawai'i, based on reported injuries.

Your letter expresses concern that the proposed project not impact, in a negative manner, the function or capacity of the Napili and Lāhainā Comprehensive Health Center AMR units.

Based on this discussion, you requested that the DLNR consider secondary impacts of the project associated with AMR services.

Based on these comments and suggestions, and others received during the public review and comment process, the Environmental Impact Statement (EIS) has been revised to include additional discussion in the following sections:

- 2.1.8 Nearshore Bathymetry and Coastal Processes
- 2.1.9 Sand Characteristics
- 2.2.5 Coastal and Nearshore Recreation
- 2.2.6 Public Health and Safety
- 2.3.2 Medical Facilities

- 2.5 Secondary and Cumulative Impacts
- 6 Summary
- 8 Unresolved Issues

You also note that the funds allocated for the beach restoration project could be spent on fundamental healthcare services in the region.

We appreciate your comments and concerns in regard to the potential effects of the project on Napili and Lāhainā Comprehensive Health Center AMR units. However, because the project does not increase capacity or hazardous condition, there should be no additional burden on health care systems.

Funding for the project will be provided by both the State of Hawai'i Department of Land and Natural Resources (DLNR) and the Kā'anapali Operations Association (KOA), with close to an even cost share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

October 7, 2020

To: Governor David Ige
Executive Chambers, State Capitol
415 South Beretania Street
Honolulu, Hawai‘i 96813
via: https://governor.hawaii.gov/contact-us/contact-the-governor

From: Albert Perez, Executive Director
Maui Tomorrow Foundation
55 N Church St A-4
Wailuku, HI 96793

Cc: Sam Lemmo, Administrator
Office of Conservation and Coastal Lands Department of Land and Natural Resources 1151 Punchbowl Street
Honolulu, Hawai‘i 96813
sam.j.lemmo@hawaii.gov

Christopher Conger
Sea Engineering Inc.
Makai Research Pier
41-305 Kalanianaole Highway Waimānalo, Hawai‘i 96795
cconger@seaengineering.com

Subject: Comments of Maui Tomorrow Foundation on the Department of Land and Natural Resources' Kā‘anapali Beach Restoration and Berm Enhancement Draft Environmental Impact Statement, Lahaina, Maui, concerning areas makai of TMK Nos. (2) 4-4-013:007; (2)4-4-013:006; (2) 4-4-013:008; (2) 4-4-013:013; (2) 4-4-013:002; (2) 4-4-013:001; (2) 4-4-008: 022; (2) 4-4-008;019; (2) 4-4-008:001;(2) 4-4-008:002; (2) 4-4-008:003; (2) 4-4-008:005; (2) 4-4- 008.

We have reviewed the subject DEIS, and offer the following comments:

1. The DEIS needs to discuss managed retreat planning as a mitigation measure for the proposed project.

The DEIS indicates that managed retreat processes will be ongoing and the project is proposed for the "meantime." However, the managed retreat process is currently not proposed as a

mitigation measure. Requiring benefited landowners to take steps towards managed retreat or managed retreat planning needs to be proposed as a mitigation measure.

2. The EIS needs to adequately address the secondary and cumulative impacts of the project.

Impacts on real estate markets, the dependency of renourishment on reinvestment in nourishment projects, and these projects' tendency to give potential shoreline developers a false sense of security, and to underestimate the impacts of sea level rise need to be discussed in the EIS.

3. The EIS needs to discuss the economic impacts on subsistence fishers and gatherers, which will be substantial even if of a short duration.

This impact will have a particularly harsh effect on subsistence gatherers who may have few or no other sources of income.

4. The EIS needs to discuss and mitigate post-construction public safety impacts.
Beach nourishment and accompanying morphological changes in the beach may be contributing to an increase in serious aquatic accidents and drownings. This includes increases in spinal injuries consequent to ocean recreational users diving or falling into areas that were previously deeper or due to steeper waves caused by changed seafloor depths.

The EIS also needs to adequately consider changed rip currents and the formation of sand bars, and needs to more clearly provide mitigation for these impacts, as well as appropriate mitigation.

5. The EIS needs to address the potential for the project to exacerbate ocean user conflicts.

6. The Cultural Impact Assessment contained in the DEIS is currently inadequate. It needs to take a much broader view on culture and better engage West Maui communities.

7. The cumulative impacts on cultural resources and practices need to be consistently and thoroughly documented in the EIS.

8. The impacts of sedimentation on live corals and on essential fish habitat need to be adequately disclosed in the EIS.

9. The impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices needs to be adequately discussed in the EIS.

Mahalo for the opportunity to comment.

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Mr. Albert Perez, Executive Director
Maui Tomorrow Foundation
55 N Church St
Lahaina, Hawai'i 96761

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Mr. Perez,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled

out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

2. Secondary and Cumulative Impacts

We understand and value the public concern over potential Secondary and Cumulative impacts that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential secondary impacts to emergency services, resulting from changes to beach conditions and nearshore hazards.
- Potential secondary impacts by masking true rates of shoreline change, thereby affecting the real estate markets and coastal hazard assessments.
- Potential secondary environmental impacts resulting from recovery of sand in the offshore sand field.
- Potential cumulative impacts associated with a proposed beach restoration project five miles to the north.
- Potential cumulative impacts to cultural resources, based on potential to impact iwi kūpuna and possible contentious reaction to the project due to proximity to Pu'u Keka'a.

To address potential impacts to public safety updates were made to Section 2.2.5 Coastal and Nearshore Recreation and Section 2.2.6 Public Health and Safety.

