From:	bgslum
To:	DLNR.BLNR.Testimony
Subject:	[EXTERNAL] REQUEST TO TESTIMONY ORALLY on item K, 4 Ala Moana Park Beach Restoration.
Date:	Thursday, February 11, 2021 9:15:57 AM
Attachments:	USACE POH-2019-00194 Testimony_Bruce_Lum √.pdf

Aloha BLNR,
I wish to provide online testimony at the 2/12/2021 board meeting. Please find my testimony file, "USACE POH-2019-00194 Testimony_Bruce_Lum √.pdf", also attached for your review. The file is what I sent to USACE and the City Administration during the SMA process for this project.

Sorry for this late submission, but I just found out about tomorrow's BLNR board meeting from this morning's Star-Advertiser story. Communication on this agenda item was very obscure.

Mahalo,

Bruce Lum
808-237-9120

--
Bruce Lum
Save Ala Moana Beach Park Hui
https://savealamoanabeachpark.org
‘A‘ohe hana nui ke alu ‘ia.
No task is too big when done together by all.

Testimony on 2.2.13 Sand Replenishment and Beach Nourishment

POH-2019-00194 (CCH Dredging, Beach Nourishment, Ala Moana Regional Park, Oahu)

From: Bruce Lum
99-546 Iwaiwa St.
Aiea, Hawaii 96701

Date: December 19, 2019

To: Linda Speerstra, Regulatory Office Chief
U.S. Army Corps of Engineers, Honolulu District
Building 230
Fort Shafter, Hawaii 96858-5440.

Re: Response to POH-2019-00194 PUBLIC NOTICE

Aloha Ms. Superstar

My name is Bruce Lum of *Hālawa ahapua'a*, in Honolulu District 6, and traditional practitioner, who amongst other things, practices traditional fishing and gathering (*lawai'a, 'ohi pūpū, ka he'e nalu, , mālama mo'okū'auhau, ho'o mākakau mea 'ai Hawai'i, lā'au lapa a'u, kiho'alu, hana hulu, lo ina Hawai'i*). See Table 1.

I am a graduate of Kamehameha Schools for Boys and I am *Kānaka Hawai'i* (native Hawaiian).

Table 1: Hawaiian to English meaning	
My traditional practices are as follows:	
Hawaiian	**English**
lawai'a	fishing
'ohi pūpū	shell gathering
ka he'e nalu	surfer
ho'o mākakau mea 'ai Hawai'i	Hawaiian food preparation
mālama mo'o kū'auhau	genealogy caretaker
lā'au lapa'au	Hawaiian medicine
kī hō'alu	Hawaiin slack-key guitar
hana hulu	feather work
lo ina Hawai'i	versed in Hawaiian custom

Table 1 is offered for reference to support my statements throughout my testimony. I respectfully offer the following as my testimony comments to the POH-2019-00194 (CCH Dredging, Beach Nourishment, Ala Moana Regional Park, Oahu) in observation of the following:
The Corps is seeking your comments on the proposed beach nourishment at the Ala Moana Regional Park. The U.S. Army Corps of Engineers Regulatory Branch (Corps) is reviewing an application from the City and County of Honolulu (CCH). CCH is proposing to add sand from offshore to

the beach at Ala Moana Beach Park. The Corps is conducting a public notice (i.e. asking for comments from the public) about CCH's proposed project as part of Department ofArmy permitting review for conducting work and the placement of fill in navigable waters.

- EISPN (Dec. 23, 2017) - Environmental Impact Statement Preparation Notice
- DEIS (Jul. 8, 2018) - Draft Environmental Impact Statement
- Cultural Impact Assessment (Jan. 2019) prepared by Cultural Surveys Hawai'i (CSH), (**SEE EXHIBIT A).**
- SDEIS(Feb. 8, 2019) – Second Draft Environmental Impact Statement (3/25/2019 comment deadline)
- FEIS (Aug. 23, 2019) – Final EIS, 1748 pages
- SPECIAL MANAGEMENT AREA USE PERMIT (MAJOR) FILE NO. 2019/SMA-36 (Nov. 14, 2019)
- USACE POH-2019-00194 Public Notice (Nov. 26, 2019)
- SMA NO. 2019 SMA-36 Hearing (Dec. 18, 2019)

My testimony is being offered, because I found the Ala Moana Regional Park Master Plan EIS process to be inadequate and flawed in providing the required opportunity and comment time for the public to fairly and competently respond to the EIS. Submitting this testimony proved to be a daunting and unrealistic ask of the public, considering the breadth of material that needed to be discovered, sorted through, studied, parsed for relevant material, categorized and then assembled and prepared for written testimony suitable for submission.

To prepare my testimony additional reading material included:

1. associated laws and guidance documents that regulate and define our state's environmental review process[1]
2. SMA Application - 98 pages
3. POH-2019-00194 Public Notice PDF
4. HRS Chapter 205A Coastal Zone Management Chapter 205
5. State of Hawaii CZM documents
6. Special Management Area Permits
7. HAR Chapter 15-150
8. NOAA Federal Consitency
9. and countless other related documents and resources

GENERAL COMMENTS

At the very minimum, studying the 2,721 pages comprised of the SDEIS, FEIS and SMA Application was a significant challenge and strain on time. For this reason and in the interest of fairness and quality outcomes, I respectfully recommend that a public hearing

[1] Hawaii Environmental Impact Statement Laws http://oeqc2.doh.hawaii.gov/Laws/2016-11-Hawaii-EIS-Laws-Unofficial-Compilation.pdf and Guide to Implementation and Practice (HEPA) http://oeqc2.doh.hawaii.gov/OEQC_Guidance/2012-GUIDE-to-the-Implementation-and-Practice-of-the-HEPA.pdf

on the FEIS and this SMA application be accommodated to ensure the best representation public involvement.

Please understand that I am a single individual, not a paid county employee, engineering consultant firm, city project team or city consultant pool. I had to perform many of the roles that CCH contracted to Belt Collins, to assist the City and County of Honolulu (CCH) & CCH Department of Design and Construction team to execute all the EIS iterations and this AMRP Special Management Area Use Permit Application.

I confess that I did this willingly, for the love, protection and preservation of Ala Moana Beach Park, "the people's park".

It has literally been 56 months since the public first heard about any kind of a plan to improve Ala Moana Park. We the taxpayer park users are feeling like we have not yet been adequately listened to by the city administration. I am truly disturbed that the 2nd Draft EIS, FEIS and this SMA Use Permit Application still contains action items that are prohibited in Ordinance 18-46. Prohibited items should have been taken off the table since the enactment of Ordinance 18-46 pre-dated the publishing of the 2nd Draft EIS of February 8, 2019 **(SEE EXHIBIT B, last page)**.

I will make my first opposition by beginning with City and County Law, attribute reasons and make concluding statement. then proceed through more opposition comments until I conclude. Subsequent sections will follow the attribution, observation, question(s) and concluding remarks as appropriate.

PUBLIC TESTIMONY

Development Concept 2.2.13 Sand Replenishment and Long-Term Beach Nourishment

COMMENT 1

I oppose SMA Development Concept 2.2.13 Sand Replenishment and Long-Term Beach Nourishment on page 7 of the SMA Use Permit Application for AMRP and Magic Island Improvements, Waikīkī Island of Oahu, Hawaii. My reason is because Ordinance 18-46 (Dec. 21, 2018), prohibits improvements to Ala Moana Regional Park on the Makai side of Ala Moana Park Drive. The City Administration eventually complied with Ordinance 18-46 but only removed 2.3.6 Makai Shared-Use Path (a.k.a. sidewalk, promenade and the grassy areas) and removed it from the FEIS on 8/23/2019. The delayed compliance with the law meant that the public was forced to waste valuable time on researching and commenting on 4 other design concepts prohibited by ORD 18-46 **(SEE EXHIBIT B)**, and persisting in the 2nd Draft EIS (SDEIS).

Remaining prohibited design concept items are:

- 2.2.1 Dog Park
- 2.2.7 Reconfigure & Expand Magic Island Parking Lot
- 2.2.12 Improve "High Spot" terrace ADA access and widen the shared-use paths on both sides
- 2.2.13 Sand Replenishment & Beach Nourishment

2.2.13, 2.2.12, 2.2.7, and 2.2.1 are also prohibited by the same law. No explanation or credible reason was given for the other 4 prohibited concepts remaining in the SDEIS other than a curious SDEIS preface statement in the executive summary **(see Attribution 4 below & EXHIBIT C)**. This kind of disingenuous practice was standard and frequent throughout the entire AMRP Master Plan EIS process. IMHO this highly documented, CCH behaviour, and practice makes the entire EIS process and product, from March 2015 to present, suspect in every way.

Attribution 1
The excerpt from the Certificate of Ordinance 18-46 states: "...pursuant to Section 3-203 of the Revised Charter of Honolulu, said Bill 76(2018), CD1 became a duly enacted ordinance on December 21, 2018. **(SEE EXHIBIT B)**
Ordinance 18-46 pre-dated the 2nd Draft EIS and the FEIS.

Attribution 2
Ordinance 18-46, SECTION 2:
Prohibited improvements to Ala Moana Regional Park on the Makai side of Ala Moana Park Drive. No improvements to Ala Moana Regional Park shall be made on the Makai side of Ala Moana Park Drive that will result in either:

> *(a) The widening of existing walkways; or*
> *(b) The reduction of existing grassy areas.*

Mauka vs. Makai orientation:
With Ala Moana Park Drive being the reference from which Makai vs. Mauka is determined, that would locally mean that all improvements attempted right of the park drive. If one was traveling on the park drive from the direction of the Kamakee St. entrance towards the Atkinson St. Entrance direction, is prohibited by Ordinance 18-46. There is no north, south, east, west or ewa, or diamond head in the traditional Hawaiian culture or language. Standard Hawaiian directions are mauka to makai or makai to mauka.

Attribution 3
DEIS Chapter 2, 2.3.6 Makai Shared-Use Path, pg. 2-21 to 2-24 persisted into EIS Chapter 2 2.3.6 Makai Shared-Use Path, pg. 2-22 to 2-25.

Attribution 4
The Executive Summary of the EIS was prefaced by the following:

> *Pursuant to Ordinance 18-46, enacted December 21, 2018, projects that are described in the Proposed Action on the Makai side of Ala Moana Park Drive that will result in either*

> *(a) widening of existing walkways; or (b) reduction of existing grassy areas will not be allowed. During the review process of this Second Draft Environmental Impact Statement (EIS) the Ordinance will be evaluated to determine if any projects makai of Ala Moana Park Drive should be deleted in the Final Environmental Impact Statement (FEIS). Since all proposed projects have been evaluated as part of this EIS, the removal of certain projects will not result in adverse impacts on the environment* **(SEE EXHIBIT C)**.

Observation 1
Ordinance 18-46 is very clear. There was ample time to remove section 2.3.6 Makai Shared-Use Path, pg. 2-22 to 2-25 prior to publishing the SDEIS. The act of not removing §2.3.6 from the SDEIS appears to indicate that the EIS project leadership either:

1. did not understand the ordinance
2. did not believe the ordinance
3. was not capable of effecting removal of §2.3.6 at or before publishing
4. believed that evaluation of the ordinance would render the ordinance invalid
5. believed that removal of §2.3.6 was to great an inconvenience and not worth the effort

Questions Re: Comment 1

1. What was the thinking of the EIS project leadership about not having to comply with OEQC publication guidelines for publishing the EIS?
2. What does the EIS need, besides Ordinance 18-46 to remove §2.3.6?
3. What was the impact on public time due to not removing §2.3.6 for both the EIS project team and to the taxpayer public interested in commenting on the EIS?
4. Did the decision to leave of §2.3.6 in the EIS dampen the total count of public comments from those opposed to §2.3.6?

CONCLUSION **- Comment 1**
Development Concept 2.2.13 Sand Replenishment and Long-Term Beach Nourishment, on page 7 of the SMA Use Permit Application, should be denied because the law prohibits it.

CULTURAL RESOURCES AND PRACTICES COMMENTS

COMMENT 2
I oppose the granting of permit POH-2019-00194 application on the grounds that the AMRP Magic Island Master Plan EIS process violated state laws that protect my rights as a native gatherer under HRS 343, Articles IX & II of the State Constitution, & Act 50_SB.987 **(SEE EXHIBIT E)**. For decades a group of traditional Hawaiian gatherers, including myself, have depended on gathering resources from AMRP's waters, reef, and shorelines for decades. Despite the fact that the Applicant and Applicant Authority were made aware of this fact and provided detail and documentation of these protected practices, our rights were set aside and in effect disrespected by the AMRP Master Plan EIS process. Now it is the permitting process that must determine if it is best practice or legal to authorize POH-2019-00194, and I suggest that it is at least best practice to follow the law.

Testimony on 2.2.13 Sand Replenishment and Beach Nourishment

POH-2019-00194 (CCH Dredging, Beach Nourishment, Ala Moana Regional Park, Oahu)

Attribution 1

At the January 29, 2018 public meeting, the mayor granted a group of interested citizens face time with him for 3 minutes each to tell him the reason we oppose something. For my 3 minutes, I asked him if he believed in the messages printed on on the metal discs that are affixed to the concrete pad at each of AMRP's beach-side showers, and he said, "yes". I then asked, "is that message about no using soaps when showering to protect the ocean creatures and ecosystem, and he said, "yes". I told him that I was against beach nourishment if he persisted with his idea that rocks and rubble on the beach and shoreline at AMRP is "broken" (as he so often characterized it) and also covered up all of the rocky areas in the water of the near-shore that he would be contradicting the intent of the metal disc's message. I told him that many of us depend on the gathering and recreational benefits provided by a wide variety of ocean resources found in AMRP, and that the rubble and rocks are valuable and critical to the nourishment and recharging of ocean resources at AMRP. I told him that all those "broken" areas are fish and resource nurseries and they were very significant in the health of AMRP's aquatic ecosystem and my cultural practices. His response was, "oh, we won't be placing sand on the rubble and rocks in the water, because that is not allowed." That meeting was 7 days after the comments period for the EISPN closed. I took his comment as reassurance that beach nourishment would not impact the rubble and rocky areas in the water. *(See PDF pg. #s 81-82, Vol 2 of 2, DEIS)*

Attribution 2

My comments submitted to the EISPN on January 21, 2019 follow.
Modifying the underwater features and character of AMRP's near shore sea bed should be avoided until a definitive understanding of the ecosystems residing there and how to prevent negative disruption to those ecosystems can be achieved... e.g the rocky areas are integral to the life cycles of many organisms the support life cycles of dozens of fish species that inhabit and frequent AMRP's waterways such as fry to adult fish like mullet, aholehole, ballyhoo, halalu, oio, manini, kumu, weke, oama, humuhumuapua'a, kala, nehu, popa'a papio, kahala, moi, moilii, lai, kupipi, uhu, sardines, flying gunards, hinalea lauwili, christmas wrasse, moorish idols, etc., etc., etc. The rocky areas all along AMRP's shoreline provide food, shelter and protection for all these young fish. Removing or covering of the rocky areas would eliminate nutrients to the seaweed and crustaceans that thrive in and around those rocks and in turn the fish that feed on them will lose that food source. If "don't use soap" signs at showers are integral to AMRP's protection and conservation of our precious aquatic ecosystems then if should naturally follow that AMRP's conservation protocol should include the food sources that the protected ecosystems depend on too.

<u>Note: moi (Threadfin), amaama (mullet), and oama (goatfish) are DLNR regulated species.</u>

EISP response of June 6, 2018 from Joanne Hiramatsu of Belt Collins follows.
<u>*Sand replenishment and long-term beach nourishment*</u>
As stated in Section 5.6, Marine Environment, of the EISPN, sand replenishment is proposed, but that work will demand additional studies to help determine viable options and permits will be needed for this work. (See PDF pg. #s 82-84, Vol 2 of 2, DEIS)

Testimony on 2.2.13 Sand Replenishment and Beach Nourishment

POH-2019-00194 (CCH Dredging, Beach Nourishment, Ala Moana Regional Park, Oahu)

Observation to attributions 1 & 2
I was 4 months between when I face-to-face talked to the mayor about my opposition to beach nourishment at AMRP and when I got a response to my similar comments submitted to the EISPN. The response letter from Belt Collins demonstrated that no studies were done by the date I received the response. Inadequate. BTW, note that the DEIS record of my EISPN comments was "flagged" and there were only 15 flagged comment letters of the 45 submitted by the public.

Attribution 3
Cultural Impact Assessment interview with Kellen Tanaka of Cultural Surveys of Hawai'i that started October 26, 2018. A statement I made to Kellen and found on page 2 of the interview summary and in the record of the SDEIS (Feb. 08, 2019) follows.
Mr. Lum has been gathering at AMRP for decades. He gathers the *pūpū o Ni'ihau* (Shells of Ni'ihau) including *momi* (*Euplica varians*), *laikī* (*Mitrela margarita*), and *kahelelani* (*Leptothyra verruca*). These *pūpū* (shells) are *nā mea huna makamae* (treasured secrets). They are highly prized and the best locations and times where they are found are kept a "trade secret" to protect them from over harvesting. Mr. Lum discussed *pūpū o Ni'ihau:*
. . . that's where the most pristine, most valued specimens of that are caused, one, it's protected, so as a result, it's very robust and then the population is restricted. The practitioners are not encumbered by the cautions and the hazards of doing that here [O'ahu]. **(SEE EXHIBIT A)**

Note: Providing comments as proof of my gathering is a double-edged-sword. Proving it could mean that the extremely rare and limited stock of these shells could disappear if everyone found out how to find them and where to find them. Yet, not defending my cultural right to gather, would also mean the demise of a centuries old native Hawaiian practice of a valuable natural resources that are underprotected and over exploited community in a community like on O'ahu.

I over-provided information in my CIA interview, but was greatly disappointed by the lack of engagement from the AMRP project team and how my comments were marginalized and trivialized in the SDEIS and FEIS.

CONCLUSION – **Comment 2**
Authorization of this permit should be denied. Proceeding with concept 2.2.13 as planned, would significantly impact my native Hawaiian gathering rights if the plan was not changed from indiscriminate beach nourishment to discriminate beach nourishment, The Applicant Authority accepted the FEIS without doing any research or study to determine where the shells I gather are coming from. It is pure guesswork when statements like, the donor sand will contain the shells that I gather or that the disruption to native gathers of shells will be temporary are made. Without ever stating how much time recovery of shell availability will take or divulging information that would guarantee that any live colony of shells at AMRP would not be killed by being buried under donated sand. No proof was ever produced by the Applicant Authority that the 13,600 cubic yards of donor sand placed below the mean high water mark, as shown in the plans, would not significantly depress the nearshore fishery habitat.

COMMENT 3
The Applicant Authority and Applicant violated the cultural gathering protections afforded me

by state laws. Obviously, this permit should not be authorized before a full legal opinion is rendered about the validity of the inaction produced by the Applicant Authority.

Attribution 1

I object to statements made in SDEIS Vol. 1, Chapter 4, §§§§§§§§4.2.3, 4.2.5, 4.4.4, 4.5.5, 4.4.5.3, 4.5.6, 4.5.7.3, 4.6.3 because of inaccuracies and lack of absolute proof that sand

replenishment and beach nourishment would not have long term impacts on cultural resources and gathering. In the CIA interview, I clearly stated how and why the proposed Sand Replenishment and Long-Term Beach Nourishment concept §2.3.13 would disrupt my traditional gathering of *pūpū o Nīʻīhau* shells at the shoreline of AMRP. This warranted further study or closer inspection, including sharing new findings with the public before escalating to an FEIS but that was never done.

SDEIS statements were incomplete, inaccurate, lacked true context,were redundant and were indifferent and dismissive of the interview input about my *pūpū o Niʻihau** gathering. I have attached the actual CIA record of my interview with Cultural Survey Hawaiʻi, LLC. I described my cultural gathering of various resources within AMRP. (EXHIBIT A) The SDEIS statements in the Chapter 4 and sections noted above demonstrated the following:

1. Lack of follow-up on my descriptions of the resources I gathered and how gathering was done. Follow-up of my practices could be correlated to the project work to show how the work would impact my gathering practices.
2. Incomplete and inaccurate representations about impacts to my gathering.
3. Inaccuracies of meaning in restating of my discussion on impacts to fish and fish habitat, and the total lack of interest in my shell gathering practice.
4. §4.2.5 pg. 4-13 line 40 to 41and pg. §4-30 line 19 to 21--*"...turbidity is also one attribute that small fish may use for defense against predation from larger fish, so turbidity may also serve as a positive attribute for juvenile fish."*

    a. First of all, turbidity isn't the only possible impact on the gathering and habitat of *pūpū o Niʻihau* and* fishes. Other impacts are, long-term impacts introduced by contaminants in the donor sand and long-term disruption of my accessing the shells (disruption from the act of beach nourishment).
    *A caution is required here, for the *pūpū o Niʻihau* phrase is used loosely in this document. *Pūpū o Niʻihau* is used here to align with its common use in public media communications. Caution and care is advised, because native speakers would know that this terminology literally means "shell ʻof' Niʻihau. To this point, the use of a single word, "pūpū" (shell), would be more accurate, since the ones gathered at AMRP are not from Niʻihau through of same type.) Mahalo to Jeffrey Kaineheikaʻiliʻili Chun-Lum for sharing his manaʻo (knowledge).[2]

[2] Disclaimer: Jeffrey is a native of Hālawa, Oʻahu. He has served as Kawaihuelani's Educational Specialist since 2016. Currently, Kainehe is working towards his MA in ʻŌlelo Hawaiʻi involving researching methods of Hawaiian net making; specifically those of the Niʻihau people. Jeffreyʻs comments do not reflect the views of his U.H. Dept.

b. Second, the disruption to fish foraging will surely occur by the covering or removing rubble from the near-shore habitat. SDEIS Chapter 4, §§§§§4.2.5 pg. 4-13 lines 40-41, 4.4.4 pg, 4-27 lines 32-33, 4.4.5.3 lines 20-21 lines 26-28 lines, 4.5.7.3 pg. 4-37 lines 17-18 and 4.6.3 pg. 4-53 lines 9-10 imply that the reef's edge, across the swim channel, will provide protection and foraging for juvenile fish. That notion is not realistic, because small fish will have fewer odds of finding suitable amounts of food there and will face greater odds of predators eating them.
c. Implying that removing the rubble will have little or no impact is inaccurate, naive and ignorant. This lame assumption requires scientific validation.

5. §4.4.4, pg. 4-26 line 11-18 – *"Today, fishing is a continued practice and popular locations are off the 'Ewa side ledge of Magic Island and along the walkway fronting the canoe launch ramp. Fishermen are seen at these locations early in the morning and early to late evenings."* This statement, attempts to have one believe that fishing does not occur as much on the AMRP sand shoreline, but is focused on the rim areas of Magic Island, the Ala Wai Harbor and canoe launch ramp. NOT TRUE. This statement begs and deserves closer and more complete inspection to observe more fishing in other locations, due to seasonal opportunities, the need for time-of-day adjustments, and differing fishing methods and adjustments in fishing times to avoid disruptions caused by very heavy volumes of traffic crossing through the traditional fishing grounds. §4.5.5, pg. 4-34 line 18 to 19 – *"None of the fish observed were considered rare and are typical species that are seen on the reef."* This quote was from the Marine Research Consultants, Inc. June 2018 study statement (pg. 8-9), and again the quote is out of context and redundant, as demonstrated below:
   a. *"Limited visibility in the main swim channel was reduced to the point where visual quantitative assessments of fish populations was not possible."* Preceded the above quote (c) – EIS Vol. 1, Chapter 4, pg. 8 to 9, §2. Reef Fish Composition and Community Structure 1st sentence.
   b. *"Limited visibility in the main swim channel was reduced to the point where visual quantitative assessments of fish populations was not possible."* Preceded the above quote (c) – by Maine Research Consultants, Inc June 2018 for Sea Engineering – Appendix F-1, Reef Composition and Community Structure, PDF pg. 462, §F-1 pg. 5, actual rpt. pg. 8 to 9.
   c. *"Limited visibility in the main swim channel was reduced to the point where visual quantitative assessments of fish populations was not possible."*-- Preceded the above quote (c) -- for Belt Collins, by Sea Engineering, January 2019 – Appendix G, PDF pg. 541 §8.1.3, §G 58, actual rpt. pg. 106 §8.1.3

Attribution 2

Being a Hawaiian beneficiary and having Federal and Hawaii State entitlements and protections, I contacted the Office of Hawaiian Affairs (OHA) and requested a copy of any comments submitted to the SDEIS, EISPN or DEIS. I have attached OHA's August 10, 2018 DEIS submission in which OHA CEO Kamana'opono M. Crabbe, states, *"OHA is concerned that information presented in the DEIS is insufficient to address potential significant environmental*

impacts specifically potential impacts to iwi kapuna (human remains) cultural resources, and cultural practices. OHA recommends that the City submit a revised DEIS containing a cultural impact assessment and an archaeological inventory survey report for review and public comment." **(SEE EXHIBIT H)**

Observation 1

In my EISPN comments **(SEE EXHIBIT F)**, I reported gathering *pūpū o Ni'ihau** shells at AMRP and offered to show what I gathered and the location, but to date no one has contacted me to validate or refute my report. I also replied to DDC Director Kroning's response letter to my SDEIS comments to again (2nd time) invite anyone from his team to witness my gathering location and methods, but not one contacted me. This non-response demonstrated an indifference about my gathering rights and protections. In **EXHIBIT F** is my EISPN comment, my, SDEIS response to my DEIS comment and my letter to Director Kroning (DDC), inviting anyone to do a site inspection with my guidance, To date, no response or contact has been attempted by DDC.

Observation 2

Despite my reporting, in my CIA interview with Cultural Surveys Hawaii, **(SEE EXHIBIT A)** about *pūpū o Ni'ihau** shell gathering, no mention of attempting to validate, effects, impacts or mediation on gathering of these shells were included in SDEIS Vol. 1, Chapter 4 sections on:

1. Marine Environment (Near Shore)
2. Marine Environment (Donor Sites)
3. Marine Life and
4. Sand Placement/Beach Nourishment required by OEQC guidance and requirements of the Endangered Species Act of 1973 **(SEE EXHIBIT I)**.[3]

No contact was ever made with me to validate or refute my DEIS comments about my cultural practices within AMRP. My DEIS comments about the absence of studies to determine the composition and value of the ocean ecosystems, fish and biota that exist within the ocean environment of AMRP were largely ignored.