Based on community feedback, we have conducted additional site investigations and produced an addendum to the marine environmental report, which can be found in Appendix C of the FEIS. This addendum improves the characterization of the nearshore marine environment, allowing for a more robust assessment of potential direct, secondary, and cumulative impacts to the marine environment.

To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. Post-construction monitoring proposed for this project can generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands. These post-construction monitoring efforts have been updated based on community and agency feedback and are detailed in Section 7.1 Monitoring Programs.

Additional discussion and analysis have been added to Section 2.2.7 Cultural Resources for iwi Kūpuna, Pu'u Keka'a, fishing, surfing, diving, paddling, and other practices that may be impacted.

Section 2.2.5 Coastal and Nearshore Recreation has been revised to include freediving, gathering, and worship, and Section 2.2.6 Public Health and Safety has been updated to more thoroughly discuss potential impacts to the beach and nearshore, including sand compaction, nearshore bathymetry, and waves.

Section 8 Unresolved Issues has been updated to include potential impacts to cultural resources, ocean recreation, potential environmental concerns, and public safety.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS. This section has been revised to address comments received during the public comment period, including discussion during the public meeting.

3. Economic impacts on subsistence fishers and gatherers will be substantial even if of short duration.

Concerns raised through public review, public meetings, and focused discussions with individuals and small groups highlighted the need to further investigate and analyze potential impacts to subsistence fishers and gatherers in the community. Public comments indicated that even a short-term impact to some of these community members could be serious.

The sand recovery area may have fisheries utilized by subsistence fishers in the region. To address this, the proposed project will:

- Require coordination between the contractor and the local subsistence fishing community. During construction the contractor and the State will provide schedule updates and maps showing the locations and timing of work.
- Relay updated schedules and projected locations for sand recovery, transport, and placement operations.
- Ensure the local subsistence fishing community has the maximum access allowable, given public safety concerns, to the sand recovery site and along the shoreline.

Post-project recovery of the ecology will range from immediately to less than a year. Previous studies and assessment of the project area indicate that many mobile species are likely to avoid the project during operation. For those species living within the sand, there will be a loss where sand is

recovered. These species, based on previous studies and assessment of the project area, will likely return in less than one year.

Shoreline areas closed to the public will be limited to active construction areas utilized for sand offloading, sand transfer along the shoreline, and sand placement on the beach. Crossing guards will be available to assist beach users with safe transit across the transportation lanes, to and from the waterline.

Similar to the sand recovery area, previous studies indicate that mobile species in the active beach face and nearshore sand in the Hanakaʻōʻō Littoral Cell are expected to vacate the area, while those that cannot depart will be lost during beach restoration. Those intertidal species that live within the active beach face and nearshore sand in the Hanakaʻōʻō Littoral Cell are anticipated to recover in less than a year, following completion of the proposed beach restoration project.

Discussion in the EIS that relates to these resources, anticipated impacts, and the proposed mitigation, can be found in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.2.4 Beach Access
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring

Discussion has been added to the EIS in Section 8 Unresolved Issues, with respect to potential impacts to subsistence fishermen and gatherers.

4. Post-construction public safety impacts are not identified or mitigated

Public safety is discussed in several sections as it pertains to existing conditions and potential short-term and long-term impacts from the proposed project. These discussions are presented in the EIS, Sections 2.2.4 Beach Access, 2.2.5 Coastal and Nearshore Recreation, and 2.2.6 Public Health and Safety. Additional discussion is included in Section 8 Unresolved Issues.

5. The project will exacerbate ocean user conflicts

Both nearshore and coastal recreation are discussed in the EIS in Section 2.2.5. There is a thorough discussion of the anticipated short-term impacts to both, and there is no expectation for long-term, secondary, or cumulative negative impacts to either nearshore or coastal recreation. Additional maps and discussion have also been added to Section 1.6, showing the sequencing and approximate daily work areas for each effort.

There is an expectation for an improvement in coastal recreation through the restoration of historic beach width in the Hanakaʻōʻō Littoral Cell and the improved beach health in the Kāʻanapali Littoral Cell.

6. The Cultural Impact Assessment in the DEIS is currently inadequate. It needs to take a much broader view on culture and better engage West Maui communities

We understand and value the public concern over potential impacts to cultural resources that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Cultural Impact Assessment (CIA) engagement of the community was not thorough.
- The CIA and Draft Environmental Impact Statement (DEIS) assessments of cumulative impacts are not consistent if previous impacts to iwi kūpuna are considered and if Hawaiian cultural practitioners "may react negatively" to development in a culturally sensitive area.
- "The cultural resource people should be independent and NOT those paid by the developer."
- Iwi kūpuna that have been disturbed previously and may be disturbed during the proposed project.
- Activities near Puʻu Kekaʻa, which is a leina a kaʻuhane, may have a cultural impact.
- The potential to discover additional resources in the sand borrow area during the proposed project should be addressed.
- Engagement of an "Ocean Archaeologist" to examine the sand in the borrow area and fronting Puʻu Kekaʻa and Kekaʻa Landing.
- Cultural resources such as surfing, diving, paddling, fishing, and other practices may be impacted.
- Fish, benthic community members, surf breaks, and currents were not adequately addressed in the discussion of cultural impacts.
- Impacts to surf breaks should be assessed as native Hawaiian traditional and customary practices, as such surf spots should be considered cultural resources.
- The Kanaka Maoli community input should be used to redevelop mitigation and project plans and assessment for their impacts.

Additional community engagement occurred through the public review process, video conference public meeting, and presentation to the Maui Lanaʻi Island Burial Council. Following review of the testimony provided and discussions, the FEIS was revised to more thoroughly address cultural resources and potential cultural impacts.

The Cultural Impact Assessment (CIA) was the original review, community engagement, and assessment for the proposed project. Since the completion of the CIA, extensive follow up work associated with the EISPN, DEIS, and two rounds of public engagement has been completed. These efforts built upon the foundation of the CIA, expanding its breath and depth and exploring new topics. This process has been a synergistic activity, growing with the information and insights provided through discussion with and comments from Kanaka Maoli, longtime residents, and others who are interested and engaged in the cultural resources of the region. The FEIS is the synthesis of all these activities, presenting a deeper discussion and analysis of the local cultural resources and potential impacts from the proposed project. Based on this thorough process and its results, as presented in the FEIS, no changes are recommended to CIA.

Revisions and supporting data, analysis, and discussion in the EIS that relate to cultural and archaeological resources can be found in the following sections:

- Section 1.5.3 Sand Source – Sand Recovery Area
- Section 2.1.2 Tides
- Section 2.1.4 Currents
- Section 2.1.5 Offshore Waves
- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.17 Scenic and Open Space Resources
- Section 2.2.5 Coastal and Nearshore Recreation
- Section 2.2.6 Public Health and Safety,
- Section 2.2.7 Cultural Resources
- Section 2.2.8 Archaeological Resources
- Section 2.5 Secondary and Cumulative Impacts
- Section 7.2 During Construction Mitigation and Monitoring
- Section 8 Unresolved Issues

Section 7.2 During Construction Mitigation and Monitoring contains details related to protection measures for cultural and archaeological resources, which will be required during construction.

7. Cumulative impacts on cultural resources and practices need to be consistently and thoroughly documented in the EIS.

Based on this and other public comments, the Secondary and Cumulative Impacts section of the EIS has been revised and expanded. Please refer to the response to item 2.

8. Impacts of sedimentation on live corals and on essential fish habitat need to be adequately disclosed in the EIS.

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.

- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will coordinate with and contribute to that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

9. Impact to benthic communities at sand borrow sites; crab populations in the nearshore zone, and on cultural practices need to be adequately discussed in the EIS.

These discussions have been expanded to more thoroughly assess the concerns identified in the public review process. They are discussed above, in response to item 3, item 6, and item 8.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Kanoelani Steward <ksteward@hawaii.edu>
Sent: Wednesday, October 7, 2020 4:26 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] OPPOSE - KÅ«anapali Sand Renourishment Project

Aloha nui,

I am writing to you today to express my strong opposition and concern for the KÅ«anapali Sand Renourishment Project that is proposing to pump 75,000 cubic yards of sand from a nearby site off of PuÇ»u KekaÇ»a. If passed, this project will have detrimental effects on our nearshore fisheries, especially for the proposed sand pumping area and the entire stretch of beach that will be "restored." This project is a temporary fix, and doesn't solve the ultimate problem of rising sea levels due to climate change, and as a result, will negatively harm our marine organisms for the benefit of the tourism industry. All in all, this project is not worth the $9-$13 million of our taxpayer monies that will consequently damage our nearshore marine ecosystem from this sand-pumping process and the large land-based equipment. Born and raised in Lahaina, I strongly oppose the KÅ«anapali Beach Restoration Project.

Aloha,

Kanoelani Steward

--

Kanoelani Steward

ksteward@hawaii.edu

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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DEPUTY DIRECTOR - WATER

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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAI'I 96809

June 8, 2021

Kanoelani Steward
ksteward@hawaii.edu

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Kanoelani Steward,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. The Department of Land and Natural Resources provides the following response to your comments.

We understand that you are opposed to the proposed project.

Marine Environmental Impact

The EIS addresses marine biology, ecologic resources, waves and currents, marine and terrestrial uses, as well as anticipated impacts from the project. Please refer to Section 2 of the EIS for detailed descriptions of the resources and activities and potential impacts from the proposed project.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Funding Concerns

We understand that times are financially difficult for many during the pandemic, and that beach nourishment is an interim, mid-term step, not a long-term solution for coastal management. But beaches are treasured resources in Hawai'i and all parties want to maintain them for as long as possible.

Funding for the project will be provided by both the State of Hawai'i Department of Land and Natural Resources (DLNR) and the Kā'anapali Operations Association (KOA), with close to an even cost

share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

KOA is an active member of the community and a faithful partner to the State in this endeavor. During typical years, Kā'anapali employs roughly 5,000 people, provides nearly $230 million in income, pays approximately $180 million in State and County taxes, not including income tax on the $230 million contributed in salaries. In addition, KOA donates more than $1 million to support local nonprofit organizations and provides more than $5 million in community service and support. KOA's participation and support in this project is in keeping with their ongoing commitment to the West Maui community.

Within the United States, beach nourishment projects have been documented as providing rewarding returns on investment at the federal, state, and local levels. Projects funded and completed in Florida have been analyzed in detail to explore the relationship between funding dollars and return on investment. The figure below, from a 2018 study* shows the relationship between funding for nourishment projects and tax revenue generated by beach tourists in Florida. Beach restoration projects in Hawai'i are generally smaller-scale (length of coastline and volume of sand) than in Florida and elsewhere on continental coasts and are developed and implemented specifically to suite Hawaii's unique coastal environments. However, the general finding that beach nourishment projects provide a good return on investment appears to apply to Hawai'i scale projects, also. The State economy of Hawai'i, similar to Florida, has a strong relationship with the tourism sector.