Observation 3

Discussions on the impact to gathering of *pūpū o Ni'ihau** shells would have been appropriate in several sections of SDEIS, Vol.1, Chapter 4. The following sections §§§4.4.5.3, 4.5.5 and 4.5.7.3 were the most natural ones to have included serious discussions, however, no discussions on the impact to the health or habitat of the shells were presented in those sections. A serious observation and study of the *pūpū o Ni'ihau** habitat and threats is a prerequisite to attempting any valid determination on impact or need for mitigation measures. Serious observation and study needs to be done. The omission of discussion, on possible impact to the live community of

[3] Office of Environmental Quality Control, Guide to the Implementation and Practice of the Hawaii Environmental Policy Act, http://oeqc2.doh.hawaii.gov/OEQC_Guidance/2012-GUIDE-to-the-Implementation-and-Practice-of-the-HEPA.pdf.

shells or mitigation concerns, suggests that the cultural impact on the resource and gathering practice of *pūpū o Ni'ihau** was considered minor by the EIS and not significant.

In the Hawaiian community, it is very common knowledge, that *Ni'ihau* has been the primary source of premium *pūpū o Ni'ihau** and *Ni'ihau's* supply is now disappearing at an alarming rate, due to their scarce beaches disappearing from the effects of a rising sea level. These shells are the most highly prized by cultural artisans and consumers alike, but the current and future *Ni'ihau* supply is very seriously threatened. Gathering of th *pūpū o Ni'ihau*,* on the remaining, 6 islands is almost unheard of and supply to meet the artisan and consumer demand has been very insufficient for decades. Any further loss of access to these shells would be considered catastrophic and significant to the Hawaiian community and its ethnically diverse following. (**SEE EXHIBIT G –** book, *Ni'ihau Shell Leis* by Linda Paik Moriarity, APPENDIX B NI'IHAU LEIS IN MUSEUM COLLECTIONS pg. 103).

Questions Re: Comment 3
Did the EIS process engage any other source or reference to satisfy its responsibility for verification of the gathering or the existence of *pūpū o Ni'ihau** within AMRP, as was reported by me?
Due to potential cultural impact on pūpū o Ni'ihau* gathering, did the EIS project team avoid more consideration and study?
Did the EIS project know of any other beach on O'ahu where *pūpū o Ni'ihau**
are gathered as a potential alternative to the disruption of my shell gathering in AMRP?
Did the EIS project team have any inkiling that *pūpū o Ni'ihau** casings are made available from live shell stock living in the vicinity of AMRPs offshore reef and swim channel? Why was a statement made that, the act of beach nourishment would provide ni'ihau shells to the area I gather in without any absolute knowledge of where a source of live shells is located?

Observation 4
At night, the ocean literally explodes with aquatic life. However, no nocturnal survey or study was conducted for the AMRP Master Plan EIS. This is a significant flaw and omission it the pursuit of determining possible ecosystem and environment impacts with AMRP's offshore and nearshore environments. The SMA Sand Replenishment and

Beach Nourishment concept is glaringly incomplete without a nocturnal ocean survey and study component. Much of AMRP's ocean and beach environment will be affected in someway by SMA concept 2.2.13. An obvious shortfall of this missing component relates to the fact that

AMRP is home to DLNR regulated fish species like amama (mullet), moi (pacific threadfin) and oama (juvenile goatfish).

Attribution 5
The POH-2019-00194 PUBLIC NOTICE FACT SHEET, Page 5, states, "The proposed project is the nourishment of the shoreline at Ala Moana Regional Park discharging approximately 70,000 cubic yards of beach quality sand, **13,600 cubic yards of which would be placed below**

the Mean Higher High Water Mark (MHHW) in a 5.3-acre area." The illustration on Sea Engineering page 24, Sheet 23 of 32 shows clearly that about 65% of the shoreline with nearshore rubble and rocks that the mayor indicated is "broken" during early-on presentations to

the public and in my face-to-face discussion I had with him, and described in **Attribution 1** on page 5 of this document. The placement of sand on the

beach will bury the shells that I gather. Not knowing how the shells I gather get to the beach is significant in view of the fact that sand placement will also extend below the mean high water mark. The state that only 4% of the rubble and rocky area will be impacted is deceptive, because the calculation to arrive at 4% included the reef offshore of the beach project site. In truth, approximately 66-75% of the rubble and rocky area of the nearshore will be covered as shown by the illustration on SE pg 24 Sheet 23 of 32. **That is a significant elimination of in-water, nearshore, AMRP fishery habitat.**

CONCLUSION – **Comment 3**
Authorization of POH-2019-0094 should not be granted, because good faith and due diligence was clearly missing from the EIS process that produced the AMRP Master Plan FEIS. Many of the reasons and responses given to explain why impact to fish habitat and fish stock were not significant had no factual basis or proof. Much of what was stated as answers to issue was purely speculation and guess work.

COMMENT 4
The University of Hawaii Pacific Islands Ocean Observing System (PacIOOS) has a Turbidity Plume Forecast for Ala Wai, O'ahu webpage that shows the potential plume (run-off) from the Ala Wai canal for an extreme rainfall event. The animated illustration clearly suggests that

pollutants have been reaching the sand donor sites A and B shown on the Sea Engineering page 21 Sheet 30 of 32 of POH-2019-00194 PUBLIC NOTICE FACT SHEET
https://www.pacioos.hawaii.edu/water/model-plume-alawai/#example

Attribution 1
The Department of Land and Natural Resources (DLNR) guideline for what
kind of sand can be used for beach nourishment include the following:
- The sand added to the beach must NOT contain pollutants, grease, silt, clay, sludge, organic matter, turbidity, and other contaminants. – quoted from POH-2019-00194 PUBLIC NOTICE FACT SHEET pg 5.

The illustration on Sea Engineering page 21, Sheet 20 of 32 of the POH-2019-00194 PUBLIC NOTICE FACT SHEET, shows that the sand donor sites A and B are clearly within the area of the plume animation's most developed silhouette.

Testimony on 2.2.13 Sand Replenishment and Beach Nourishment

POH-2019-00194 (CCH Dredging, Beach Nourishment, Ala Moana Regional Park, Oahu)

Attribution 2
On Tuesday, June 4, 2019 a group of individuals including myself, were hosted by the

Department of Design and Construction to the meet with Sea Engineering to see a presentation on the sand replenishment and beach nourishment study done for concept 2.2.13. At the meeting, we asked Sea Engineering if they had tested the donor sand for pollutants and answered quickly and clearly, "no". We were allowed to tape the meeting so we have audio record of the

"no" answer. At the Department of Planning and Permitting SMA hearing on December 18, 2019, Sea Engineering was asked if the tested the donor sand for pollutants and they did not indicate that they did or did not. Thy did say that they were being asked the same by other permitting agencies too.

CONCLUSION – **Comment 4**
Research information suggests the strong likelihood that pollutants from the Ala Wai may have reached sand donor sites A and B. It is imperative that the donor sand be tested to ensure that DLNR guidelines are met and satisfied to guarantee that health and safety standards are met.

FINAL OVERALL CONCLUSION
SMA concept 2.2.13 has failed to satisfy enough important criteria that removed from that SMA use permit application POH-2019-00194 should not be authorized due to many inaccuracies, omissions of fact, ignorant statements and an obvious disregard for the laws that protect ocean resources and native Hawaiian gathering rights and practices.

Sincerely and respectfully,

Bruce Lum
99-546 Iwaiwa St.
Aiea, Hawai'i 96701
email: brlum@mac.com

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EXHIBIT A

Cultural Impact Assessment Interview – Bruce Lum

CULTURAL SURVEYS HAWAI'I

ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL DOCUMENTATION SERVICES - SINCE 1982

O'ahu Island
P.O. Box 1114
Kailua, Hawai'i 96734
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Branch Offices:
Hilo, Hawai'i
Kona, Hawai'i
Lawai, Kaua'i

January 30, 2019

Bruce Lum
99-546 Iwaiwa St.
Aiea, HI 96701

Subject: Cultural Impact Assessment for the Ala Moana Regional Park and Magic Island Master Plan Project, Waikiki Ahupua'a, Honolulu District, O'ahu, Hawai'i, TMK [1] 2-3-027:001, 002, 022, 023 and 025.

Enclosed: Interview Summary

Aloha e Mr. Lum

Cultural Surveys Hawai'i (CSH) submitted a draft Cultural Impact Assessment for the Ala Moana Regional Park and Magic Island Master Plan Project to Belt Collins Hawaii LLC in January 2019. On the following pages you will find a copy of your final interview summary just as it appears in the report. *This is for your records.*

The client (Belt Collins Hawaii LLC) will include the finalized Cultural Impact Assessment report in their ENVIRONMENTAL IMPACT STATEMENT (EIS). It often takes many months for an EIS to be produced and become public record. Once the EIS has been submitted to the state, you will be able to access and read the entire report by going to the Office of Environmental Quality Control website and accessing the "EA and EIS online library". The link can be found at: http://oeqc.doh.hawaii.gov/default.aspx. As soon as the report becomes a public document, CSH can provide you with a hard copy or CD of the report, upon request.

Please do not hesitate to contact me if you would like a copy of the report or if you have any questions. Again, mahalo nui loa for your contribution to this critical study.

Me ka ha'aha'a,

Kellen Tanaka

Kellen Tanaka, B.A.
Cultural Researcher

On 26 October 2018, Mr. Bruce Lum, a *lawai'a* (fisherman) and native gatherer, met with CSH at the Pearlridge Shopping Center to discuss the Ala Moana Regional Park (AMRP) and Magic Island Master Plan project and to share his extensive knowledge of the abundant marine resources within the project area.

Born on O'ahu, Mr. Lum lived in Mānoa as a child before moving to Kaua'i to be the *hānai* (adopted child) of his maternal grandparents and family. Under the tutelage of his grandfather and *konohiki* uncles, Mr. Lum learned the traditions of fishermen, preparation for assuming the role of a *lawai'a* within his family. After returning to O'ahu to attend Kamehameha Schools, he continued learning about the ocean and fishing practices from his father and his paternal uncles.

> I grew up in the *lo'i* [irrigated terrace], I grew up making *poi* [the Hawaiian staff of life, cooked taro corms, or on rare ocassions breadfruit, pounded and thinned with water]. So my role in the family became *lawai'a*, so I'm a fisherman. . . . in those early days, amongst the family, I either went into the *lo'i* or I went into the rivers or I went into the ocean. So either *lawai'a*, farming or fishing in the rivers, harvesting in the rivers.

Mr. Lum traces his genealogy back 16 generations to the Maui chief, Kekaulike. When King Kamehameha was unable to conquer Kaua'i, he sent a chief named Manohā to Kaua'i to strike a treaty and convince Kaumuali'i, chief of Kaua'i, to come to O'ahu and live under the watchful eye of the Kamehameha family. Then Kamehameha sent his Maui chiefs to oversee Kaua'i. Mr. Lum's *kupunawahine kualua* (great-great-grandmother) is descended from these Maui chiefs.

> My mother's side of the family is from Kaua'i. So, my Hawaiian comes from her. And, her *tūtū kāne* is Henry Peters and her *tūtū wahine* is Mele Homai'kawaialohalani Manohā. . . . the breath of a shark (*kaona*). So, my lineage goes deep. Way back. And, in this aspect, this topic area, so in my family it was typically Hawaiian. What people would call real Hawaiian. . . What that means is that, their side actually, they did not practice it. It's innate. It's just what they did.
>
> . . . My *tūtū wahine*, Mele Homai'kawaialohalani Manohā, she comes from [descends from] Honoapi'ilani and Maewa. So she's part Ni'ihau and part Kaua'i. But even she lived here [Waikīkī] . . . So, I have a deep genealogy in the area of Waikīkī cause they lived on Cartwright Road, next to the zoo. So, they were there when Waikīkī was not like it is today. They told me stories about all the things that happened in Waikīkī, who lived there and the names of the places and how they actually wove into the area.

Mr. Lum has been gathering at AMRP for decades. He gathers the *pūpū o Ni'ihau* (Shells of Ni'ihau) including *momi* (*Euplica varians*), *laikī* (*Mitrela margarita*), and *kahelelani* (*Leptothyra verruca*). These *pūpū* (shells) are *nā mea huna makamae* (treasured secrets). They are highly prized and the best locations and times where they are found are kept a "trade secret" to protect them from over harvesting. Mr. Lum discussed *pūpū o Ni'ihau*:

> . . . that's where the most pristine, most valued specimens of that are cause, one, it's protected, so as a result, it's very robust and then the population is restricted. The practitioners are not encumbered by the cautions and the hazards of doing that here [O'ahu].

Mr. Lum recalls when the Ala Moana area was a bog. He stated that Ala Moana used to be a reef and the ocean went all the way up to where Ala Moana Boulevard is today. In ancient times, the area between Diamond Head and Kaka'ako was known as Kālia. Kālia consisted of shallow reefs along the shoreline.

> *Kālia* used to be shallow reefs . . . they [fishermen] don't even use net. They just join hands and walk around the reef and they all close in, slapping the water, called *pa'i pa'i* [clap]. And all the fish start coming in. It's inside where they have the nets. Close the nets, take what you want, let the rest go.