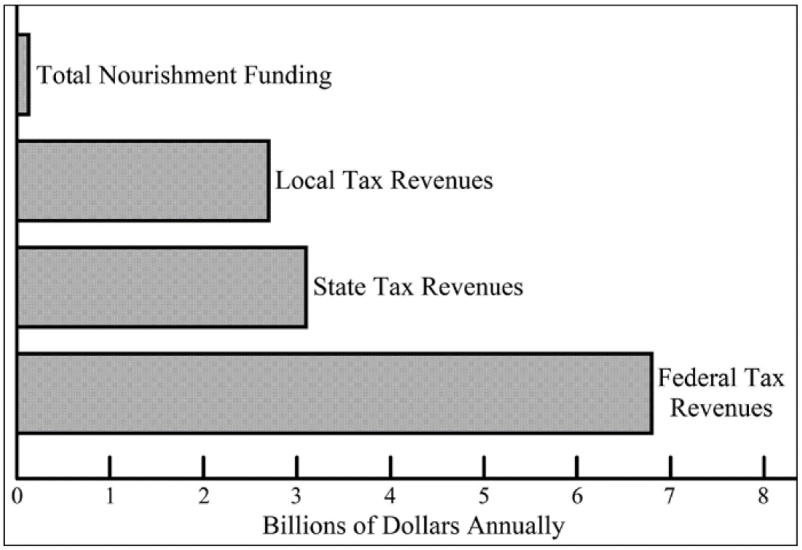

Figure 1. Comparison beach nourishment funding costs to beach tourist generated tax income generated annually in Florida (Houston, J.R. 2018. *The economic value of Florida's beaches.* Shore and Beach, Vol 86, No. 3., pp. 3 – 13).

After a thorough review of the funding sources, costs, and benefits, we believe that restoration of the beach environment is not only a worthwhile endeavor in terms of conserving the public trust beach, shoreline access, and coastal ecosystem but is also an attractive and rewarding investment in and for the community.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Tiare lawrence <tiare4maui@gmail.com>
Sent: Wednesday, October 7, 2020 6:41 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] KŪanapali

Aloha,

The draft EIS failed to include impacts to the large paddling community of Lahaina At Hanaka'ØØ at the southern end of KŪanapali. The pumping of sand will occur in a area where we use for training. The construction will potentially force paddlers further out in to the wind zone. Furthermore the Canoe clubs were not consulted. KŪanapali is an area heavily used for canoe paddling.

Please confirm you received my comment.

Tiare Lawrence

Sent from my iPhone

DAVID Y. IGE
GOVERNOR OF HAWAIʻI

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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HONOLULU, HAWAIʻI 96809

June 8, 2021

Tiare Lawrence
tiare4maui@gmail.com

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kāʻanapali Beach Restoration and Berm Enhancement Project

Dear Ms. Lawrence,

Thank you for your email regarding the Kāʻanapali Beach Restoration and Berm Enhancement project DEIS. In your email you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

Potential impacts to the local paddling community

Outrigger paddling was a principal design consideration in development of the project's scope and work plan. The project has been designed to minimize construction time and transit time fronting the three canoe clubs at Hanakaʻōʻō Beach Park. The southern sand offloading site's location was chosen due to both physical and ecological environmental considerations. Operations at the southern sand offloading site should be limited to a total duration of less than 50 total days.

Unfortunately, with year-round paddling for regatta, distance, and one-man season, there is no ideal time to schedule the proposed project. We are doing all we can to reduce the potential for interaction with the paddling community including longer workdays with seven day work weeks, which should shorten project duration.

Additionally, there will always be an open channel that can be transited by paddlers. The channel will be located between the sand recovery area and shoreline, so that paddlers do not have to venture farther from shore to transit up and down the coastline. Open lines of communication between the marine contractors and paddling community, with weekly updates on schedule and operations, should also minimize the inconvenience.

Comment letters were received from local padders during the EISPN public review process. Responses were included in the DEIS. In addition, email correspondence with representatives from the local clubs was part of the DEIS public outreach process; however, at this time the clubs have not followed up to schedule a meeting. Beach and water access impacts are discussed at length in the

EIS, in Section 2. We are confident that we can accommodate the paddling community during project construction.

Section 5 has a detailed discussion of impacts for each of the alternatives investigated, including the No Action alternative that proposes no change to the status quo. After a thorough and critical review of viable alternatives, the selection of a resource restoration-based design was the preferred alternative.

Section 7 provides details on the proposed Mitigation and Monitoring efforts, designed to minimize potential impacts before, during, and after beach restoration efforts.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,
Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

From: Sarah Brandenstein <sarah211@hawaii.edu>
Sent: Wednesday, October 7, 2020 9:32 PM
To: Lemmo, Sam J <sam.j.lemmo@hawaii.gov>

Subject: [EXTERNAL] No sand pumping

I oppose the pumping of sand on Kaanapali or anywhere in Hawaii. Leave marine ecosystems alone! Protect Maui!

If you are concerned about sea level rise, please join us in opposing the burning of fossil fuels, and work to address climate crisis.

Mahalo, Sarah Escobido Brandenstein

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
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HONOLULU, HAWAI'I 96809

June 8, 2021

Sarah Escobido Brandenstein
sarah211@hawaii.edu

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. Escobido Brandenstein,

Thank you for your email regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS.

We understand that you are opposed to the proposed project.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SIERRA CLUB OF HAWAIʻI
MAUI GROUP
PO Box 791180, Paia, HI 96779

October 7, 2020

To: Department of Land and Natural Resources
1151 Punchbowl St. Honolulu, HI 96813 Attn: Sam Lemmo

Executive Chambers, State Capitol 415 South Beretania

Honolulu, HI 96813 Attn. Governor, David Ige

Sea Engineering Inc. Maikai Research Pier
41-305 Kalanianaole Hwy.
Waimalao, HI 96795
Attn: Christopher Conger

RE: Comments on Draft EIS Ka'anapali Beach Restoration

Aloha Kakou

Mahalo for the opportunity to offer these comments.

The project seeks to address coastal erosion impacts to a popular resort and recreational beach area. We know, and science backs up, that beaches need room to migrate mauka-makai. We also can see that many structures have been built too close to the shoreline over the years, and are beginning to be affected by the Sea Level Rise and climate change happening now. These areas of the DEIS do not provide needed information to establish that the project will have sufficient mitigations in place.

1) Erosion is a Natural Process
The EIS makes it clear that erosion of the Ka'anapali coastline is an on-going process and will not stop due to this project. It is temporary at best. The project is not being proposed to fix something that past policy or projects have broken; it is simply trying to stop nature from being nature. We question whether that is a wise approach for us to take regarding Public Trust Resources . It is a slippery slope for the State of Hawai'i to compromise the environmental

integrity of our islands to shore up hotels against natural forces that existed when the hotel was built, and which were poorly planned for by the property owners.

2) Managed Retreat: While the intent of the project is to restore popular beach areas, it is common for most beach restoration projects to require a "redo" within 10 years. That is why Sierra Club, and other Hawaii groups, have been supporting a movement towards managed retreat in low-lying, erosion and storm prone coastal areas..

The DEIS acknowledges beach restoration projects to be a short term solution for the erosion situation in the Ka'anapali, but the DEIS does not clearly provide a mechanism for the longer term solution of "managed retreat."

3) Post-restoration Erosion: The EIS is assuming a 20-year lifetime for the restored sand. But this number is based on current (or recent) erosion rates and the beach profile will change significantly with the restoration; in particular, the gradient of the beach will be much steeper (see, e.g., Figure 0-7). As the EIS shows, steeper beaches tend to erode faster. Therefore, the lifetime and erosion rates of the completed project discussed in the DEIS, may to be questionable.

4) Restoration or Maintenance?
What happens in 20 years (or less, if the lifetime is inaccurate) when all the sand has eroded? Is this truly a one-time project or will KOA come back and want another restoration? If so, the proposed project is not really restoration but is on-going maintenance in which new sources of sand are going to have to be sought far into the future. And if the lifetime is significantly less, intermittent maintenance will blur into constant dredging. We would like to see data presented in the EIS that assures the public that we are not putting ourselves on a path of ongoing maintenance, rather than a one-time project.

5) **Reef Protection**
The EIS states in Section 2.1.11 that the coral reefs in the area have weathered past shoreline fluctuations with no ill effects and therefore should be largely unaffected by the proposed project. Previous fluctuations occurred on timescales of decades while this project is going to move the same amount of sand that was lost over 80 years in 75 days. We find it questionable that the coral can adjust in that short of a time scale, and the DEIS offers no hard data to prove this assumption. Furthermore, Hawai'i coral is already stressed by global warming leaving significantly bleached coral fields. The EIS does not address the confluence of negative factors such as these. We cannot afford to lose more coral reef. Whole ecosystems are dependent upon it.

6) **Who Funds Project Costs**
Although the question of who foots the bill for the Ka'anapali Beach Restoration project is not really a part of the EIS, it should be part of the discussion. Even if the above objections are satisfactorily resolved, should public funds be used for project funding, either in part or in whole? Would the project even be considered desirable if it weren't for the hotels and KOA. It is their problem, they are the primary beneficiaries of the fix, so they should pay for it. This is no different from other public infrastructure projects in which the beneficiary pays (such as Maui County residents who want a water meter are forced to pay the County to run county water lines to the recipient's property)

7) Draft EIS does not address secondary and cumulative impacts of the project.
Other beach nourishment projects we have commented on that have "harvested" offshore sand to "restore" an eroded beach, have resulted in impacts to the marine floor shape, which has in turn affected native fish habitat, and traditional and cultural practices. The DEIS claims there will be no secondary or cumulative impacts, but this is not realistic.

8) The Draft EIS does not examine Alternative Designs that include significant mitigations
Beach restoration is not a long term mitigation of present conditions along the Ka'anapali shore. The restoration project should discuss project designs that include longer term mitigation activities such as the removal of all hardened structures from the shoreline setback zone, including past seawalls and revetments; or a bonding mechanism for longterm relocation of buildings in the shoreline area facing Sea Level Rise impacts; or a definition of the end of useful life of the existing structures and a commitment to relocation. None of these longer term mitigations are included in the DEIS project discussion of "Alternative Designs" which likely means, that the project has no commitment to pursue any longer term mitigations.

Sierra Club Maui has tracked and commented on various short term solutions proposed and installed along this area for over 20 years. We observe that the area is still facing the same erosional impacts that were present in the 1990's when massive steel plates were embedded along the eroded shoreline to protect the Ka'anapali Sheraton swimming pool and landscaping.

If this project is to proceed, the FEIS should include not just the short term mitigation of the sand replenishment, but the longer term mitigations that allow the shoreline to engage in natural processes.

We appreciate your consideration of our comments,

Lucienne de Naie

Conservation Chair
Sierra Club Maui

DAVID Y. IGE
GOVERNOR OF HAWAI'I

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
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HONOLULU, HAWAI'I 96809

June 8, 2021

Ms. Lucienne de Naie, Conservation Chair
Sierra Club Maui
P.O. Box 791180
Paia, Hawai'i 96779

SUBJECT: Response to Draft Environmental Impact Statement (DEIS) Comment Letter on the Kā'anapali Beach Restoration and Berm Enhancement Project

Dear Ms. de Naie,

Thank you for your letter regarding the Kā'anapali Beach Restoration and Berm Enhancement project DEIS. In your letter you summarized your consideration of and concerns for the proposed project. The Department of Land and Natural Resources provides the following response to your comments.