The area *mauka* of Ala Moana Boulevard was full of artesian wells. Natural drainage brought fresh water down from the mountains into the area where it would mix with salt water creating an ideal incubator for all types of ocean resources.

> All of these *'auwai* [irrigation ditch] used to come down from Papakōlea, up Tantulus, Makiki, all that area. And had all these ditches, all of them had artesian wells around them. There were *loko i'a* [fishpond] all over Makiki and McCully. *Loko* [pond] of all kinds, wasn't just for fish. There were *lo'i*, all kinds.

He also depends on the park's beach to gather a wide variety of reef and nearshore fishes. He gathers various marine resources for use as bait including *'oama*, ballyhoo, eels, octopus, shrimps, reef fish, shell fish, various juvenile fish and types of *limu* (seaweed).

> From a *lawai'a* standpoint, from a practicing *lawai'a* standpoint, . . . A cultural practice in Hawaiian is that's [ocean] your refrigerator. You no go to the refrigerator all the time like the western world goes to their refrigerator. You go to it by seasons, you go to it by the right factors, you go to it by the right seasons, you go to it by my feelings. My need. Events. Whatever. I do it when I do it. I may not do it for the whole year. But that's ok cause that's how we practice too. We let things rest, we let them recharge. I have to do more of that now because there's more of us there [*Kālia*] and there's more people who don't practice that and they just trample over everything and just upset the whole balance.

Mr. Lum discussed the numerous factors affecting the gathering practices.

> Are there plenty people there? Is this the right time of the year? What's our chances of being successful at this? Lot of people, lot of activity. What tide is it? At low tide, you're not gonna find a lot of people floating around over here. They not gonna be around. So, good. Time to go *he'e* [octopus], time to go look for shrimp, bait. Time to go look for eel 'cause they come out and they easier to catch. So, *puhi* [eel] is bait. And *tohei*, the white eel, that's night. We got to go at night. Torching. And the shrimp, nights better . . . Some reef fish, they sleep on the surface. That's catching, not fishing.

Mr. Lum recalled gathering *limu* from the reef along the shore near the lighthouse by Diamond Head.

> There's all these walking ponds in the reef. Used to be covered in *limu. Limu kala* . . . when we go over there, we just go over there at the right time, pick up the *limu* that's inside the hole. Just pick it up, shake it over the bucket we have. It's full of zebra shrimp. Plenty zebra shrimp. And we used to catch so many fish at Diamond Head using that shrimp. Now, it's a preservation. It opens up every even year. I used to walk that reef, catch what I want, go home. Now, when they open it up, they [public] go over there catch anything that's moving. They shoot anything that's moving. It's terrible.

The rocky beach shoreline (at AMRP) serves as a nursery for seasonal schools of juvenile fish inhabiting the area. It is a source of nourishment and a sanctuary from predators. Mr. Lum believes that modifying the rocky beach shoreline would negatively impact the ecosystem by eliminating nutrients to the seaweed and crustaceans that thrive in these areas which would also affect the fish that depend on them as a food source.

> These areas are inside reefs cause they were reefs before. . . . They serve the same purpose, they have the same function as the reef out here, except there is a special function now it does better, . . . the *i'a* [fish] and the shells, the *pūpū*, and the *limu*, they all work together. I look at these areas, not as rocks, not as inconveniences to me as a beach goer. I look at it as perfect because the big fish here has little fish. Little fish cannot stay out here with the big fish. Big fish don't play well with little fish. They eat 'um. I look at these as nurseries, I look at them as pre-schools. This is where the fish come and hide, and grow up, and feed on all the nutrients. This is where all the fish grow up. This is how they learn. . . . Survival skills, nourishment, they grow up, they recharge this reef.

Mr. Lum identified some of the numerous fish species he has observed in AMRP's waterways including mullet, *āholehole* (Hawaiian flag tail, *Kuhlia sandvicensis*), ballyhoo (*Hemiramphus brasiliensis*), *halalū* (Big-eyed scad fish, *Trachiurops crumenophthalmus*), 'ō'io (Bone fish, Albula vulpes), *manini* (Convict Surgeonfish, *Acanthurus triostegus*), *kūmū* (White Saddle Goatfish, *Parupeneus porphyreus*), *weke* (Golden-banded goat fish, *Mulloidichthys auriflamma*), *'oama* (juvenile *weke*), *humuhumunukunukuāpua'a* (Aculeate trigger fish, *Rhinecanthus aculeatus*), *kala* (Unicorn surgeon fish, *Naso brevirostris*), *nehu* (Hawaiian anchovy, *Stolephorus purpureus*), *popa'a* (also *po'opa'a*, Hawkfish) *pāpio* (juvenile Black Trevally, *Caranx lugubris*), *kāhala* (Greater Amberjack, *Seriola dumerili*), *moi* (Pacific threadfish, *Polydactus sexfilis*), *moili'i* (juvenile *moi*), *lai* (Leather-back fish, *Scombroides sancti-petri*), *kūpīpī* (Blackspot Sergeant, *Abudefduf sodidus*), *uhu* (Parrotfish, family Scaridae), sardines (Marquesan sardine, *Sardinella marquesensis*), flying gunards, *hīnālea lauwili* (Duperrey's wrass or Saddle wrasse fish, *Thalassoma duperrey*), *'āwela* (Christmas wrasse, *Thalassoma trilobatum*), and *kihikihi* (Moorish idols, *Zanclus conutus Linnaeus*) and many others.

Mr. Lum stated his concerns regarding the proposed sand replenishment and long-term beach nourishment of AMRP, highlighting the potential adverse impact it will have on the existing ecosystem and traditional gathering practices. Mr. Lum made clear that beach nourishment will be disruptive to cultural practices that are dependent on a very consistent, self-sustaining, recharging ecosystem.

> Disturbance [as a result of sand replenishment] will be a disruption 'cause it will take a while for it to go back to how it was, it will take a while for the oceans to sift the sands for us, the gatherers, to have it be what it is and as hard as it is now. It's not plentiful . . . it probably would take me, only one particular time of the year, which is when I get the right currents, right turbidity in the water, so that the gathering happens the way I expect, so I know where to find them in good enough quantities. It would probably take me three months.

According to Mr. Lum, sand replenishment activities at Ala Moana Regional Park and Magic Island would result in the loss of natural and cultural resources:

> The upset of it will be, the nature of the sand, you're gonna bury it all [Ni'ihau shells] . . . It took years before it came back to what it was before because it goes with the tides. Sand

> moves with tides. This is a primary surfing spot in the summer. During summer, the turbidity of this water, night and day, just like the North Shore, winter big, summer small. Reverses down here, south big, north small. Not only brings them in, nourishes them. It's the filtration system they use in order to eat the algae. All that happens around them is because of that. And you upset that [current shoreline], and that goes south. Gone. And for quite a while. For what? And you got to go fill it again. And with climate change it's gonna happen [sand beach erosion] in half the time it did before.

Mr. Lum is also concerned that construction activities associated with the widening of the Makai Shared-Use Path will result in runoff into the ocean. A city dump for trash was previously located in a small area of land on the *makai* area of Ala Moana Boulevard. Mr. Lum believes ground disturbance will uncover trash and other refuse which has been previously buried and the runoff will carry the pollutants into the ocean.

> If they gonna dig up and do stuff, I think the runoff into the ocean cannot be stemmed the way they say it is. Because they can't be there with that mediation all the time permanently. That's what that wall was for. The guys that built the park, they were really smart. That's why it's not very high. There's this wall along the beach. It's a good bench. It serves a purpose. When the king tide comes, it actually saves our butts right now. They only have to plug up the holes, board it up, sand bag it. They were really smart. I hope they treat it as a useful historical feature.

He also believes the proposed reconfiguration of the Magic Island (Ala Wai Boat Harbor) Shared-Use Path will impact the fishermen who currently fish off the wall along the Ala Wai Boat Harbor.

> The idea is to put a boardwalk type of arrangement that extends out past the wall . . . The fishermen who fish in here, they already gave up the reef they used to fish off of, now, they got this little sliver along the wall to stand on. Perching themselves on a ledge of a window . . . and they fish for *halalū*, *pāpio*, stuff in here, every season . . . well they use this ledge and this wall to cast across this channel . . .

Mr. Lum is concerned that the proposed changes to AMRP will result in limited access to marine resources. He is concerned that AMRP will become similar to Waikīkī Beach in that traditional gatherers and fisherman will no longer be allowed to fish and/or access to fishing sites will be cut off.

> We no longer can walk on the beach in Waikīkī and fish. Because why? All of the beach is occupied now by Dave's Dive Shop, umbrellas over chaise lounges parked on the beach and occupying every inch of that beach. Now, that's a cultural impact . . . same thing will happen to Ala Moana. I used to catch *'oama* in Ala Moana, inside the break wall. Between the break wall and the beach. Early in the morning, I used to go there all the time.

Mr. Lum mentioned that the people who use AMRP are multigenerational. *Kama'āina* families come to the park to engage in various cultural practices, including fishing and gathering to supplement their diet. He stated that the rocky beach shoreline is a "passive classroom" where parents could share their *mana'o* (knowledge) about the ocean and its various resources with their *keiki* (children) (see Figure 1 through Figure 5). This type of education is understood as representative of *'āina*-based learning practices.

Mr. Lum believes that not enough detail was provided to the public regarding the extent of modifications to AMRP's shoreline. In particular, he emphasized that valuable and fragile aquatic ecosystems will be negatively impacted by any modifications to the shoreline. Shoreline modifications may cause irreversible damage to shell and aquatic resource gathering. He believes a definitive understanding of the ecosystems must be achieved to prevent negative disruption of those ecosystems.

> If you're going to do your survey in the day, and not nocturnal too. You not, you haven't even started [researching and understanding the entirety of the ecosystem] . . . if you swim around in the channel and you looking for it, fish have learned just like Hawaiians, if you stick your neck out, then you gonna get [caught]. They see you, they're gone.
>
> . . . The survey did not even scratch the surface of what is happening. It was a minimal, most token observation. All the scientific things were about quality of sand, depth, quality of water, all this stuff. Nothing about the ecosystem. Their comments on the ecosystem was not based on all the information that's there. It [survey] was only on the low hanging fruit.

Mr. Lum is opposed to the proposed sand replenishment and long-term beach nourishment. He is concerned that it will have an adverse impact on traditional gathering practices and the existing aquatic ecosystems that inhabit the area. It will also affect his ability to gather the treasured *pūpū o Ni'ihau*; these resources may be buried as a result of the proposed sand replenishment. Fragile aquatic ecosystems will also be disrupted by modifications to the shoreline and from runoff associated with construction activities. To prevent adverse impacts to marine resources, he believes that an in-depth study of the shoreline ecosystem must be undertaken and details regarding any potential adverse impacts must be provided to the public.

On 17 January 2019, CSH contacted Mr. Lum to clarify his concerns regarding the reconfiguration of the Magic Island (Ala Wai Boat Harbor) Shared-Use Path and the impacts to the fisherman-gatherers who currently fish off the wall along the Ala Wai Boat Harbor.

Mr. Lum stated that fishermen who fish off the wall, casting into Ala Wai Boat Harbor, use the method known as whipping. A basic whipping rig includes a long leader line attached to the hook. A leader line is additional line attached to the main fishing line. When fishermen cast their lines, they flick their line behind them before casting it into the water. Mr. Lum stated that people who are not paying attention while walking behind a fisherman casting their line are in danger of getting snagged by a hook. For decades, fisherman and other park users have co-existed in this area without any cause of concern. However, recent numbers of tourist and new arrivals using the shared-use path bordering the traditional Ala Wai Boat Harbor fishing grounds has increased dramatically.

Mr. Lum fears that reconfiguring the Magic Island Shared-Use Path will result in more congestion in the area from pedestrians, tourists, and other park users. He stated that tour buses currently park and unload their passengers in the area. Mr. Lum believes an increase in people around the areas where fishermen cast off into the water will result in increased danger of injuries to people unfamiliar with fisherman whipping and the hazard of lines and hooks in close proximity to non-fisherman using the newly configured shared use path. He also believes the proposed over-hanging walkway over the water will be detrimental to traditional fishing practices and access to the surrounding reef and waters. The proposed over-hanging walkway will potentially disrupt fishing as people in the area will be closer to the schooling fish and scare away the fish which the fishermen are trying to catch. Mr. Lum is also concerned

that the construction of the over-hanging walkway along the Ala Wai Boat Harbor will cut off the path that fisherman and gatherers use to access the reef.

Without adequate "stand-off" space between the fisherman whipping and the passive foot and wheeled traffic using the proposed reconfigured shared-use path, the potential for banning the traditional fishing practices now enjoyed by fisherman will increase as opposing park use purposes compete. Mr. Lum believes tourism and commercial purposes will yet again compete with the purposes of traditional park users.

Mr. Lum is concerned that the government will eventually restrict access to traditional gatherers and fishermen at AMRP. He recalled when he used to fish off the downtown piers near Pier 7. He stated that observers would not pay attention to the fishermen, creating a dangerous situation. As a result, the city put up signs restricting fishing from the piers in the area.