1. Erosion is a Natural Process

You are correct, erosion is a natural process. Beach restoration is a mid-term solution that restores coastal resources while long-term sea-level rise adaptation solutions are investigated and implemented.

2. Managed Retreat

Concerns raised through public review, public meetings, agency meetings, and focused discussions with individuals or small groups included:

- Adaptation alternative is not adequately described or considered as an alternative.
- Managed retreat planning is a needed mitigation measure for the proposed project.
- Managed retreat is not evaluated properly as an alternative.
- Discussion for managed retreat should consider elements for relocation, reconfiguration, elevating and incremental changes. Not limited to all or nothing retreat strategy.
- Individual elements should have conceptual designs and documented retreat alternatives.
- The EIS does not provide a mechanism for the longer-term solution of "managed retreat."
- Beach restoration is a long-term solution for sea-level rise impacts, so a managed retreat plan is needed for the long-term.
- Some level of proactive managed retreat planning should be included, where possible.

Coastal management now and into the foreseeable future will rely on a range of design and adaptation options that are best suited to local needs, priorities, and capabilities. The suitability of the various design and adaptation options will continue to evolve based on the latest scientific projections for sea level rise, observed erosion and flooding impacts, and availability of government programs and policies to support implementation of managed retreat or other adaption measures. Beach restoration is an acceptable and suitable option for Kā'anapali in the coming decades, and should not be ruled out; however, that does not negate the need for parallel investigating of and eventual adoption of other long-term management and adaptation options. Beach restoration is a short to mid-term solution, intended to restore coastal resources while long-term solutions are investigated and implemented. Beach restoration is not the answer to sea level rise adaption, but it allows us to manage and remedy erosion effects so that we can avoid coastal armoring; protect, preserve and enhance our beaches; maintain economic viability of visitor destinations; and buy needed time to figure out what managed retreat looks like for Kā'anapali and how to accomplish it.

The topic of managed retreat is discussed throughout the document, starting with the first paragraph of the Project Summary on page ii. Additional language has been added to the FEIS to expand on the managed retreat discussion, including the addition of an alternative specifically named managed retreat. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. Section 5.3.5 Alternatives Summary has also been updated to reflect these changes.

However, it is critical to note that this Environmental Impact Statement is for a nature-based adaptation solution for restoring the sandy shoreline as an initial step to address immediate shoreline erosion problems along a long-term path of sea-level rise adaptation. The multi-decadal process of planning for managed retreat should not preclude the State from, in the near-term, fulfilling its responsibility to conserve and, where feasible, restore beach resources and shoreline public access.

It is our view that beach restoration is a legitimate nature-based climate adaption measure which can help Kā'anapali maintain its beach while it simultaneously begins to take steps towards longer term sea-level rise adaptation. Looking at the scientific projections decades into the future and potential adaptation options, it is clear that sea-level rise will require a range of approaches best suited to each community (i.e., neighborhood), while also remaining consistent with Federal, State, and County laws, rules, policies and community plans and objectives.

3. Post-restoration Erosion

As you have noted, the projected lifetime of the project is based on previous erosion rates. Though erosion rates have accelerated in the last 33 years, they are not currently changing rapidly. If sea-level rise rapidly accelerates, erosion rates may accelerate also. The proposed beach face profile (1V:6H) is very close to the existing profile along most of the beach restoration area between Hanaka'ō'ō Beach Park and Hanaka'ō'ō Point. Beach conditions are discussed at length in Section 2.1.8 and the proposed restoration grades and elevations are discussed in Section 1.5.

4. Restoration or Maintenance

The beach may be conserved with sand nourishment or managed retreat or a combination of approaches, but managed retreat is a long-term action that does not address chronic beach loss happing now. Managed retreat is a multidecadal process, requiring years of planning, funding, and

implementation. As a synergistic mid-term step in a much longer adaptation process, the beach can be restored through sand nourishment utilizing sound engineering design and best practices to ensure protection of the nearshore marine environment.

Beach restoration is a specific type of environmental restoration, focused on restoring coastal sandy habitat that extends across the terrestrial/marine boundary. In broad terms, environmental restoration is focused on the renewal of a damaged resource, typically after the resource has been damaged due to human interactions. Modern sea level rise is a result of human-induced global atmospheric and ocean warming. Changes in storm severity have also been attributed to climate change. Moreover, these phenomena are identified as key drivers in accelerating erosion rates in Hawai'i and globally. As such, beach restoration is an important and viable environmental restoration technique to be deployed as part of the suite options needed to adapt to long-term changes in climate, the ocean, and our shorelines.

At this time, additional beach restoration efforts cannot be ruled out. Data collected as part of this restoration project, industry will and public policy, and public interest in the region will determine if additional restoration efforts will take place in the future. Adaptation to sea-level rise in the coming decades and centuries will require a suite of actions, which may include additional beach restoration efforts.

5. Reef Protection

Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential impacts to coral colonies from sedimentation related to the transfer and placement of beach quality sand during the proposed restoration project.
- Concerns about sedimentation in the nearshore environment that may result from the proposed project.
- Concerns about potential impacts to the infaunal communities, Nabeta, and Kona crab in the sand recovery area.
- Concerns about potential impacts to intertidal community and species, such as ghost crabs.
- Requests for additional marine monitoring following completion of the proposed project.
- Request for additional analysis, planning, and discussion with respect to endangered and protected species in the proposed project area.
- Information about previous and on-going marine biology and ecology studies and their results was provided, with the request to incorporate these data sets in the EIS.
- Request to further analyze and discuss shoreline terrestrial flora and fauna.
- Request for additional, quantitative analysis of the existing nearshore reef ecology.

There are many components and tasks associated with the proposed project that interact with or are in close proximity to one or more local marine and biological resource. The proposed project was developed based on requirements to identify, minimize, and mitigate any anticipated impacts to these resources. One of the key parameters was nearshore marine ecosystem health, for which coral reefs are a critical element. To date, there are few beach restoration projects in Hawai'i that have documented post-construction marine ecosystem health. While we are doing all that we can to minimize impacts, we hope that this project can also generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands.

Larger beach restoration projects in Waikīkī and Iroquois Point, both on O'ahu, have not resulted in documented negative impacts to the local or regional nearshore ecosystems. Smaller projects, such as the Kanai A Nalu beach restoration effort on Maui, have similarly reported no significant negative impacts on the local or regional nearshore ecosystems.

Based on community feedback, we have conducted additional site investigations that also incorporated regional data sets and produced an addendum to the marine environmental report. This addendum can be found in Appendix C of the FEIS. Previous studies of the local nearshore environment in the proposed project area are compiled into resource maps for the region. This addendum improves the characterization of the nearshore marine environment. There is focused discussion of the environment in and around the sand placement areas and under the sand transfer areas at the water's edge. In addition, the addendum proposes a post-construction monitoring plan. There are currently two reef ecosystem monitoring stations offshore of Hanaka'ō'ō Beach Park maintained by Ridge to Reef, a volunteer organization. The proposed post-construction monitoring will coordinate with and contribute to that existing data set, providing a robust history for the local reef ecology pre- and post-project.

Additional study and analysis were conducted based on community and agency feedback. Discussion within the FEIS has been expanded to incorporate these new efforts as well as other regional data sets. Some of these data are used to create composite maps showing seafloor types, geomorphology, photograph locations, and coral abundance. The proposed design plan is overlain on these data sets to illustrate the relative locations of proposed actions to the resources.

These discussions, maps, and analyses have been added to the FEIS in:

- Section 2.1.7 Offshore Bathymetry
- Section 2.1.8 Nearshore Bathymetry and Coastal Processes
- Section 2.1.9 Sand Characteristics
- Section 2.1.10 Water Quality
- Section 2.1.11 Marine Biology
- Section 2.1.12 Protected Species
- Section 2.1.13 Coastal Flora and Fauna
- Section 7.1 Monitoring Programs
- Section 8 Unresolved Issues
- Appendix C

Section 7.2 During Construction Mitigation and Monitoring contains details related to environmental protection measures required during construction to protect the regional marine and coastal ecology.

6. Who Funds the Project

Beaches are treasured resources in Hawai'i and all parties want to maintain them for as long as possible. Funding for the project will be provided by both the State of Hawai'i Department of Land and Natural Resources (DLNR) and the Kā'anapali Operations Association (KOA), with close to an even cost share. The construction funds are currently available, with the State's portion already encumbered and KOA's portion secured and ready for use.

The State is responsible for conservation and restoration of beaches, as well as environmental stewardship of coastal ecosystems. Funding beach restoration and berm enhancement projects fits within the scope of the DLNR's management priorities and the Conservation District objectives. In addition, the nearly equal cost share by the abutting landowners creates an attractive and attainable funding opportunity to conduct restoration work on the coastline.

KOA is an active member of the community and a faithful partner to the State in this endeavor. During typical years, Kā'anapali employs roughly 5,000 people, provides nearly $230 million in income, pays approximately $180 million in State and County taxes, not including income tax on the $230 million contributed in salaries. In addition, KOA donates more than $1 million to support local nonprofit organizations and provides more than $5 million in community service and support. KOA's participation and support in this project is in keeping with their ongoing commitment to the West Maui community.

Within the United States, beach nourishment projects have been documented as providing rewarding returns on investment at the federal, state, and local levels. Projects funded and completed in Florida have been analyzed in detail to explore the relationship between funding dollars and return on investment. The figure below, from a 2018 study shows the relationship between funding for nourishment projects and tax revenue generated by beach tourists in Florida. Beach restoration projects in Hawai'i are generally smaller-scale (length of coastline and volume of sand) than in Florida and elsewhere on continental coasts and are developed and implemented specifically to suite Hawaii's unique coastal environments. However, the general finding that beach nourishment projects provide a good return on investment appears to apply to Hawai'i scale projects, also. The State economy of Hawai'i, similar to Florida, has a strong relationship with the tourism sector.