Mr. Lum stated that traditional gatherers face a "thicket of discouragements." He believes the Department of Land and Natural Resources (DLNR) blames fishermen for the depletion of the ocean's resources, ignoring the harsher impacts and effects of pollution on these resources. He mentioned that traditional gatherers and fishermen are reluctant to consume fish gathered from waters near the Ala Wai outlet for fear of contamination, since these fish feed on what exists in the highly polluted waters of the Ala Moana area. Smaller reef fish are known to contain pollutants and toxins like ciguatera and in turn they are eaten by the larger fish caught by Ala Moana fisherman.

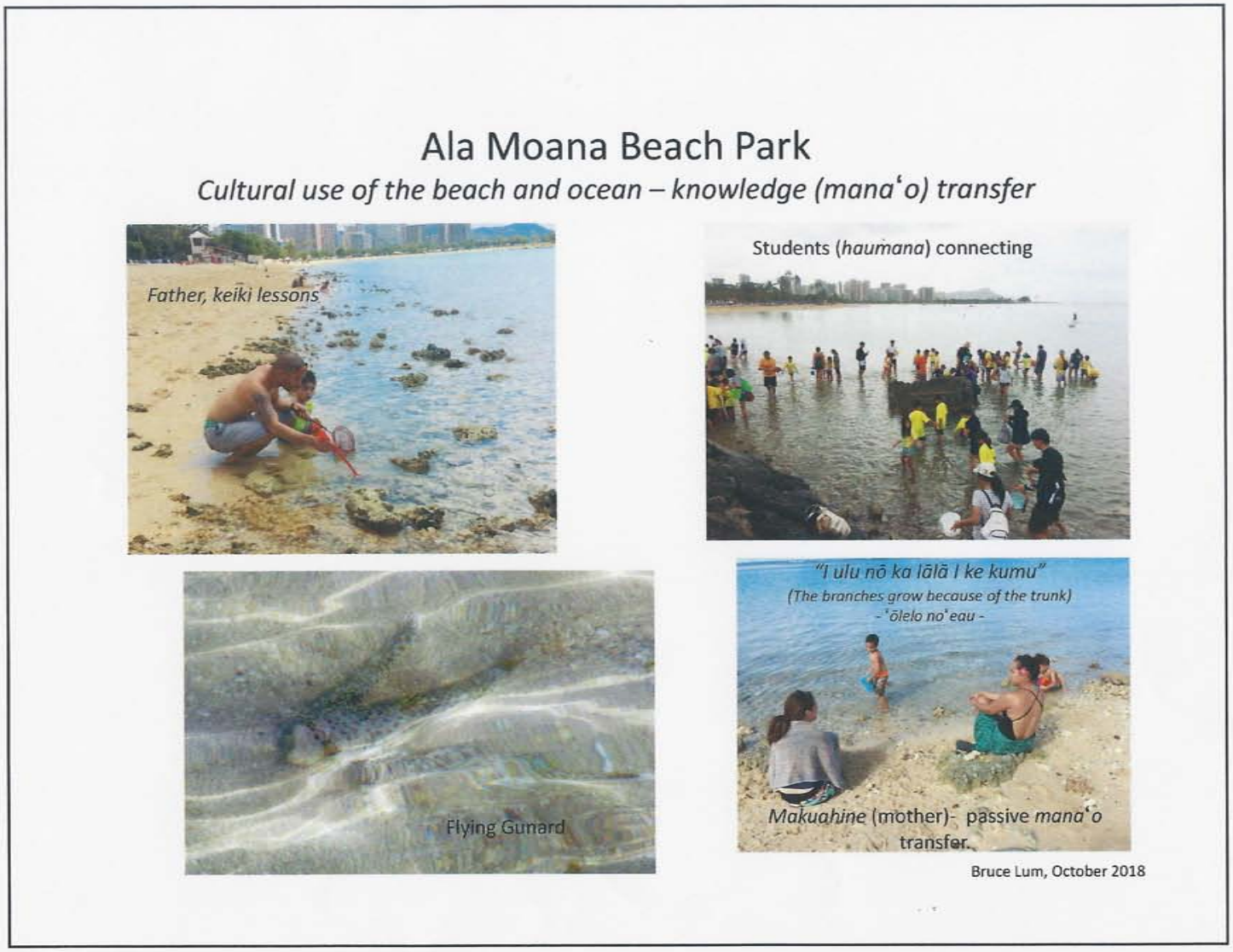


Figure 1. Park users enjoying the rocky beach shoreline at AMRP and engaging in *'āina*-based learning (photo courtesy of Bruce Lum 2018)

Figure 2. Multi-generational park users gathering and fishing at AMRP (photo courtesy of Bruce Lum 2018)

Figure 3. Multi-generational park users gathering and fishing at AMRP (photo courtesy of Bruce Lum 2018)

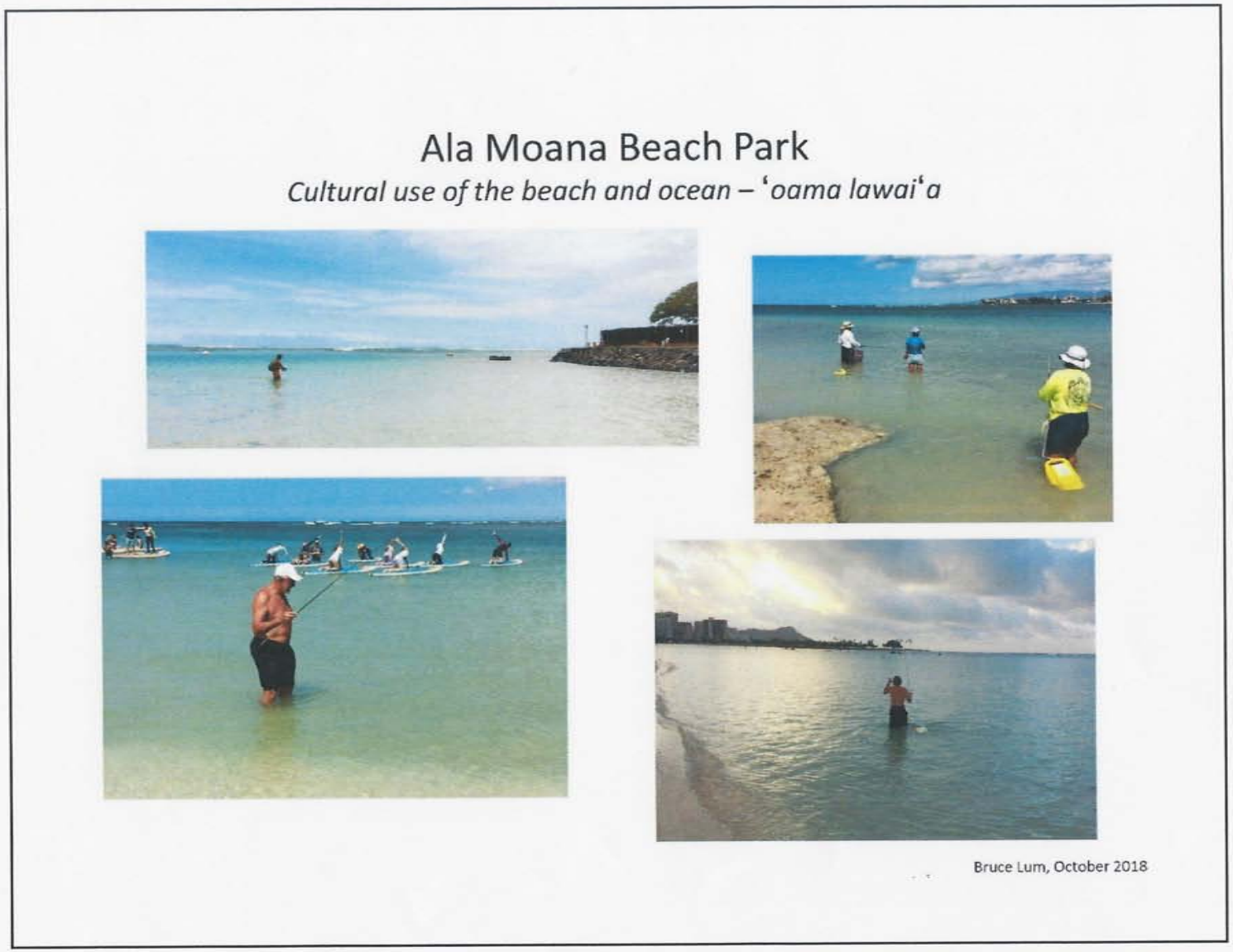


Figure 4. Park users fishing for *'oama* at AMRP (photo courtesy of Bruce Lum 2018)

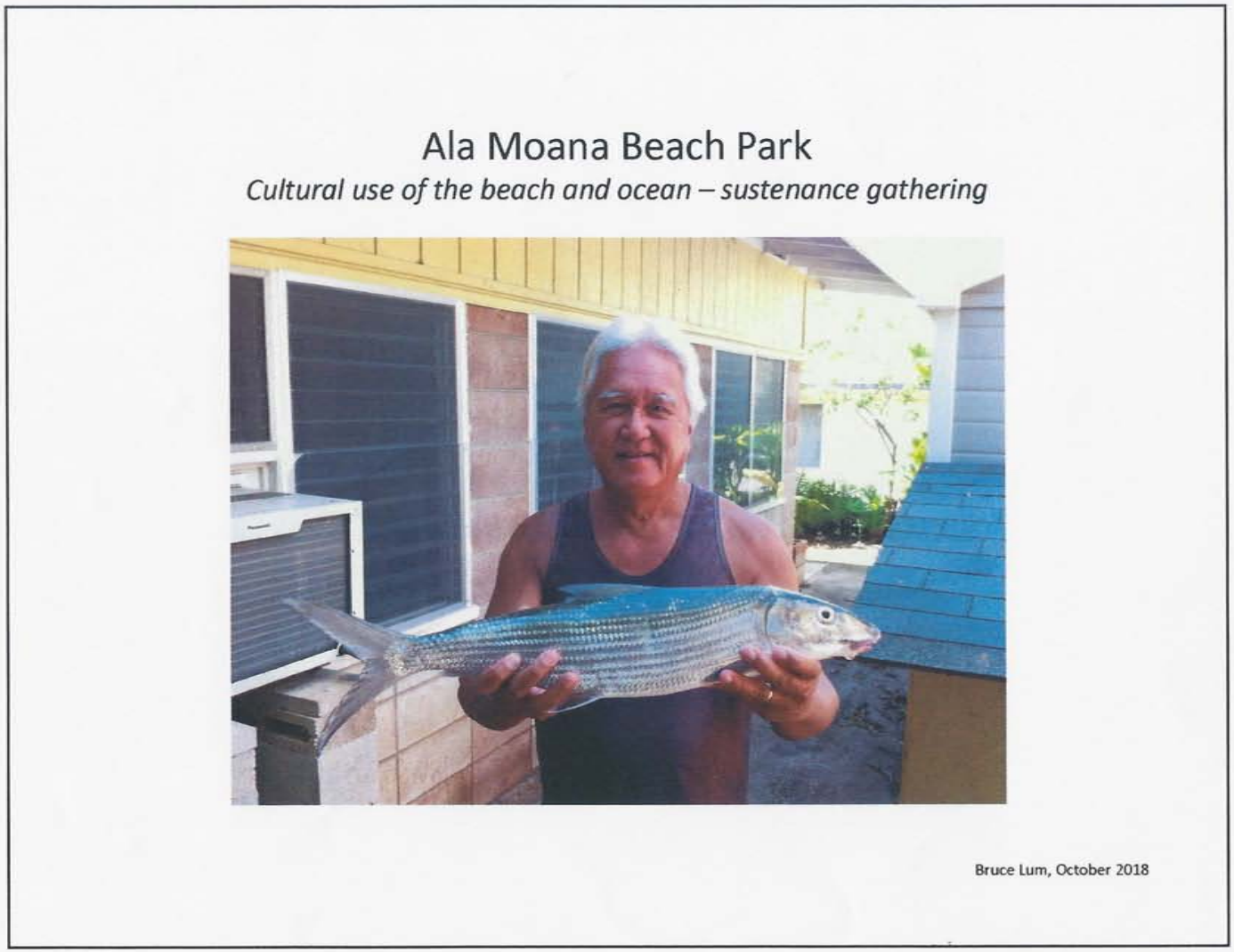


Figure 5. Mr. Lum with *ʻōʻio* caught at AMRP (photo courtesy of Bruce Lum 2018); the *ʻōʻio* was caught casting off the reef. Mr. Lum also fishes in the ʻEwa and Diamond Head ends of the beach because in certain seasons when the tide is lower, the fish come in toward the channel and the nearshore rocks to eat sand turtles and other crustaceans.

EXHIBIT B

Ordinance 18-46

CITY COUNCIL

CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

ORDINANCE 18-46

BILL 76 (2018), CD1

A BILL FOR AN ORDINANCE

RELATING TO PARKS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Purpose. The purpose of this ordinance is to maintain the existing recreational uses of Ala Moana Regional Park, ensure that the park is safe for park users, and preserve the enjoyment of the park for the largest number of park users.

SECTION 2. Prohibited improvements to Ala Moana Regional Park on the Makai side of Ala Moana Park Drive.

No improvements to Ala Moana Regional Park shall be made on the Makai side of Ala Moana Park Drive that will result in either:

(a) The widening of existing walkways; or

(b) The reduction of existing grassy areas.

A BILL FOR AN ORDINANCE

SECTION 3. This ordinance takes effect upon its approval.

INTRODUCED BY:

Ann Kobayashi

Carol Fukunaga

DATE OF INTRODUCTION:

September 27, 2018
Honolulu, Hawaii

Councilmembers

APPROVED AS TO FORM AND LEGALITY:

Deputy Corporation Counsel

APPROVED this _____day of _____, 20 _____.

KIRK CALDWELL, Mayor
City and County of Honolulu

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII
CERTIFICATE

ORDINANCE 18-46

BILL 76 (2018), CD1

Introduced: 09/27/18 By: ANN KOBAYASHI Committee: PARKS, COMMUNITY AND CUSTOMER SERVICES

Title: A BILL FOR AN ORDINANCE RELATING TO PARKS.

Voting Legend: * = Aye w/Reservations

10/03/18	COUNCIL	BILL PASSED FIRST READING AND REFERRED TO COMMITTEE ON PARKS, COMMUNITY AND CUSTOMER SERVICES. 9 AYES: ANDERSON, ELEFANTE, FUKUNAGA, KOBAYASHI, MANAHAN, MARTIN, MENOR, OZAWA, PINE.
10/16/18	PARKS, COMMUNITY AND CUSTOMER SERVICES	CR-336 – BILL REPORTED OUT OF COMMITTEE FOR PASSAGE ON SECOND READING AND SCHEDULING OF A PUBLIC HEARING AS AMENDED IN CD1 FORM.
11/03/18	PUBLISH	PUBLIC HEARING NOTICE PUBLISHED IN THE HONOLULU STAR-ADVERTISER.
11/14/18	COUNCIL/PUBLIC HEARING	CR-336 ADOPTED. BILL PASSED SECOND READING AS AMENDED, PUBLIC HEARING CLOSED AND REFERRED TO COMMITTEE ON PARKS, COMMUNITY AND CUSTOMER SERVICES. 9 AYES: ANDERSON, ELEFANTE, FUKUNAGA, KOBAYASHI, MANAHAN, MARTIN, MENOR, OZAWA, PINE.
11/21/18	PUBLISH	SECOND READING NOTICE PUBLISHED IN THE HONOLULU STAR-ADVERTISER.
11/27/18	PARKS, COMMUNITY AND CUSTOMER SERVICES	CR-378 – BILL REPORTED OUT OF COMMITTEE FOR PASSAGE ON THIRD READING.
12/05/18	COUNCIL	CR-378 ADOPTED AND BILL 76 (2018), CD1 PASSED THIRD READING. 7 AYES: FUKUNAGA, KOBAYASHI, MANAHAN, MARTIN, MENOR, OZAWA, PINE. 1 NO: ELEFANTE. 1 ABSENT: ANDERSON.

I hereby certify that the above is a true record of action by the Council of the City and County of Honolulu on this BILL.

GLEN I. TAKAHASHI, CITY CLERK

ERNEST Y. MARTIN, CHAIR AND PRESIDING OFFICER

ORDINANCE NO. 18-46

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

CERTIFICATE

I hereby certify that on December 7, 2018, Bill 76 (2018), CD1 was presented to the Honorable Kirk Caldwell, Mayor of the City and County of Honolulu, for his approval or otherwise; and that on December 21, 2018, the Mayor returned said Bill without his signature; therefore, pursuant to Section 3-203 of the Revised Charter of Honolulu, said Bill 76 (2018), CD1 became a duly enacted ordinance on December 21, 2018.

Dated, Honolulu, State of Hawaii, this 21st day of December, 2018.

CITY COUNCIL

By _____
ERNEST Y. MARTIN
Chair and Presiding Officer

ATTEST:

_____
GLEN I. TAKAHASHI
City Clerk

EXHIBIT C

Disclaimer Ordinance 18-46

EXECUTIVE SUMMARY

Pursuant to Ordinance 18-46, enacted December 21, 2018, projects that are described in the Proposed Action on the Makai side of Ala Moana Park Drive that will result in either (a) widening of existing walkways; or (b) reduction of existing grassy areas will not be allowed. During the review process of this Second Draft Environmental Impact Statement (SDEIS) the Ordinance will be evaluated to determine if any projects makai of Ala Moana Park Drive should be deleted in the Final Environmental Impact Statement (FEIS). Since all proposed projects have been evaluated as part of this SDEIS, the removal of certain projects will not result in adverse impacts on the environment.

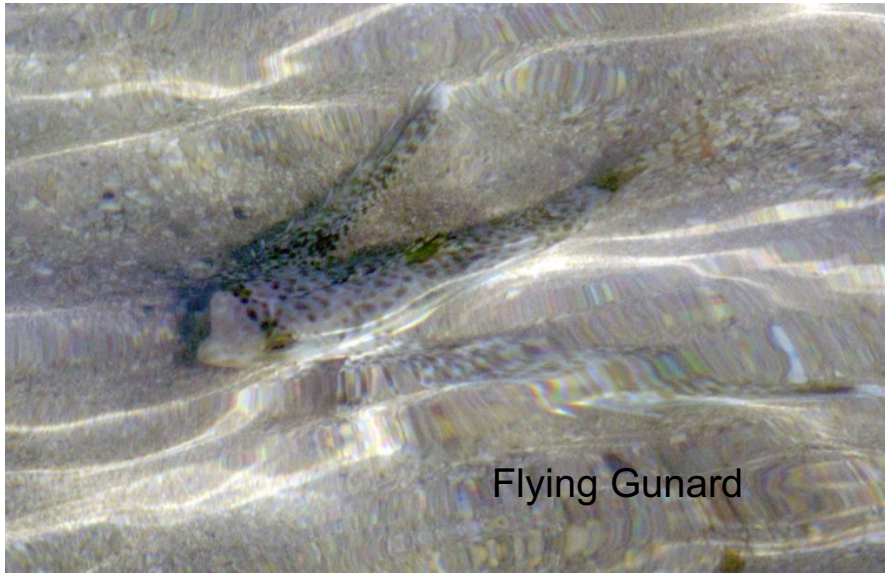
PROPOSING ORGANIZATION	City and County of Honolulu, Department of Design and Construction
ACCEPTING AUTHORITY	City and County of Honolulu, Mayor's Office
GENERAL PROJECT DESCRIPTION	The Proposed Action of this project is: • Add a dog park near Kewalo Basin; • Improve the pond edges and paths around the Hawaiian Pond and Japanese Pond; • Pi'ikoi Street and Queen Street pedestrian entrance expansions and partial drainage canal cover; • Repair drainage canal walls; • Reconfigure parking on the mauka side of Ala Moana Park Drive to add more stalls; • Rearranging the parking along the makai side of Ala Moana Park Drive to add loading and unloading zones near crosswalks; • Keyhole parking lot expansion and reconfiguration; • Reconfigure and expand Magic Island parking lot; • Widening the shared-use path along the makai side of Ala Moana Park Drive; • Repair Roosevelt Portals at Atkinson Street entrance; • Improve the Kamakee Street entrance; • Repair the Bridle Bridge; • Widening the shared-use path along the Ala Wai Small Boat Harbor; • Improve the existing canoe launch ramp and crossing from the Canoe Hālau; • Renovate McCoy Pavilion and the banyan courtyard; • Improve "high spot" terrace for ADA access, repair pergola, and widen the shared-use paths on both sides; • Sand replenishment and long-term beach nourishment;

EXHIBIT D

Shoreline Uses

Ala Moana Beach Park

Cultural use of the beach and ocean – knowledge (manaʻo) transfer



Bruce Lum, October 2018

Ala Moana Beach Park

Cultural use of the beach and ocean – sustenance, practice, preserve

Bruce Lum, October 2018

Ala Moana Beach Park

Cultural use of the beach and ocean – gathering/fishing

Bruce Lum, October 2018

EXHIBIT E

Act 50 & Hawai‘i Constitution Protections

Guidelines for Assessing Cultural Impacts

Adopted by the Environmental Council, State of Hawaii
November 19, 1997

I. INTRODUCTION

It is the policy of the State of Hawaii under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making.

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

II. CULTURAL IMPACT ASSESSMENT METHODOLOGY

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment. An ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua'a and the geographicalextent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

If the subject area is in a developed urban setting, cultural impacts must still be assessed. Many incorrectly assume that the presence of urban infrastructure effectively precludes consideration of current cultural factors. For example, persons are known to gather kauna"oa, "ilima, "uhaloa, noni or ki on the grassy slopes and ramps of the H-1 freeway and some state highways on the neighbor islands. Certain landmarks and physical features are used by Hawaiian navigators for sailing, and the lines of sight from landmarks to the coast by fisherman to locate certain fishing spots. Blocking these features by the construction of buildings or tanks may constitute an adverse cultural impact.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

(1) identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a;

(2) identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;

(3) receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;

(4) conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;

(5) identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and

(6) assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of theinformant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials, published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

III. CULTURAL IMPACT ASSESSMENT CONTENTS

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§§§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.

2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.

3. Ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.

4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.

5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.

6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.

7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project.

8. An explanation of confidential information that has been withheld from public disclosure in the assessment.

9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.

10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.

11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call 586-4185.

You may ask OEQC if a directory of cultural impacts assessment providers is available.

THE SENATE
TWENTY-SIXTH LEGISLATURE, 2011
STATE OF HAWAII

S.B. NO. 987

A BILL FOR AN ACT

RELATING TO ENVIRONMENTAL IMPACT STATEMENTS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. Act 50, Session Laws of Hawaii 2000, amended chapter 343, Hawaii Revised Statutes, to require that environmental impact statements assess the effects of a proposed action on the cultural practices of the community and State.

Act 50 specifically acknowledged the State's responsibility to protect native Hawaiian cultural practices. Act 50 states:

> The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the "aloha spirit" in Hawaii. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

For example, article IX, section 9 of the state constitution gives the State the power to "preserve and develop the cultural, creative and traditional arts of the various ethnic groups." Article XII, section 7 of the state constitution requires the State to "protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a

tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the State to regulate such rights."

Act 50 also states:

> Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

More than ten years after the enactment of Act 50, the legislature finds that the State's environmental impact statement law still does not adequately protect constitutionally protected native Hawaiian traditional and customary rights. Act 50 did not provide requirements for assessing cultural impacts, nor does the term "cultural impact assessment" exist within the Hawaii Revised Statutes. Despite its clear intent, Act 50 amended chapter 343 without specifying that the cultural practices to be assessed in an environmental impact statement are native Hawaiian. Nor did the amendments specify that a significant effect would be found if there was an adverse effect on native Hawaiian cultural practices. None of these amendments addressed the legislature's findings of Act 50, which included the need to assess impacts on the native Hawaiian culture, because of the need to perpetuate that specific culture. Therefore, the problems that the legislature found in 2000 remain.

The purpose of this Act is to amend chapter 343, Hawaii Revised

Statutes, to require that environmental assessments and environmental impact statements include cultural impact assessments that assess impacts and effects on native Hawaiian culture.

SECTION 2. Chapter 343, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"**§343- Cultural impact assessment.** (a) All draft and final environmental assessments and environmental impact statements shall include a cultural impact assessment.

(b) A cultural impact assessment shall include:

(1) The identification and description of cultural practices, including native Hawaiian traditional and customary rights protected pursuant to article XII, section 7 of the state constitution; cultural, historic, and natural resources; and cultural sites including archaeological and burial sites, in the ahupua'a in which an action is proposed;

(2) An assessment of and mitigation measures for the effects the proposed action may have on cultural practices, including native Hawaiian traditional and customary rights protected pursuant to article XII, section 7 of the state constitution; cultural, historic, and natural resources; and cultural sites, including archaeological and burial sites;

(3) A review of all plans, including mitigation plans and burial treatment plans, surveys, reports, and other relevant documents that are required for the proposed action pursuant to rules adopted by the department of land and natural resources under chapter 6E; provided that all requisite documents shall be approved or accepted as required by the department of land and natural resources prior to being included in the review under this subsection;

(4) A review of ethnographic and oral history studies and primary and secondary source materials; and

(5) Documentation of the public consultation conducted for the cultural impact assessment.

(c) The public shall be notified of and consulted in the preparation of a cultural impact assessment, as follows:

(1) At least one public meeting shall be held in the community of the proposed action;

(2) Interviews with individual community members and cultural practitioners shall be conducted;

(3) The cultural impact assessment, as a part of a draft or final environmental assessment or

environmental impact assessment, shall be made available for inspection by the public pursuant to section 343-3; and

(4) The public shall be allowed to review and comment on the cultural impact assessment as a part of the public comment process pursuant to section 343-3.

(d) The approval by the office of Hawaiian affairs of a cultural impact assessment shall be a condition precedent to acceptance of an environmental assessment or statement.

(e) The council shall adopt rules, pursuant to chapter 91, that prescribe the contents and procedures for a cultural impact assessment."

SECTION 3. Section 343-2, Hawaii Revised Statutes, is amended by adding a new definition to be appropriately inserted and to read as follows:

""Cultural impact assessment" means a document that discloses the effects of a proposed action on native Hawaiian cultural practices and sites."

SECTION 4. The provisions of this Act shall not apply to environmental assessments or environmental impact statements that have been announced as available for public review through the office of environmental quality control's periodic bulletin pursuant to section 343-3(d), Hawaii Revised Statutes, prior to the effective date of this Act.

SECTION 5. New statutory material is underscored.

SECTION 6. This Act shall take effect upon its approval.

INTRODUCED BY: _____
By Request

Report Title:
Environmental Impact Statements; Cultural Impact Assessments; OHA

Description:
Requires all environmental assessments and environmental impact statements to include a cultural impact assessment. Requires OHA's approval of cultural impact assessments.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

EXHIBIT F

Shell Gathering Invitation Non-Acceptance

and no mitigation is proposed." demonstrates that studies were over-simplified and under-whelming in representing what the reality is about how important Ala Moana Park is to the native local population of Hawai'i.

Fishing practice:
My methods of fishing are pole or line and reel, spear, and small net fishing. Besides fishing to supplement consumption, I also gather various marine fish and creatures for use as bait, that includes oama, balywhoo, various juvenile fishes, eels, octupus shrimps, reef fish, shell fish and even types of limu.

Shell gathering practice:
For gathering of shells, I depend on the wash of the tides to transport, sort and expose what I gather on the shoreline. Gathering is practiced by a handful of us who have been gathering at Ala Moana Park for decades. Because the shells that we gather are highly prized, we keep the location and best collection times a "trade secret" for concerns of depletion by over harvesting and abuses. In the interest of validation, I am open to demonstrating this gathering practice at Ala Moana Park to a DEIS official or researcher. The shells that I gather throughout the year at Ala Moana Park includes the following:

<u>Shells of Ni'ihau</u>
Scientific Descriptions of by E. Alison Kay

Euplica varians - Momi
These columbellids are abundant, found on rocks in tide pools, in shallow water shoreward of fringing reefs.

Mitrela margarita - Laiki
These shells are often found in beach drift, but appear to live in deeper water than do either the Anachis miser or Euplica varians.

Leptothyra verruca – Kahelelani
These turbans are abundant on the under rocks and rubble in tide pools and on solution benches and fringing reefs.

I oppose the continuation of any sand replenishment or beach nourishment actions until more reliable and representative studies and observations can be done. The survey of aquatic marine organisms is lacking from too narrow a focus and scope. For instance, the marine environment studies only collected data and during a very narrow window of opportunity and did not recognize the natural survival habits of fish etc. that hid to avoid the contractor's swimmer observers. Also glaring absent was any observation done at anytime during the night time hours to register and record nocturnal food fishes that native gathers practice harvesting. My concerns are high for the following reasons:

- Existing ecosystem impacts
- Traditional gathering impacts

of rubble zone habitat was estimated in the coastal report as being about 4% of the total habitat in the nearshore waters.

Fishing Practice

We acknowledge your fishing method and practices at the AMRP.

Shell Gathering Practice

We acknowledge your shell gathering method and practices at AMRP and you have stated that the location where this cultural practice takes place along AMRP's shoreline is a "trade secret". We would be happy to work with you to resolve your concern. Please feel free to send us additional information regarding the site where the cultural practice takes place so we can evaluate the site condition and address mitigation for this concern.

2.3.5 Parking

We acknowledge your comment that you oppose adding 234 parking stalls and that there are other options that should be reviewed and your comment that the DEIS does not present justification to warrant increasing the parking stalls 25.6% and 100% over the Parking Occupancy Study. The Fehr's and Peers Parking Occupancy study concluded the roadway network can accommodate the project's traffic to year 2028 and that only 113 new parking spaces would be needed in the park if Ala Moana Boulevard street parking is to remain. The study counted the 64 on-street parking stalls along Ala Moana Boulevard as part of the available inventory. A higher number of stalls was not recommended by the parking study as it projected that more park users will walk, bike or use transit as the urban core develops around the proposed transit stations. However, the report does not consider that the 64 on-street parking stalls on Ala Moana Boulevard are only available on the weekend and it is does not identify if only park users occupy these stalls during that time. The parking occupancy study was taken on a typical weekday with a weekend that did not include a large permitted activity. Out of 52 weeks in a year, the park has 41 weeks of permitted activities with over 200 participants.

When the City designs parking lots for City parks, we do not limit ourselves to the effective capacity percentage of a traffic study, since the projections and assumptions of these reports may never materialize and that would leave our facilities with a deficiency with no opportunities in the future to amend the situation due to the high costs associated to revisit the issue. Land is the most limiting factor in designing parking lots in City parks. In all City parks, we design parking lots to ensure programmed green spaces are not sacrificed and we reduce a park's impact to its surrounding community. In the case of AMRP, the large expanses of green space are highly coveted by DPR and thus, any proposed parking stalls were relegated to areas already designated as parking areas. The master plan addressed these challenges by concentrating the additional stalls into existing parking areas. It is prudent for any proposed improvement to consider how best to maximize a parking layout design since the costs for such infrastructure improvements is substantial. Enlarging existing parking lots is costly. The upfront costs for design and construction does not change drastically on a capital improvement project when the project involves existing infrastructure. The parking layouts presented in the DEIS are conceptual. The number of spaces actually constructed may change as designs are finalized.

Bruce Lum
99-546 Iwaiwa Street • Aiea, Hawaii 96701
Phone: (808) 237-9120 • email: brlum@mac.com

September 30, 2019

Robert J. Kroning, P.E., Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

SUBJECT: Reply to your response to August 22, 2018 and March 25, 2019 commenting on the First and Second Draft Environmental Impact Statements (DEIS) for the Ala Moana Regional Park (AMRP) and Magic Island Improvements.

Aloha Mr. Kroning,

Mahalo for your response letter of August 05, 2019 in regards to my 1st and 2nd DEIS comments. I am specifically responding to the underlined request, in your response, cited as follows:

Shell Gathering Practice

"We acknowledge your shell gathering method and practices at AMRP and you have stated that the location where this cultural practice takes place along AMRP's shoreline is a "trade secret". We would be happy to work with you to resolve your concern. <u>Please feel free to send us additional information regarding the site where the cultural practice takes place so we can evaluate the site condition and address mitigation for this concern</u>."

My response is that the offer I made in my 1st DEIS comments still stands. The offer I made for an on-site demonstration is underlined in my quoted comment that follows:

Shell gathering practice

"For gathering of shells, I depend on the wash of the tides to transport, sort and expose what I gather on the shoreline. Gathering is practiced by a handful of us who have been gathering at Ala Moana Park for decades. Because the shells that we gather are highly prized, we keep the location and best collection times a "trade secret" for concerns of depletion by over harvesting and abuses. In the interest of validation, <u>I am open to demonstrating this gathering practice at Ala Moana Park to a DEIS official or researcher."</u>

The gathering conditions and method of my shell gathering is highly iterative and too complex to efficiently and effectively put into words. It is traditional, in Hawaiian practice, to "show" vs. explain, or to put in writing how shell gathering is done. Hawaiian culture is based on oral vs. written knowledge, and cultural knowledge keepers, like myself, continue this practice today.

Bruce Lum
99-546 Iwaiwa Street • Aiea, Hawaii 96701
Phone: (808) 237-9120 • email: brlum@mac.com

Both draft EIS's and FEIS for the Ala Moana Regional Park and Magic Island Improvements Tax Map Key: (1) 2-3-37:001, 002, 022, 023, 025 Honolulu, Oahu, Hawaii did not provide design details adequate enough for me to tell how discriminate the beach sand nourishment and replenishment would or would not be. I am still wanting to know how much of the new sand, placed on the current beach, will extend into the submerged, rocky habitats near the current shoreline. How much height will the new sand placement add over-and-above the height of the sand currently found on the beach?

In the interview for the Cultural Impact Statement (CIA), done by Cultural Survey Hawaii (CSH), I did state that, "These *pūpū* (shells) are *nā mea huna makamae* (treasured secrets)". My statement is in both the 2nd DEIS and FEIS, on page 184 of the CSH interview report found in CIA of Appendix D-3. I explained the kind of gathering I and others do in AMRP, and what the potential impacts could be from the proposed sand replenishment and beach nourishment. After the last beach nourishment in the 1970's it took years of recovery before Ni'ihau shell gathering returned to normal at AMRP.

I look forward to showing you, and a qualified person, how and where *nā mea huna makamae* can be found and gathered as Hawaiians have done since ancient times... except this demonstration will be at Ala Moana Beach Park. I suggest that my demonstration of the gathering be video and audio documented by whoever witnesses my demonstration.

Mahalo piha,

Bruce Lum

cc: Mayor Kirk Caldwell
Elaine Morisato, Department of Design and Construction
Joanne Hiramatsu, Belt Collins, LLC
Scott Glenn, Director, Office of Environmental Quality Control

EXHIBIT G

LINDA MORIARITY N‘IHAU SHELL LEIS BOOK

APPENDIX B

sus passes. In some species the two valves of the shell are similar (equivalve); in others the two valves are quite different (inequivalve). The external surface of the valves is usually radially ridged and often tinted with bright colors.

1. *Chlamys irregularis* (Sowerby, 1842). The valves, often more than 30 mm in height and 27 mm in diameter, are subcircular, thin, barely inflated, and inequivalve. They are white to yellow, variegated with red and brown blotches; the interior is rose or yellow, with darker spots. These pectens are uncommon, found at depths of 12 to 150 m. *C. irregularis* was described from "Eastern Seas" and may be found elsewhere in the Pacific in addition to Hawaii.

2. *Haumea juddi* (Dall, Bartsch and Rehder, 1938). In these pectens the valves, 19 mm in height and 18 mm in length, are subcircular, moderately solid, and distinctly inequivalve. The right valve is white with a reddish spot at the umbo: the left valve is mottled and banded with red brown. They are common to abundant at depths of from 8 to 100 m. *H. juddi* was described from the Hawaiian Islands.

APPENDIX B

NI'IHAU SHELL LEIS IN MUSEUM COLLECTIONS

Bernice P. Bishop Museum
P.O. Box 19000-A
Honolulu, HI 96817

HH 111, HH 272, HH 273, HH 274, HH 278, HH 464 (640), HH 465 (641), HH 645, HH 646, HH 647, HH 648, HH 1109, HH 1514, 270.03, 1345, 6770

Daughters of Hawaii
Hulihe'e Place
P.O. Box 1838
Kailua-Kona, HI 96745

1571

Field Museum of Natural History
Roosevelt Road at Lake Shore Drive
Chicago, IL 60605

272604

Kauai Museum
Lihue, HI 96766

1985.271, 1985.272, 1985.273, 1985.274, 1985.275

Lyman House Museum
276 Haili Street
Hilo, HI 96720

85.7.3, 00.1512, 00.1658, 00.1661

Museum of Archaeology and Anthropology
University of Cambridge
Downing Street
Cambridge CB2 3DZ, U.K.

27.1638, 27.1639

Museum of Mankind
Ethnology Department of the British Museum
Burlington Gardens
London WIX 2EX, U.K.

HAW 122, Q77 Oc.4, Q80 Oc.961, Q80 Oc.962, Q80 Oc.963, Q80.964, Q80 Oc.965, Q80 Oc.977, Q80 Oc.978, VAN 277 a and b, VAN 278

Peabody Museum
Harvard University
11 Divinity Avenue
Cambridge, MA 02138

D-2934, 37.646, 86-14(47746)

Peabody Museum of Salem
East India Square
Salem, MA 01976

E 16.783, E 16.872, E 16.874, E 21.510, E 34.695, E 35.455

EXHIBIT H

OHA RESPONSE LETTER

PHONE (808) 594-1888

FAX (808) 594-1938

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAI'I 96817

HRD19-8413D

March 4, 2019

Robert Kroning
Director
Department of Design and Construction
650 S. King Street, 11th Floor
Honolulu, HI. 96813

Re: Second Draft Environmental Impact Statement
Ala Moana Regional Park and Magic Island Improvements
Honolulu and Waikīkī Ahupua'a, Kona Moku, O'ahu Mokupuni
Tax Map Keys: (1) 2-3-037:001, 002, 022, 023, and 025

Aloha e Mr. Kroning,

The Office of Hawaiian Affairs (OHA) is in receipt of your February 7, 2019 letter inviting OHA to review the February 2019 Second Draft Environmental Impact Statement (SDEIS) for the Ala Moana Regional Park (AMRP) and Magic Island Improvements. Belt Collins Hawaii LLC has prepared the SDEIS on behalf of the City and County of Honolulu (C&CH) pursuant to Hawai'i Revised Statutes (HRS) Chapter 343. The SDEIS was done in reaction to comments received on the first 2018 EIS and has been edited to now include: a Cultural Impact Assessment (CIA); information regarding an offshore sand source for beach nourishment; and, discussions on the proposed playground.

As stated in the SDEIS, proposed improvements are needed to accommodate anticipated volume of visitors with the projected population growth of Hawai'i residents. Facilities that are aging and deteriorating also require repair and the beach itself needs re-nourishment as wave action has eroded sand into the swim channel. To address these issues, the proposed action includes: sand replenishment and long-term beach nourishment, expanding pedestrian entrances at Pi'ikoi Street and Queen Street, improving pond edges and paths, rearranging and reconfiguring parking areas, renovating the McCoy Pavilion and banyan courtyard, adding a dog park, constructing a playground, and constructing a mutli-use facility at the Lawn Bowling area. OHA has the following comments on the SDEIS divided by relevant sections:

1.3 Purpose and Need

First, OHA would like the C&CH to consider how the proposed actions are collectively meeting policies for "open spaces" established in the 2016 *Ala Moana Neighborhood Transit-Oriented Development Plan* (TOD Plan). Collectively, the many proposed improvements could have a rather large footprint that is not readily apparent. Subsequently, the square footage of each improvement should be fully detailed and compared to existing open space square footage so that readers are aware of how much open space is actually being lost. The first policy of the TOD Plan details the maximization of existing open spaces by improving existing facilities and preserving existing open spaces. However, the current SDEIS does not discuss how much open space is being lost due to new improvements nor does it appear that open space preservation is a priority. Also, a few existing buildings are being planned for relocation as opposed to being improved without any analysis on why effective reuse cannot be achieved.

Preserving these open spaces is a community benefit allotted to balance the increased density brought on by transit oriented development projects. Maintaining this purpose and balance is crucial to Native Hawaiians who have used Ala Moana beach for recreation, cultural gathering practices, and events for many years. A discussion should also be included on how public open spaces can be compensated or improvements scaled back in the event the Honolulu rapid rail transit does not make it to Ala Moana for whatever reason. So far, the over confidence in the Honolulu rapid rail transit project allows transit oriented development projects to continue with the assumption of rail completion to Ala Moana without planning for any other scenario. Without the Honolulu rapid rail transit, the AMRP project's purpose and even the 2016 TOD becomes questionable.

Second, recently enacted Revised Ordinances of Honolulu (ROH) 18-46 states that no improvements shall be made on the makai side of Ala Moana Park Drive that will result in either the widening of existing walkways or the reduction of existing grassy areas. The purpose of the ordinance is to maintain the existing recreational uses of AMRP. The C&CH does acknowledge this recently enacted ordinance with the inclusion of a paragraph recognizing it in the SDEIS Executive Summary. OHA concurs that any proposed improvements that are non- compliant with this ordinance shall be removed from the project and deleted from the Final EIS. Given OHA's concerns regarding the preservation of open space, the project purpose should directly show cohesion with the 2016 TOD and an attempt to honor the intent of ROH 18-46. Thus, any rethinking of improvements or scaling back the project would also be welcomed.

2.3.1 Dog Park

From discussions with Native Hawaiian beneficiaries who are concerned about public health and enforcement of existing Ala Moana beach park prohibitions, it is apparent that there is concern regarding the inclusion of a dog park. According to the Hawaiian Humane Society website, Ala Moana beach is listed as a "no dogs allowed" beach.[1] This is in accordance with established Revised Ordinances of Honolulu. Beneficiaries reported to OHA that enforcement of this prohibition is poor and that dog waste is discouraging shell gathering on the beach. Considering the prohibition, OHA urges the C&CH to reconsider the inclusion and impacts of the dog park as enforcement of a "no dogs allowed" prohibition is poor and there are no protocols for

[1]See https://www.hawaiianhumane.org/dog-friendly-beaches/

clean-up should dogs defecate on the beach. OHA cannot ignore this issue as we are concerned about the public's health and the ability of Native Hawaiians to freely engage in cultural gathering activities on a healthy beach. Abuse of the current prohibition will likely be made worse by the inclusion of the dog park.

2.3.14 Sand Replenishment and Long-Term Beach Nourishment

One of the proposed AMRP improvements is to include sand replenishment and long-term beach nourishment. Ala Moana beach and four donor sand locations were assessed by Sea Engineering Inc. in 2018 for overall water quality, sand compatibility, marine flora and fauna composition, and existing activities (i.e., recreational uses, surfing).[2] Minimal impacts are detailed within the SDEIS regarding water quality, juvenile fish habitats, seagrass abundance, and endangered species activities. However, OHA questions whether the frequency of sampling and surveying that took place is adequate for the current project. As detailed in the Sea Engineering Inc report, sampling only occurred for Ala Moana beach on a single day, April 20, 2018. The donor sites were analyzed in mid-November without a specific date being provided.

Some academic articles have critiqued marine sampling methods that have limited sampling frequencies.[3] Primarily, it appears that seasonal variations are not accounted for when sampling only occurs at a single or limited period of time. Native Hawaiians interviewed during the cultural impact assessment (CIA) for the SDEIS also noted that fish patterns are dependent on the time of year and tide. Given that the current Sea Engineering Inc report only details very limited sampling times, additional sampling may be needed to provide a more accurate picture of impacts to water quality and marine life. The effects of seasonal variability should be included within the SDEIS.

According to the *Hawaii Coastal Erosion Management Plan* (COEMAP) published by the Coastal Lands Program of the Department of Land and Natural Resources, all sand nourishment projects should be monitored by the state. However, the C&CH does not include any mention of a state monitoring program to assess whether projected impacts to water quality and marine life are accurate. As noted within the COEMAP, monitoring data could help to evaluate beach restoration performance criteria and long-term potential of the nourishment initiative. Subsequently, OHA recommends the inclusion of monitoring protocols within the SDEIS for beach nourishment actions so that long-term effects to water quality and marine life can be better understood and minimized. Native Hawaiian beneficiaries interviewed during the CIA for this project have also expressed a concern for the long-term effects of beach nourishment. Monitoring results should be made available to the public for critique and comment.

3.9 Parking

From discussions with Native Hawaiian beneficiaries, there are apparent concerns regarding the safety of converting parallel parking stalls to perpendicular stalls. Beneficiaries note

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[2] 2018. Marine Research Consultants Inc. *Baseline Assessment of the Marine Environment Ala Moana Regional Park Beach Replenishment Donor Sites, Honolulu, Hawaii*. Prepared for Sea Engineering, Inc.

[3] 2001. Lecaster, Molly K.; and, Weisberg, Stephen B. Effect of Sampling Frequency on Shoreline Microbiology Assessments. Marine Pollution Bulletin, Vol 42, Issue 11, pp1150-1154.
1996. Edited by Deborah Chapman. *Water Quality Assessments – A Guide to Use of Biota, Sediments and Water in Environmental Monitoring*, 2nd Edition. Prepared by F&FN Spo for the World Health Organization.

that large vehicles (i.e., trucks, vans) often used by beach goers might have a difficult time getting into these spaces and be forced to reverse in. This in turn may increase traffic and the occurrence of accidents.

In a comparative study conducted by the Oregon Department of Transportation (ODOT), ODOT analyzed crash rates in many cities across the country and how they may be impacted by parking space geometry.[4] On non-busy streets, crash rates were 50% to 70% lower for parallel type spaces. The study concluded that while perpendicular (angle) parking clearly has a higher crash rate and frequency, increased activity of parking has a greater overall impact on the crash rate. Considering that the increase in parking spaces proposed at AMRP is being done to accommodate higher occupancy, C&CH should be trying to find the safest and most efficient way possible to improve parking. OHA recommends that a discussion on the safety of either type of space geometry be included within the SDEIS and that the C&CH's determination of no significant parking impact be reassessed.

4.4.2 Archaeology

In OHA's comment letter dated August 10, 2018 regarding the first EIS, we recommended that an archaeological inventory survey (AIS) with subsurface testing be conducted prior to any ground disturbing activity due to the possibility of encountering iwi kūpuna and cultural deposits. Historic photos and maps provided in Appendix D-2 of the original EIS showed that the project area overlies portions of the original shoreline.[5] The maps further showed the presence of house sites and taro fields near the shoreline. Although a majority of the project area consists of subsurface dredge and fill material, OHA maintains that this shoreline overlap area near Ala Moana Boulevard should undergo subsurface testing. Currently, no AIS or subsurface testing is proposed for the current project; thus, OHA is not confident with the determination of no historic properties effected.

4.4.4 Cultural Resources

In OHA's comment letter dated August 10, 2018 regarding the first EIS, we recommended that a CIA be completed in accordance with the Office of Environmental Quality Control's *Guidelines for Assessing Cultural Impacts*. OHA acknowledges and thanks the C&CH for the inclusion of the CIA in the SDEIS. However, OHA observes that although interviews with Native Hawaiians were conducted, it appears many of their concerns are not being addressed.

For example, one beneficiary noted the presence of Ni'ihau shells along parts of Ala Moana Beach that are frequently collected by cultural practitioners. However, in the discussion of impacts to cultural resources (Section 4.4.5.3), there is no mention of how replenishing the sand might impact this cultural gathering practice. OHA recommends that a discussion be included describing how this gathering practice will be impacted and any needed mitigation. In another example, one Native Hawaiian beneficiary also expressed concern over fisherman access being affected by widening the shared-use path at Magic Island. However, this concern of fisherman access is not

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[4] 2001. Oregon Department of Transportation. *Safety Comparison of Angle and Parallel Parking.*

[5] O'Hare, Constance R; Shideler, David W; and, Hammatt, Hallet H. 2017. *Draft Literature and Field Inspection with Cultural Section for the Ala Moana Regional Park Master Plan Waikīkī Ahupua'a, Honolulu (Kona) District, Oahu TMKs: [1]2-3-037:001, 022, 023 and 025.* Prepared for Belt Collins Hawaii LLC by Cultural Surveys Hawai'i, Inc.

even discussed in the potential impacts to cultural resources (Section 4.4.5.3) of the SDEIS. As previously pointed out, another example is where one Native Hawaiian expressed concern over long term impacts of beach nourishment, yet no follow up monitoring was discussed.

Many Native Hawaiians who have participated in a variety of environmental reviews and CIA's can be discouraged from participating in other projects when it appears their concerns aren't being adequately addressed. This SDEIS appears to be no different as Native Hawaiian beneficiaries who participated in the CIA for the AMRP SDEIS have come to OHA to express that they felt ignored. After OHA's internal review of the SDEIS and CIA, OHA found several examples of cultural concerns being overlooked and not discussed. OHA thus recommends that the C&CH take a closer look at all the knowledge that was shared during the CIA interviews and make a greater effort to validate and address Native Hawaiian concerns.

In consideration of these comments, OHA believes that the "Restore" alternative detailed in Section 2.7.2 may be a more effective utilization of State funds and in-line with the 2016 TOD, and intent of ROH 18-46. To many, AMRP is already "world class" and does not need to be augmented with unnecessary improvements (i.e., "world class playground", dog park). We look forward to reviewing a revised SDEIS and participating in future discussions. Should you have any questions, please contact me at (808) 594-1769, or by email at kamanaoc@oha.org, or you can have your staff contact our Lead Compliance Specialist, Kamakana C. Ferreira, at (808) 594-0227, or by email at kamakanaf@oha.org.

'O wau iho nō me ka 'oia 'i'o,

Kamanaiopono Crabbe

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:kf

CC: Mayor Kirk Caldwell, City and County of Honolulu
Joanne E. Hiramatsu, Director of Planning, Belt Collins Hawaii LLC
Elaine Morisato, City and County of Honolulu, Department of Design and Construction

EXHIBIT I

EIS §4.5.7.3_ENDANGERED SPECIES ACT OF 1973

Courtyard and McCoy Pavilion. Possible replacement trees could be trees that are better suited for sites near buildings. Removing these trees may cause temporary construction impacts such as temporary closure of the courtyard, noise and, dust. Proposed mitigation is to replace the banyans with a species that is more conducive to areas near buildings. The removal of the existing trees will allow for renovations and restoration of the courtyard area and the pavilion. The contractor overseeing the removal should exercise caution by not causing damage to the surrounding buildings or their foundation.

Additionally, non-native species are common in the survey area. The following recommendations are to minimize invasive species introduction: all construction equipment/vehicles arriving from outside Oʻahu should be washed and inspected; all construction material arriving outside of Oʻahu should be washed and/or visually inspected; inspection and cleaning activities should be conducted at a designated location prior to entry to the project site; raw materials should be purchased from a local supplier; if landscaping occurs, native Hawaiian plants or non-invasive plants should be used.

New plantings within the Park will be consistent with Chapter 46 HRS §103D-408[67] which requires incorporation Hawaiian plants into landscaping of public building, facilities and housing, subject to the conditions noted therein.

~~4.5.6.2~~4.5.7.2 *Terrestrial Fauna*

In regard to terrestrial fauna, avoidance and mitigation measures for the white tern include the following: tree removal and trimming should be conducted in the fall and early winter; inspection of trees prior to any tree removals; if a chick is found nesting that tree should not be trimmed or removed until the chick has fledged. While the Hawaiian hoary bat was not directly observed, suitable habitat was. The following measures are recommended: no trees taller than 15 feet should be trimmed or removed between June 1 and September 15; and any erected fences for the project should be barbless top strand wire.

~~4.5.6.3~~4.5.7.3 *Marine Life*

Potential impacts are evaluated based on: potential impacts on threatened and endangered marine species listed under the Endangered Species Act of 1973 (ESA), as amended; impacts on marine habitats, specifically coral reefs; impacts on Essential Fish Habitats (EFH) managed and protected under 1996 amendments to the Magnusson-Stevens Fishery Conservation and Management Act; impacts on marine species regulated by the State, Department of Land and Natural Resources (DLNR), Division of Aquatic Resources (DAR); impacts due to alien marine species; and existing management measures designed to avoid, minimize, or prevent such impacts.

[67] State of Hawaiʻi. 2015. *Hawaii Revised Statutes, Chapter 103D, Hawaii Public Procurement Code, 103D-408, Hawaiian plants; use in public landscaping.*