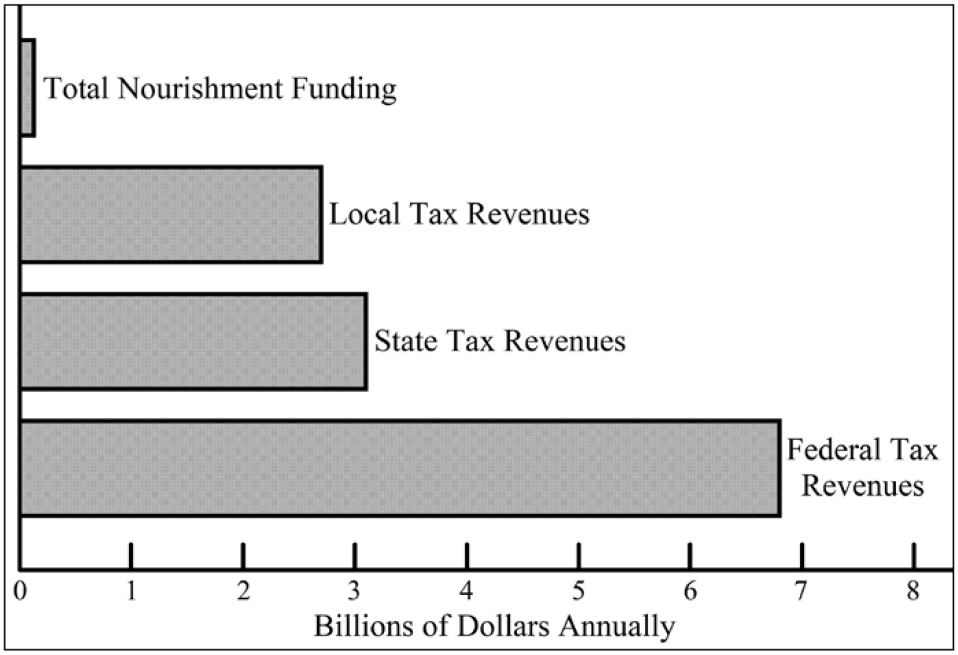

Figure 1. Comparison beach nourishment funding costs to beach tourist generated tax income generated annually in Florida (Houston, J.R. 2018. *The economic value of Florida's beaches.* Shore and Beach, Vol 86, No. 3., pp. 3 – 13).

After a thorough review of the funding sources, costs, and benefits, we believe that restoration of the beach environment is not only a worthwhile endeavor in terms of conserving the public trust beach, shoreline access, and coastal ecosystem but is also an attractive and rewarding investment in and for the community.

7. Secondary and Cumulative Impacts

We understand and value the public concern over potential Secondary and Cumulative impacts that may result from the proposed beach restoration project. Concerns raised through public review, public meetings, agency meetings, and follow up discussions, included:

- Potential secondary impacts to emergency services, resulting from changes to beach conditions and nearshore hazards.
- Potential secondary impacts by masking true rates of shoreline change, thereby affecting the real estate markets and coastal hazard assessments.
- Potential secondary environmental impacts resulting from recovery of sand in the offshore sand field.
- Potential cumulative impacts associated with a proposed beach restoration project five miles to the north.
- Potential cumulative impacts to cultural resources, based on potential to impact iwi kūpuna and possible contentious reaction to the project due to proximity to Puʻu Kekaʻa.

To address potential impacts to public safety updates were made to Section 2.2.5 Coastal and Nearshore Recreation and Section 2.2.6 Public Health and Safety.

Based on community feedback, we have conducted additional site investigations and produced an addendum to the marine environmental report, which can be found in Appendix C of the FEIS. This addendum improves the characterization of the nearshore marine environment, allowing for a more robust assessment of potential direct, secondary, and cumulative impacts to the marine environment.

To date, there are few beach restoration projects in Hawaiʻi that have documented post-construction marine ecosystem health. Post-construction monitoring proposed for this project can generate a dataset that will help inform design decisions on other beach nourishment projects in the Pacific Islands. These post-construction monitoring efforts have been updated based on community and agency feedback, and are detailed in Section 7.1 Monitoring Programs.

Additional discussion and analysis have been added to Section 2.2.7 Cultural Resources for iwi Kūpuna, Puʻu Kekaʻa, fishing, surfing, diving, paddling, and other practices that may be impacted.

Section 2.2.5 Coastal and Nearshore Recreation has been revised to include freediving, gathering, and worship, and Section 2.2.6 Public Health and Safety has been updated to more thoroughly discuss potential impacts to the beach and nearshore, including sand compaction, nearshore bathymetry, and waves.

Section 8 Unresolved Issues has been updated to include potential impacts to cultural resources, ocean recreation, potential environmental concerns, and public safety.

Secondary and Cumulative Impacts are discussed in Section 2.5 of the EIS. This section has been revised to address comments received during the public comment period, including discussion during the public meeting.

8. The Draft EIS does not examine Alternative Designs that Include significant mitigations
Additional language has been added to the EIS to expand on the managed retreat discussion, including an update to Alternative 3 Adaptation. Alternative 3 Adaptation in the DEIS has been recrafted into Vertical Accommodation (Alternative 3) and Managed Retreat (Alternative 4) in the FEIS. See response to item 2 for more details.

Kā'anapali Beach is a valued environmental, social, cultural, and recreational area for residents and visitors. Beach restoration is a mid-term solution that is intended to preserve and enhance the beach resource and shoreline public access for visitors and local residents, alike. It is not intended to fundamentally alter the processes that cause beach erosion at Kā'anapali, rather, it is a restoration and adaptation action to effectively set the clock back by restoring the beach to a former width and volume. Beach restoration is a single step in the long road to conserving the environmental, social, recreational, aesthetic, and economic value of Kā'anapali Beach. The proposed beach restoration project, including both beach restoration and berm enhancement, does not preclude the County of Maui, the West Maui community, and private landowners from developing a long-term sea-level rise adaptation plan, which will likely consider many options, including managed retreat.

See response to item 2 for more details on Managed Retreat discussion.

Resource restoration along our coastlines is an important goal that benefits all. Moreover, the proposed project fulfills the State's responsibility to manage, conserve, and protect coastal resources, including sand beaches, which are public trust lands.

Thank you again for your input on this project. As the project develops, the latest information will be posted on the Department of Land and Natural Resources website at: https://dlnr.hawaii.gov/occl/kaanapali/.

Should you have any questions regarding this matter, contact Sam Lemmo of our Office at (808) 587-0381.

Sincerely,

Sam Lemmo

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands