

State of Hawai'i
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Aquatic Resources
Honolulu, Hawai'i 96813

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

Request for Approval of the Application Form and Terms and Conditions for the State of Hawai'i Aquarium Fish Permit Pursuant to Hawaii Revised Statutes Section 188-31; Request for Approval of Terms and Conditions for the West Hawai'i Aquarium Permit Pursuant to Hawaii Administrative Rules Section 13-60.4-7; Request to Delegate Authority to the Chair to Approve, Sign, and Issue West Hawai'i Aquarium Permits and State of Hawai'i Aquarium Fish Permits authorizing limited commercial aquarium collection in the West Hawai'i Regional Fishery Management Area (WHRFMA) to Up to Seven Applicants That Meet Certain Criteria and Requirements

The Division of Aquatic Resources (DAR) is seeking preliminary approval of an application form and permit terms and conditions from the Board of Land and Natural Resources (Board or BLNR) to facilitate the permitting process for commercial aquarium collecting in West Hawai'i. Submitted for your consideration are:

- 1) A summary of the historical background surrounding environmental review requirements for the commercial aquarium fishery;
- 2) A summary of the "Data Review and Management Brief for the West Hawai'i Commercial Aquarium Fishery";
- 3) A discussion and analysis of Native Hawaiian cultural impacts ("Ka Pa'akai Analysis");
- 4) A draft application form for the State of Hawai'i Aquarium Fish Permit;
- 5) Draft special terms and conditions for the State of Hawai'i Aquarium Fish Permit;¹
- 6) A draft West Hawai'i Geographical Addendum to the State of Hawai'i Aquarium Fish Permit; and
- 7) Draft special terms and conditions for the West Hawai'i Aquarium Permit.²

¹ The State of Hawai'i Aquarium Fish Permit is established by [Hawaii Revised Statutes \(HRS\) §188-31](#) ("Except as prohibited by law, the department, upon receipt of a written application, may issue an aquarium fish permit, not longer than one year in duration, to use fine meshed traps, or fine meshed nets other than throw nets, for the taking of marine or freshwater nongame fish and other aquatic life for aquarium purposes.").

² [Hawaii Administrative Rules \(HAR\) §13-60.4-7](#) establishes the rules for the West Hawai'i Aquarium Permit utilizing the authority granted in [HRS §188-53](#) ("The department may make, adopt, and amend rules and may issue permits as it deems necessary for managing the fishing reserves, refuges, public fishing areas, and other waters or lands under the jurisdiction or control of the State.") and [Hawaii](#)

PURPOSE

The purpose of this submittal is to update the State of Hawai'i Aquarium Fish Permit application form and establish new terms and conditions for both the State of Hawai'i Aquarium Fish Permit and the West Hawai'i Aquarium Permit to ensure that any future aquarium collecting activity in West Hawai'i, if permitted, will be well managed and sustainable. DAR believes that establishing standard and consistent terms and conditions, reviewed and approved by the Board in a public meeting, will facilitate the permitting process and give future applicants and the public clear expectations of the terms and conditions that will be imposed on permittees. This will enable potential permit applicants to make an informed decision when determining the feasibility of submitting an application to participate in the commercial aquarium fishery. More importantly, this process provides the Board an opportunity to receive public input before approving standard permit terms and conditions.

BACKGROUND

On September 6, 2017, the Supreme Court of the State of Hawai'i (Court) filed an opinion in the case of Umberger v. Department of Land and Natural Resources, 140 Hawai'i 500 (2017),³ in which the Court ruled that the use of fine mesh nets to take aquatic life for aquarium purposes is subject to compliance with the requirements of Hawaii Revised Statutes (HRS) chapter 343, also known as the Hawai'i Environmental Policy Act (HEPA).⁴ The case was remanded for further proceedings in the Circuit Court of the First Circuit, State of Hawai'i (circuit court). On October 27, 2017, the Honorable Jeffrey P. Crabtree, issued a circuit court order declaring that all permits issued or renewed to commercial collectors pursuant to HRS §188-31 were illegal and void.⁵ The Department of Land and Natural Resources (Department or DLNR) has not issued or renewed any aquarium permits since the Supreme Court ruling in Umberger.⁶

On April 8, 2018, the Pet Industry Joint Advisory Council (PIJAC) prepared and published a Draft Environmental Assessment (EA) for the Issuance of Commercial Aquarium Permits for the Island of Hawai'i. On June 7, 2018, PIJAC submitted to the Department a Final EA with a proposed Finding of No Significant Impact. On July 26, 2018, the Department issued a Notice of Determination that an Environmental Impact Statement (EIS) was required. Accordingly, PIJAC prepared a Draft EIS and Final EIS to evaluate the potential impacts of alternatives associated with the issuance of ten to fourteen Aquarium Permits for the West Hawai'i Regional Fishery Management Area (WHRFMA). After review of that Final EIS, the BLNR determined on June 23, 2020 to not accept the Final EIS.

[Revised Statutes §188F-6](#) ("The department shall adopt rules to effectuate the purposes of [the West Hawai'i Regional Fishery Management Area] in accordance with chapter 91[, HRS].").

³ [Umberger v. Department of Land and Natural Resources, 140 Hawai'i 500 \(2017\)](#).

⁴ https://www.capitol.hawaii.gov/hrscurrent/Vol06_Ch0321-0344/HRS0343/HRS_0343-.htm.

⁵ DLNR Statement, October 27, 2017, <https://dlnr.hawaii.gov/dar/announcements/update-of-supreme-court-ruling-regarding-aquarium-fishing/>.

⁶ DLNR letter to all commercial aquarium permit holders and aquarium dealers, October 31, 2017, https://dlnr.hawaii.gov/dar/files/2017/11/Aq_Permit_Notice_10312017.pdf.

On November 27, 2020, the circuit court issued an order in a separate case holding that HEPA compliance would be required for those new or annually renewed commercial marine licenses issued pursuant to HRS §189-2, which are used for commercial aquarium fishing purposes.⁷

On February 23, 2021, PIJAC prepared a Revised Draft EIS on behalf of their members for the proposed issuance of seven commercial aquarium permits and seven commercial marine licenses for the WHRFMA. After collecting, summarizing, and incorporating public testimony gathered through the public comment period pursuant to HRS chapter 343, PIJAC submitted a Revised Final EIS (RFEIS) to the Department.⁸ The preferred alternative of the RFEIS proposed yearly individual catch quotas and total potential catch for 8 of the 40 fish species on the WHRFMA “white list”⁹ as follows:¹⁰

Table 1. RFEIS Preferred Alternative Individual Catch Quotas and Total Potential Catch

Species	Individual Catch Quota (per fisher)	Total Potential Catch (All Seven Fishers Under the RFEIS)
Lauīpala (Yellow Tang)	28,571	200,000
Black Surgeonfish ¹¹	450	3,152
Umaumalei (Orangespine Unicornfish)	838	5,872
Kole (Goldring Surgeonfish)	4,285	30,000
Hīnālea ‘iwi (Bird Wrasse)	49	344
Potter’s Angelfish	625	4,376
Thompson’s Surgeonfish	288	2,016
Mā‘i‘i (Brown Surgeonfish)	114	800

⁷ DLNR News Release, November 30, 2020, <https://dlnr.hawaii.gov/dar/announcements/update-of-supreme-court-ruling-regarding-aquarium-fishing/>. This order was rendered by the same circuit court that issued the *Umberger* injunction, in 1CCV-20-0000125. Notably, the *Umberger* case (Civil No. 1CC-12-1-002625-10) only addressed permitting for specialized gear pursuant to HRS § 188-31. Commercial aquarium collection with *un*specialized gear, however, was always lawful pursuant to commercial marine licenses (CMLs) issued pursuant to HRS § 189-2 until the referenced November 27, 2020 circuit court holding.

⁸ Revised Final Environmental Impact Statement for the Issuance of Commercial Aquarium Permits and Commercial Marine Licenses for the West Hawai‘i Regional Fishery Management Area (RFEIS), May 26, 2021, Pet Industry Joint Advisory Council, https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2021-06-08-HA-Revised-FEIS-Hawaii-Island-Commercial-Aquarium-Permits.pdf.

⁹ List of allowed fish species for commercial aquarium take within the WHRFMA, Hawaii Administrative Rules §13-60.4-7(b), <https://dlnr.hawaii.gov/dar/files/2014/05/ch60.4rev.pdf>.

¹⁰ RFEIS at pg. 31.

¹¹ Black Surgeonfish are also referred to as kole. However, the State rules for kole only apply to Goldring Surgeonfish. Therefore, to be consistent with the State rules, we use kole only when referring to Goldring Surgeonfish.

The RFEIS analyzed the impacts of the preferred alternative with the 13 significance criteria outlined in HAR § 11-200-12¹² and found that the preferred alternative resulted in no significant impacts.

The RFEIS was published in the Environmental Notice on June 8, 2021 and considered by the Board, as the approving agency, at its duly noticed sunshine meeting held on June 25, 2021.¹³ The six board members in attendance voted on a motion to accept the RFEIS. However, the motion failed due to a split 3-3 decision. Since no other action was taken by the Board within the thirty days following receipt of the RFEIS, the RFEIS was “deemed to be accepted” by operation of law pursuant to HRS § 343-5(e).¹⁴

The validity of the acceptance of the RFEIS was upheld by the circuit court on August 16, 2022,¹⁵ after which the Umberger circuit court on January 30, 2023 partly lifted the injunction preventing the Department from issuing aquarium permits pending HEPA compliance as to West Hawai'i in light of the RFEIS acceptance.¹⁶ Thus, there is no legal impediment preventing the Department from issuing permits authorizing limited commercial aquarium collecting in the WHRFMA. As such, DAR has begun to move forward to ensure the necessary frameworks are in place when we begin to receive viable applications for these permits from eligible applicants.

SUMMARY OF THE “DATA REVIEW AND MANAGEMENT BRIEF FOR THE WEST HAWAI’I COMMERCIAL AQUARIUM FISHERY”

At the April 12, 2024 Board meeting, DAR presented the Board with a review of scientific monitoring data and information relevant to the West Hawai'i Commercial

¹² https://files.hawaii.gov/luc/docs/har_11_200.pdf.

¹³ A copy of the June 25, 2021 Board agenda, including links to submittals, is available on line at <https://dlnr.hawaii.gov/meetings/blnr-meetings-2021/land-board-submittals-06-25-21/>. A copy of DAR's Board submittal (Item F-3) is available online at <https://dlnr.hawaii.gov/wp-content/uploads/2021/06/F-3-1.pdf>. The minutes of this Board meeting are also available online at <https://dlnr.hawaii.gov/wp-content/uploads/2021/09/Minutes-210625a.pdf>.

¹⁴ Notice of Statutory Acceptance of the RFEIS from the Department of Land and Natural Resources to Mary Alice Evans, Director of the Office of Planning and Sustainable Development, October 3, 2022, https://files.hawaii.gov/dbedt/erp/EA_EIS_Library/2022-10-08-HA-Revised-FEIS-Acceptance-West-HI-RFMA-Commercial-Aquarium-Permits.pdf.

¹⁵ This lawsuit, Kaupiko et al. v. Dept. of Land & Nat. Res., et al., 1CCV-20-0000892, was brought by a group closely resembling the Umberger plaintiffs; the referenced preliminary order in Kaupiko was issued on August 16, 2022 and was formalized on September 12, 2022. Although the Kaupiko plaintiffs have appealed the circuit court's ruling to the Hawaii Supreme Court (in SCAP-22-0000557), there has been no “stay” of the order upholding acceptance, which remains in effect.

¹⁶ Umberger (Civil No. 1CC-12-1-002625-10). There was also a subsequently filed “Motion to Restore Injunction” that was denied by the circuit court on May 10, 2024. A similar motion was filed in the Hawaii Supreme Court (in SCAP-23-0000421), and that motion was also denied on June 4, 2024. Attached to this document as **Exhibit D** is a declaration by DAR Aquatic Biologist Bryan Ishida dated May 17, 2024 that was filed with the State's opposition to that motion. The declaration provides accurate, science-based responses to criticism by the Umberger plaintiffs to DAR's original Report referenced in footnote 17, below. These responses are not substantively affected by the minor amendments made in the updated Report. See footnote 17.

Aquarium Fishery.¹⁷ The review included an overall evaluation of risk pertaining to potential biological and ecological impacts of the preferred alternative from the RFEIS. The evaluation of risk was based on three primary questions:

- 1) Do the data examined suggest that the proposed take will result in population-level declines that would affect the long-term viability of the population?
- 2) Do the data examined suggest that the proposed take will result in impacts to the ecosystem that would result in measurable declines in ecosystem health or the ability of the ecosystem to sustain itself?
- 3) Do current management measures mitigate potential negative effects of the fishery or provide safeguards against unforeseen changes?

The risk assessment considered multiple data sets and topics. Both the West Hawai'i Aquarium Project (WHAP) and Pacific Islands Fishery Science Center - Ecosystem Sciences Division (PIFSC-ESD) datasets offered little evidence that the fishery, when active, was threatening populations of the eight proposed white list species or the ecosystem of the WHRFMA. Notably, PIFSC-ESD data suggested densities and abundances of the eight proposed white list species in West Hawai'i were among the highest in the state. Additionally, comparison of proposed annual total allowable catch (TAC) to conservative population estimates (based on lower bounds of uncertainty range) indicated low harvest percentages within the WHRFMA (never exceeding 8%). WHAP data also showed that mean coral cover was similar across all three management area types (areas open to aquarium fishing, marine managed areas in West Hawai'i that had been closed to aquarium collecting since at least 1991, and fish replenishment areas where aquarium collecting was prohibited since 2000). Following a significant coral bleaching event in 2015, there was no discernable difference between percent coral cover or rate of recovery between where commercial aquarium harvest was allowed and where it was prohibited.

The brief also provided a review of management measures that would be in place should the fishery continue under the preferred alternative. DAR found that the amount of management and oversight on the West Hawai'i commercial aquarium fishery would surpass that of any other State-managed fishery. Notably, the closure of approximately 47.7% of the WHRFMA to commercial aquarium collection is a level of spatial protection seen in few other fisheries. Coupled with size restrictions for the two most intensely

¹⁷ A copy of DAR's Board submittal (Item F-2) is available online at <https://dlnr.hawaii.gov/wp-content/uploads/2024/04/F-2.pdf>. Since the April 12 briefing, the document, entitled "Data Review and Management Brief for the West Hawai'i Commercial Aquarium Fishery" (the Report), has been amended slightly for technical accuracy, but the conclusions have not changed. A copy of the updated document is available on the DAR website at <https://dlnr.hawaii.gov/dar/files/2024/07/Data-Review-and-Management-Brief-for-the-West-Hawai%CA%BBi-Commercial-Aquarium-Fishery-Updated-July-2024.pdf>. A copy of the updated document showing tracked changes is also available on the DAR website at <https://dlnr.hawaii.gov/dar/files/2024/07/Data-Review-and-Management-Brief-for-the-West-Hawai%CA%BBi-Commercial-Aquarium-Fishery-Updated-July-2024-With-Track-Changes-Shown.pdf>. The declaration attached as **Exhibit D** references the original version of the document.

harvested species (lau'ipala and kole) in areas open to aquarium harvest, a substantial proportion of the total WHRFMA populations of these eight species would be protected.

DAR concluded that, under the RFEIS preferred alternative, the risk of the aquarium fishery in West Hawai'i causing widespread population decline of the eight proposed white list species or major ecosystem decline is low. This assessment of low risk does not mean no risk or no impact. All fisheries in the state of Hawai'i are subject to risk and uncertainty regarding impact. When the disposition of how fish are used is put aside, the level of management of the West Hawai'i commercial aquarium fishery provides a comparatively lower risk than most fisheries in the State.

DAR recognizes that the Board must consider socio-cultural impacts, pursuant to Article XII, Section 7 of the Hawaii State Constitution in the final decision whether to authorize the issuance of a limited number of commercial aquarium fishery permits based upon standard terms and conditions. However, based upon DAR's scientific assessment, there is little justification for keeping the fishery closed solely based on potential population and ecosystem impacts.

DISCUSSION AND ANALYSIS OF NATIVE HAWAIIAN CULTURAL IMPACTS ("KA PA'AKAI ANALYSIS")

On September 11, 2000, the Hawai'i Supreme Court, in Ka Pa'akai O Ka 'Āina vs. Land Use Commission, State of Hawai'i¹⁸ (Ka Pa'akai), established the analytical framework for compliance with Article XII, Section 7 of the Hawai'i State Constitution.¹⁹ The Court in Ka Pa'akai ruled that State and government agencies have an obligation to "preserve and protect traditional and customary Native Hawaiian rights" and that an appropriate analytical framework was needed to assess whether these rights were unduly violated.²⁰ The Court developed a three-pronged test, dubbed the "Ka Pa'akai Analysis," which is triggered when government agencies consider proposed uses of land and water resources that may impact the exercise of Native Hawaiian traditional and customary rights.

The Ka Pa'akai Court did not opine as to whether the Ka Pa'akai Analysis could or should be applied outside of contested case hearings, but it also seemed to suggest that an agency's constitutional obligation to reasonably protect Native Hawaiian traditional and customary rights could be widely applicable to all agency actions. Then,

¹⁸ [Ka Pa'akai o ka 'Āina v. Land Use Comm'n \(Ka Pa'akai\), 94 Hawai'i 31, 7 p.3d 1068 \(2000\)](#) (Ka Pa'akai).

¹⁹ "The State reaffirms and shall 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."

²⁰ "Following up on PASH, we recognized in Ka Pa'akai that in contested case hearings, the State and its agencies have an 'affirmative duty ... to preserve and protect traditional and customary native Hawaiian rights' and provided a framework 'to effectuate the State's obligation to protect native Hawaiian customary and traditional practices while reasonably accommodating competing private interests.'" [Flores-Case 'Ohana v. University of Hawai'i, 153 Hawai'i 76, at 83 \(2023\)](#) (quoting Ka Pa'akai at 45-47, 1082-1084)

on March 15, 2023, the Court ruled in Flores-Case ‘Ohana v. University of Hawai‘i²¹ (FCO) that the obligation described in Ka Pa‘akai also applies to rulemaking actions.²² The Court did not provide further clarity on how to analyze other agency actions, or regarding what other agency actions the analysis might also apply to. While *this* proposal is *not* an agency rulemaking action, the analysis outlined in FCO is generally instructive.

DAR is requesting approval of terms and conditions of the permits and not issuance of any specific permit at this time. Nonetheless, the issuance of any future permit by the Chair, should the Board delegate authority to the Chair to do so, could be something that is one day considered an agency action. Thus, in an abundance of caution and recognizing that the law is still evolving regarding application of the Ka Pa‘akai Analysis, the Department provides the following discussion of this proposal’s potential effects on Native Hawaiian traditional and customary rights²³:

1) The Identity and Scope of Native Hawaiian Traditional and Customary Rights Affected by the Potential Issuance of West Hawai‘i Aquarium Permits and State of Hawai‘i Aquarium Fish Permits to HEPA-Compliant Applicants, if Any

The requirements for an environmental impact statement prepared pursuant to HEPA include the preparation of a cultural impact assessment, an analysis of the perceived impacts for each listed alternative, and proposed mitigating actions to be taken by the applicant where negative impacts have been identified. Draft EISs undergo an extensive review and comment period and, in some cases, multiple rounds of revisions before an FEIS is brought before the accepting agency who decides whether or not the FEIS is an adequate disclosure and analysis of the perceived impacts of a proposed action and its alternatives. As described in the “Background” section above, the RFEIS was deemed accepted pursuant to HRS § 343-5(e). Therefore, the cultural impact assessment (CIA) is instructive as a reasonable and adequate accounting of the traditional and customary

²¹ [Flores-Case ‘Ohana v. University of Hawai‘i, 153 Hawai‘i 76 \(2023\)](#).

²² “In sum, the Ka Pa‘akai framework applies to administrative rulemaking in addition to contested case hearings. Requiring the State and its agencies to consider Native Hawaiian traditional and customary rights in these contexts effectuate[s] the State’s obligation to protect native Hawaiian customary and traditional practices[.]” [Flores-Case ‘Ohana v. University of Hawai‘i, 153 Hawai‘i 76, at 84 \(2023\)](#). The modified Ka Pa‘akai Analysis to be used in rulemaking actions outlined in FCO requires agencies to consider: (1) The identity and scope of Native Hawaiian traditional and customary rights affected by the rule, if any; (2) The extent to which Native Hawaiian traditional and customary rights will be affected or impaired by the rule; and (3) Whether the proposed rules reasonably protect Native Hawaiian traditional and customary rights, if they are found to exist, as balanced with the State’s own regulatory right.

²³ This discussion is based on the Cultural Impacts Analysis (CIA) provided in the accepted RFEIS—see [RFEIS](#) at pgs. 220–373—which was performed by a firm known for its specialty in Native Hawaiian Cultural Impacts, as well as various public testimony to the BLNR in connection with the RFEIS and other matters related to this subject in recent years, as further described and cited to below.

practices that could be affected by any eventual issuance of permits that could follow this proposed action.²⁴

The RFEIS identified the following cultural resources related to each of the species that would be allowed for commercial aquarium take by the seven potential commercial aquarium permit applicants under the preferred alternative:²⁵

Table 3. Cultural significance of proposed white list species as outlined in the RFEIS's cultural impact assessment.

Species	Identified Cultural Significance
Lau'ipala ²⁶ (Yellow Tang)	<ul style="list-style-type: none"> - Subsistence (Considered a delicacy) - Lā'au lapa'au (Healing)
Black Surgeonfish ²⁷	<ul style="list-style-type: none"> - See "kole"
Umaumalei ²⁸ (Orangespine Unicornfish)	<ul style="list-style-type: none"> - Kumulipo pairing with 'ūlei (Hawaiian Rose) <p><u>Kala Generally</u>²⁹</p> <ul style="list-style-type: none"> - Subsistence (Considered a delicacy)³⁰ - Fishing (Used in palu (bait)) - Hula (Skin used to make pūniu)³¹
Kole ³² (Goldring Surgeonfish)	<ul style="list-style-type: none"> - Subsistence (Widely caught and eaten) - Religion/Spirituality (Rid a place of bad energy)
Hīnālea 'I'iwi ³³ (Bird Wrasse)	<ul style="list-style-type: none"> - No identified species-specific cultural significance <p><u>Hīnālea Generally</u>³⁴</p> <ul style="list-style-type: none"> - Subsistence (Widely caught and eaten)³⁵ - Religion/Spirituality (Used as offerings; kinolau)
Potter's Angelfish ³⁶	<ul style="list-style-type: none"> - No identified cultural significance
Thompson's Surgeonfish ³⁷	<ul style="list-style-type: none"> - No identified species-specific cultural significance - See also "Kala Generally" under "Umaumalei"

²⁴ Several individuals whose perspectives are incorporated in the CIA have also shared similar sentiments in subsequent public testimony to the Board. References to each appear below.

²⁵ [RFEIS](#) at pgs. 45-80, Section 4.4.1, Biological Resources – White List Species.

²⁶ [RFEIS](#) at pgs. 47-48.

²⁷ [RFEIS](#) at pgs. 49-50.

²⁸ [RFEIS](#) at pgs. 53-54.

²⁹ This species was included in the discussion of the cultural significance of all species of kala generally. See [RFEIS](#) at pg. 54.

³⁰ The numerous fishing techniques tied to all species of kala showcase the important role they played in traditional Hawaiian subsistence practices. [RFEIS](#) at pg. 54.

³¹ Online Hawaiian language dictionary database, wehewehe.org, [search for "pūniu."](#) (A pūniu is a "small knee drum made of a coconut shell with fishskin cover, as of kala.")

³² [RFEIS](#) at pg. 58.

³³ [RFEIS](#) at pgs. 60-61.

³⁴ This species was included in the discussion of the cultural significance of all species of hīnālea generally. [RFEIS](#) at pgs. 50-51.

³⁵ The numerous fishing techniques tied to all species of hīnālea showcase the important role they played in traditional Hawaiian subsistence practices. See [RFEIS](#), at pgs. 50-51.

³⁶ [RFEIS](#) at pg. 61.

³⁷ [RFEIS](#) at pg. 66.

Species	Identified Cultural Significance
Mā'ī'ī ³⁸ (Brown Surgeonfish)	<ul style="list-style-type: none"> - Shared name with kalo variety³⁹ - Subsistence (Prepared numerous ways)

After the RFEIS was deemed accepted, public testimony relating to commercial aquarium collecting generally was received at two publicly noticed meetings of the Board. The first meeting on December 7-8, 2023, addressed a petition to the Board to undergo rulemaking to ban commercial aquarium collection statewide.⁴⁰ The second meeting on April 12, 2024, included a briefing to the Board on the current fishery data for the WHRFMA,⁴¹ as well as a request for clarification and further guidance on the Board's December 8, 2023 decision to grant the rulemaking petition.⁴² Public testimony from these meetings^{43, 44, 45} was analyzed, and Native Hawaiian traditional and customary rights were identified.

The following discussion is based on the Cultural Impacts Analysis (CIA) provided in the accepted RFEIS,⁴⁶ as well as various public testimony to the BLNR in connection with the RFEIS and other matters related to this subject that have come before the Board in recent years, as further described and cited to below. This testimony indicates that there is no universal Native Hawaiian traditional and customary worldview regarding aquarium collection.

³⁸ [RFEIS](#) at pg. 72.

³⁹ Generally shared names between aquatic and terrestrial species indicates some identified cultural connection between the two species (i.e. indicator species, shared physical characteristics, shared historical significance, etc.).

⁴⁰ A copy of DAR's December 7, 2023 Board submittal (Item F-3) is available online at <https://dlnr.hawaii.gov/wp-content/uploads/2023/12/F-3.pdf>.

⁴¹ See footnote 17.

⁴² A copy of DAR's April 12, 2024 Board submittal (Item F-3) is available online at <https://dlnr.hawaii.gov/wp-content/uploads/2024/04/F-3.pdf>.

⁴³ A copy of public testimony submitted to the Board for Agenda Item F-3 (12/7/23) is available online: [\[Testimony-Nov\]](#), [\[Testimony-Nov-2\]](#), [\[Testimony-Dec\]](#), [\[Testimony\]](#), [\[Testimony-Late\]](#)

⁴⁴ A copy of testimony submitted to the Board for Agenda Item F-2 (4/12/24) is available online: [\[Testimony\]](#)

⁴⁵ A copy of testimony submitted to the Board for Agenda Item F-3 (4/12/24) is available online: [\[Testimony\]](#), [\[Testimony Late – F2-F3, 4/15/24 \(Pt. 1\)\]](#), [\[Pt. 2\]](#), [\[4/16\]](#), [\[4/17\]](#), [\[4/18\]](#), [\[4/20\]](#), [\[4/27\]](#), [\[5/3\]](#)

⁴⁶ [RFEIS](#) at pgs. 220–373. The CIA sought to invite broad participation by “community members with genealogical ties and long-standing residency or relationships to the” area and individuals with knowledge about traditional cultural properties, practices, beliefs, and/or uses associated with the entire WHRFMA.” [RFEIS](#) at 331. Hereafter, “testimony” refers to both the CIA contents and various public Board testimony.

Some testimony, for example, described a worldview that Hawaiian cultural resources and marine life are sacred ‘aumākua,⁴⁷ kūpuna,⁴⁸ and kinolau.⁴⁹ Marine life are traditionally viewed as ancestors, relatives, and physical manifestations of religious deities. Humans are the youngest family members, meant to be stewards, taking only what is needed to sustain life.⁵⁰ The concept of human ownership over marine life is in direct conflict with this Hawaiian worldview. This Hawaiian worldview does not support fishing practices that do not feed or benefit the people of that place.⁵¹ Similarly, this worldview maintains that the practice of selling revered marine life to those with no connection to Hawaiian values and culture is disrespectful and disruptive to the pono⁵² relationship with i‘a⁵³ and the symbiotic/reciprocal relationship that has governed traditional Hawaiian stewardship practices since time immemorial.⁵⁴ Through this lens, aquarium collection fundamentally conflicts with core Native Hawaiian cultural values, spiritual beliefs, subsistence practices, and the overall sacred relationship between kānaka and the marine environment they steward.⁵⁵

Other testimony indicated that some members of the Native Hawaiian community are supportive of or have personal experience engaging in aquarium collection, for commercial gain or otherwise.⁵⁶ The collection by coastal fishermen of marine life to sell or trade with members of other communities with access to different natural resources is also consistent with traditional Native Hawaiian practices.⁵⁷

⁴⁷ Online Hawaiian language dictionary database, wehewehe.org, [search for “aumakua.”](#) (“Family or personal gods, deified ancestors who might assume the shape of sharks (all islands except Kaua‘i), owls (as at Mānoa, O‘ahu and Ka‘ū and Puna, Hawai‘i), hawks (Hawai‘i), ‘elepaio, ‘iwi, mudhens, octopuses, eels, mice, rats, dogs, caterpillars, rocks, cowries, clouds, or plants. A symbiotic relationship existed; mortals did not harm or eat ‘aumākua (they fed sharks), and ‘aumākua warned and reprimanded mortals in dreams, visions, and calls.”)

⁴⁸ Online Hawaiian language dictionary database, wehewehe.org, [search for “kupuna.”](#) (“Grandparent, ancestor, relative or close friend of the grandparent’s generation, grandaunt, granduncle.”)

⁴⁹ Online Hawaiian language dictionary database, wehewehe.org, [search for “kino lau.”](#) (“Many forms taken by a supernatural body, as Pele, who could at will become a flame of fire, a young girl, or an old hag.”)

⁵⁰ See, e.g., Video Livestream of Board Meeting, 12/7/23 (<https://www.youtube.com/watch?v=V4xDtBo3ywU>) at 5:54.

⁵¹ See Video Livestream of Board Meeting, 4/12/24 (<https://www.youtube.com/watch?v=GeBFcLpUrxE>) at 3:45.

⁵² Online Hawaiian Language Dictionary Database, [wehewehe.org, search for “pono”](#) (“Goodness, uprightness, morality, moral qualities, correct or proper procedure, excellence, well-being, prosperity, welfare, benefit, behalf, equity, sake, true condition or nature, duty; moral, fitting, proper, righteous, right, upright, just, virtuous, fair, beneficial, successful, in perfect order, accurate, correct, eased, relieved; should, ought, must, necessary.”)

⁵³ Online Hawaiian Language Dictionary Database, [wehewehe.org, search for “i‘a”](#) (“Fish or any marine animal, as eel, oyster, crab, whale.”)

⁵⁴ See, e.g., Video Livestream of Board Meeting, 12/7/23 (<https://www.youtube.com/watch?v=V4xDtBo3ywU>) at 5:12.

⁵⁵ See, e.g., Video Livestream of Board Meeting, 12/7/23 (<https://www.youtube.com/watch?v=V4xDtBo3ywU>) at 5:12.

⁵⁶ See [RFEIS](#) at pgs. 335–36 (by former collector), 342–43 (by former permit holder), 127 (describing internal conflict of commercial collectors who are also Native Hawaiian), and 132 (former diver/collector). See also, e.g., Public “Testimony” for Item F-3 on the BLNR’s June 25, 2021 Meeting Agenda, at 192, available at <https://dlnr.hawaii.gov/wp-content/uploads/2021/06/F-3T.pdf>.

⁵⁷ See [RFEIS](#) at pgs. 246 and 249.

The Native Hawaiian principles of aloha ‘āina,⁵⁸ mālama ‘āina,⁵⁹ and ‘āina momona⁶⁰ were also identified as being affected by the proposed activity, although specific impacts to cultural rights or practices were not described. Testimony noted that aquarium collectors compete with the intergenerational perpetuation of subsistence fishing to meet community needs.⁶¹

As noted, although the Board received numerous testimony indicating that the concept of keeping fish in an aquarium goes against Hawaiian beliefs and values and offends the Hawaiian consciousness, this was not the only Native Hawaiian perspective offered.⁶² Testimony from a Native Hawaiian practitioner also noted that there is a difference between a philosophical disagreement with an activity, and a practical impact on cultural practice.⁶³ An activity has a practical impact on cultural practices when certain species are no longer available for practices such as makana⁶⁴ or ho‘okupu.⁶⁵ As long as the species are available, the cultural practice is not negated.

2) Extent to Which Native Hawaiian Traditional and Customary Rights Will Be Affected or Impaired by the Potential Issuance of West Hawai‘i Aquarium Permits and State of Hawai‘i Aquarium Fish Permits to HEPA-Compliant Applicants

The RFEIS states:

As concluded in the [cultural impact assessment (CIA) attached as Appendix A], cultural impacts would occur if issuance of Aquarium Permits under an alternative would cause a significant decline in the population of a White List Species considered to be a cultural resource, either directly through the collection of fish or indirectly through habitat impacts. However, some interviewees expressed the belief that collection for aquarium purposes, regardless of impact or sustainability, is a violation of traditional beliefs, including traditional and customary practices. . . . While not all species

⁵⁸ Online Hawaiian language dictionary database, wehewehe.org, [search for “aloha ‘āina.”](#) (“Love of the land or of one’s country, patriotism; . . . aloha ‘āina is a very old concept, to judge from the many sayings (perhaps thousands) illustrating deep love of the land.”)

⁵⁹ Online Hawaiian language dictionary database, wehewehe.org, [search for “mālama”](#) and [search for “‘āina.”](#) (Literally translates to “care for the land.”)

⁶⁰ Online Hawaiian language dictionary database, wehewehe.org, [search for “‘āina”](#) and [search for “momona.”](#) (Literally translates to “fertile/rich land,” Figuratively used to describe abundant resources.)

⁶¹ See, e.g., *id.* at 5:42.

⁶² See references in footnotes 56 and 57, above.

⁶³ See Video Livestream of Board Meeting, 4/12/24 (<https://www.youtube.com/watch?v=GeBFcLpUrxE>) at 3:07.

⁶⁴ Online Hawaiian Language Dictionary Database, [wehewehe.org](#), [search for “makana”](#) (“Gift, present; reward, award, donation, prize; to give a gift, donate.”)

⁶⁵ Online Hawaiian Language Dictionary Database, [wehewehe.org](#), [search for “-kupu”](#) (“ho‘o.kupu Tribute, tax, ceremonial gift-giving to a chief as a sign of honor and respect; to pay such tribute; church offering.”)

have a known Hawaiian cultural significance, for this analysis, it was assumed that the 33 species on the White List identified as having a cultural use for food, medicinal, religious or ceremonial purposes could have a negative cultural impact if populations of those species were impacted. . . .

[P]opulations of the 40 White List Species are not anticipated to significantly decline under any of the 7 alternatives under consideration. However, given that some native Hawaiians believe any collection for aquarium purposes is contrary to cultural practices, all six action alternatives may negatively impact cultural practices. . . . Under the Preferred Alternative, negative impacts in the WHRFMA would be the least when compared to the other action alternatives due to implementation of the Revised White List (32 species would not be collected at all in the WHRFMA) and individual catch quotas⁶⁶ for the remaining 8 [fish species] on the proposed Revised White List species.^[67]

DAR staff has carefully considered monitoring data from within the WHRFMA and has determined that the data support the CIA's conclusions that the proposed TAC for commercial aquarium take within the WHRFMA is not likely to have a significant impact on the populations of the proposed white list species. DAR believes that the extent of potential impacts of commercial aquarium collection on any non-aquarium take of those species, including for traditional and customary subsistence, cultural, or religious purposes, will likely be nominal. Further, while the belief that aquarium fishing offends core Hawaiian values is a factor that the Board may consider when ultimately making a decision to delegate authority to the Chair to issue a limited number of these permits and/or to finalize specific terms and conditions, DAR concludes that issuance of these permits would not inhibit any person's right to hold these beliefs.

Therefore, for the purposes of the State's constitutional duty to assess impacts to rights traditionally and customarily exercised for Native Hawaiian subsistence, cultural, or religious purposes under Article XII, section 7 of the Hawai'i State Constitution, if applicable to this action, the Department concludes that the those rights can still be asserted, even if the proposed TAC of the white list species is eventually reached pursuant to future permitted activity.

3) Reasonable Protections for or Mitigation of Negative Effects to Native Hawaiian Traditional and Customary Rights, if They are Found to Exist, as Balanced with the State's Own Regulatory Right

⁶⁶ While the RFEIS preferred alternative proposed individual catch quotas (ICQs) for each of the seven collectors, DAR is not proposing to impose ICQs for permittees. Rather, DAR proposes to manage the fishery under an annual total allowable catch (TAC) for each white list species.

⁶⁷ [RFEIS](#) at pg. 108.

One of the original purposes of the WHRFMA is to “minimize user conflicts and resource depletion in the [WHRFMA], by designating fish replenishment areas and identifying other regulated areas where aquarium fish collecting is prohibited . . . and establishing a portion of the fish replenishment areas as fish reserves where no fishing of reef-dwelling fish is allowed.”⁶⁸ The FRAs were the original mitigation measure to reduce impacts of the aquarium fishing trade on communities who did not agree with the aquarium fishery or otherwise had concerns regarding aquarium take in their areas.

The RFEIS states:

Measures included in the Preferred Alternative (e.g., limited permit issuance, Revised White List, and implementation of individual catch quotas^[69]) will mitigate potential impacts to cultural resources by halting collection of 32 species in the WHRFMA, and by limiting the number of the remaining 8 species which can be collected by any fisher in a given year. These measures may increase the number of White List Species available for cultural practices and traditional subsistence fishers, and potentially decrease user conflict between commercial aquarium collectors and subsistence fishers or cultural practitioners, though conflicts with other user groups may still remain. Although cumulative cultural resource impacts would be lower under the Preferred Alternative, the Applicant acknowledges that some native Hawaiians believe any collection for aquarium purposes is contrary to cultural practices.^[70]

In order to ensure that the proposed aquarium take does not adversely affect Native Hawaiian traditional and customary subsistence fishing practices, the Department has decided to recommend the preferred alternative of the RFEIS, subject to the modifications and terms and conditions described below. This alternative will allow limited sustainable commercial aquarium harvest with the least impact to populations of the proposed white list species and, therefore, to traditional and customary practices related to those species. DAR will continue to monitor fish populations within the WHRFMA and is proposing strict terms and conditions for all permitted commercial aquarium take within the WHRFMA, including catch reports and inspections. Any violation of permit terms and conditions may result in termination of the permit.

DRAFT PERMIT APPLICATION

⁶⁸ [§13-60.4-1\(a\)\(4\), HAR.](#)

⁶⁹ See footnote 66.

⁷⁰ [RFEIS](#) at pg. 110. Conflict amongst users of ocean resources in West Hawai'i “began to rise in the 1980s . . . most particularly between dive tour operators and collectors.” See DAR’s November 2019 report to the Legislature at pg. 18, https://dlnr.hawaii.gov/dar/files/2020/05/ar_hrs188_2020.pdf.

There are two permits that are required by law in order to take marine life for aquarium purposes within the WHRFMA, the State of Hawai'i Aquarium Fish Permit and the West Hawai'i Aquarium Permit. We are requesting that the Board review and approve the permit application form for the State of Hawai'i Aquarium Fish Permit, attached as **Exhibit A**, which will serve as the application form for both permits.

Summary of Key Parts of the Application Form

1) *Applicant Information*

General information from the applicant such as name, address, contact information, and commercial marine license number (if applicable).

2) *Disclosure of Citations for Aquatic Resource Violations within the Past Five Years*

We believe that requiring an applicant to disclose any citations for aquatic resource violations within the past five years is important information that will allow the Department to make informed decisions when using its discretion in issuing these permits.

DRAFT PERMIT TERMS AND CONDITIONS

Permit Structure

In addition to a set of general terms and conditions for all DAR permits and licenses,⁷¹ each permit and license has a set of specific terms and conditions that apply to the specific activity covered under that particular permit or license. For the purposes of this submittal, we are requesting review and approval of specific terms and conditions for the two permits that are required by law in order to take marine life for aquarium purposes within the WHRFMA.

- 1) First, there is a State of Hawai'i Aquarium Fish Permit that is required for any take of marine life using fine mesh nets for aquarium purposes within the State pursuant to §188-31, HRS. For the State of Hawai'i Aquarium Fish Permit, we are requesting approval of specific terms and conditions that would apply to aquarium collection anywhere in the State,⁷² as well as a geographically-specific addendum for West Hawai'i, attached as **Exhibit B**.
- 2) Second, there is a West Hawai'i Aquarium Permit that is required for any take of marine life for aquarium purposes within the WHRFMA pursuant to §13-60.4-7, HAR. For the West Hawai'i Aquarium Fish Permit, we are requesting approval of specific terms and conditions, attached as **Exhibit C**.

⁷¹ A copy of the "Commercial Fisheries License & Permit General Terms and Conditions" is available on the DAR website at https://dlnr.hawaii.gov/dar/files/2024/05/CML_renewal_form.pdf (p.2 of document).

⁷² The proposed specific terms and conditions of the State of Hawai'i Aquarium Fish Permit are included on the Aquarium Fish Permit application form, attached as **Exhibit A**.

Summary of Key Terms and Conditions

1) *Permit Validity and Applicability*

The permit is only valid for the individual named on the permit. The permit does not authorize assistance by unpermitted individuals during aquarium collecting activities. However, one unpermitted person is allowed onboard a vessel during an aquarium fishing trip for the sole purpose of operating the vessel, provided that the unpermitted person must remain onboard the vessel at all times and must not engage in any aquarium collection activities during the aquarium fishing trip. Each permit is valid for a period of one year.

2) *Geographical Restrictions*

The permit authorizes take of marine life for aquarium purposes within the WHRFMA only.

3) *White List of Species*

Only eight proposed marine finfish species may be harvested for aquarium purposes under the permit. The list of species is consistent with the preferred alternative of the RFEIS and is shown in **Table 2**, below. The species included in the white list are lau'īpala (Yellow Tang), Black Surgeonfish, umaumalei (Orangespine Unicornfish), kole (Goldring Surgeonfish), hīnālea 'ī'iwi (Bird Wrasse), Potter's Angelfish, Thompson's Surgeonfish, and mā'ī'ī (Brown Surgeonfish).

4) *Total Allowable Catch*

Each species will have an annual total allowable catch (TAC) that is equal to or less than the TAC analyzed in the preferred alternative of the RFEIS as well as in DAR's independent data brief. The proposed TAC for each species is shown in **Table 2**, below.

Table 2. Proposed list of species allowed for take under the permit and proposed annual total allowable catch (TAC) for each of the eight species.

Hawaiian/Common Name	Scientific Name	Total Allowable Catch (TAC)
Lau'īpala (Yellow Tang)	<i>Zebrasoma flavescens</i>	200,000
Kole (Goldring Surgeonfish)	<i>Ctenochaetus strigosus</i>	12,775 ⁷³
Umaumalei (Orangespine Unicornfish)	<i>Naso lituratus</i>	5,827 ⁷⁴

⁷³ The proposed TAC for kole was reduced from 30,000 to 12,775 at the request of the collectors who participated in the preparation of the RFEIS. With the recently established statewide five-inch minimum size limit for kole and an existing aquarium bag limit of five kole larger than four inches in the WHRFMA, 12,775 represents the maximum number of kole that may be legally collected by seven permitted collectors in a single year.

⁷⁴ The proposed TAC for umaumalei was changed from 5,872 to 5,827 to correct a typo.

Black Surgeonfish	<i>Ctenochaetus hawaiiensis</i>	3,152
Potter's Angelfish	<i>Centropyge potteri</i>	1,086 ⁷⁵
Mā'i'i'i (Brown Surgeonfish)	<i>Acanthurus nigrofuscus</i>	800
Hīnālea 'iwi (Bird Wrasse)	<i>Gomphosus varius</i>	344
Thompson's Surgeonfish	<i>Acanthurus thompsoni</i>	182 ⁷⁶

5) *Reporting Requirements*

Every permittee is required to submit a WHRFMA At Sea Aquarium Report prior to final departure to the landing port with an allowable margin of error of up to 5% for each species when compared with the final aquarium catch report, which includes the final confirmed catch numbers and is required within one calendar day after the end of each aquarium fishing trip.

6) *No Prior Criminal Convictions for Aquatic Resource Violations Within the Past Five Years*

Any applicant who has a criminal conviction for an aquatic resource violation within the past five years is ineligible for a permit.

7) *Possession of Facilities and Ability to Keep Fish Alive and in Reasonable Health Pursuant to §188-31(b), HRS*

Section 188-31(b), HRS, requires that permits only be issued to applicants who can satisfy the Department that they possess the facilities and ability necessary to "maintain fish alive and in reasonable health."

8) *HEPA Compliance*

The Supreme Court in Umberger ruled that the environmental review requirements of HEPA must be satisfied before permits can be issued. An applicant must demonstrate that they have satisfied HEPA prior to issuance of a permit.

9) *Permit Revocation*

If a permittee violates any aquatic resource statute or rule or any term or condition of the permit, their permit may be revoked at the discretion of the Department after due process is given.

⁷⁵ The proposed TAC for Potter's Angelfish was reduced from 4,376 (which represents one percent of the 2019 WHRFMA population estimate provided in the RFEIS) to 1,086 (which represents the 20-year historic average annual catch from the entire WHRFMA fishery from 1998 – 2017).

⁷⁶ The proposed TAC for Thompson's Surgeonfish was reduced from 2,016 (which represents one percent of the 2019 WHRFMA population estimate provided in the RFEIS) to 182 (which represents the 20-year historic average annual catch from the entire WHRFMA fishery from 1998 – 2017).

CONCLUSION

The Department is the agency tasked with issuing permits for aquarium collection within the WHRFMA and establishing applicable terms and conditions that apply to permittees. The issuance of aquarium permits, including the establishment of permit terms and conditions, falls under the discretionary authority of the Board, which is the head of the Department. Aside from an agency's constitutional duty to assess and mitigate impacts to Native Hawaiian traditional and customary rights, the Board is tasked with weighing many other, less tangible, but equally important, factors when approving or denying certain activities under the jurisdiction of that agency, including social acceptability, economic hardships, and cultural beliefs and values.

DAR, the division tasked with managing the aquatic resources of the State, has provided the Board with an overview of the relevant data and views pertinent to the decision-making process. The Board may exercise its discretion by pre-approving permit terms and conditions and then delegating authority to the Chair to issue permits subject to those terms and conditions. This is consistent with DAR's recommendations presented below.

RECOMMENDATIONS

The Division respectfully requests that the Board:

- 1) Approve the proposed application form and terms and conditions for the State of Hawai'i Aquarium Fish Permit, including the proposed standard terms and conditions provided in the West Hawai'i Geographical Addendum;
- 2) Approve the proposed terms and conditions for the West Hawai'i Aquarium Permit;
- 3) Delegate authority to the Chair to review, approve, issue, and renew up to seven West Hawai'i Aquarium Permits and up to seven State of Hawai'i Aquarium Fish Permits to the seven individuals who contributed to the preparation of the RFEIS, subject to the terms and conditions approved by the Board; and
- 4) Delegate authority to the Chair to make any non-substantive changes to the application form or permit terms and conditions at the recommendation of the Office of the Attorney General.

Respectfully submitted,



BRIAN J. NEILSON, Administrator
Division of Aquatic Resources

APPROVED FOR SUBMITTAL



DAWN N. S. CHANG, Chairperson
Board of Land and Natural Resources

Attachments:

Exhibit A – State of Hawai'i Aquarium Fish Permit Application Form and Special Terms and Conditions

Exhibit B – State of Hawai'i Aquarium Fish Permit West Hawai'i Addendum

Exhibit C – West Hawai'i Aquarium Permit Special Terms and Conditions

Exhibit D – Declaration of Bryan R. Ishida (May 17, 2024), filed as Dkt. 47 in SCAP-23-0000421.

ITEM F-1, Exhibit A

**HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES
AQUARIUM FISH PERMIT APPLICATION FORM**

Please submit completed form to:

**DIVISION OF AQUATIC RESOURCES
ATTN: Licensing
1151 Punchbowl St. RM 330
Honolulu, HI 96813**

Check Location(s) For Proposed Aquarium Permit Activity:

- West Hawai'i Regional Fisheries Managemt Area
- Island of O'ahu
- Other (specify) _____

PLEASE TYPE OR PRINT INFORMATION CLEARLY:

Fishing License No. _____ Last Name _____ First Name _____ Middle Name _____

Mailing Address _____ City _____ State _____ ZIP Code _____

Cell Phone _____ Home Phone _____ E-mail Address _____

Have you received any citations for aquatic resource violations within the past 5 years? Yes No
(If yes, please explain) _____

Aquarium Fish Permit Specific Terms and Conditions

The permittee refers to any person issued an aquarium fish permit pursuant to section 188-31, Hawaii Revised Statutes (HRS). The aquarium fish permit allows the permittee to use fine meshed traps or fine mesh nets, except throw nets, that would otherwise be illegal, to take marine life and non-game freshwater fishes for aquarium purposes. Aquarium purposes means to exhibit or display aquatic life within man-made facilities designed to maintain the aquatic life alive for a reasonable length of time. I understand that:

1. This permit is valid for one year from the date of issuance, is non-transferable, and may not be used by anyone else.
2. This permit does not exempt me from any other regulation, except that I may use fine meshed traps or fine meshed nets, except throw nets, to take marine life and non-game freshwater fishes for aquarium purposes.
3. I may not take any aquatic life that is prohibited (e.g., by minimum size, closed season, bag limit, etc.) or use nets in any area prohibited by Title 12 of the HRS or Title 13 of the Hawaii Administrative Rules (HAR).
4. I may not use any chemicals, electro-fishing devices or explosives to take aquatic life.
5. I may not kill, damage, or take any live rock or live coral.
6. I may not collect any aquatic life in any area where the taking of aquatic life is prohibited.
7. I may not sell any aquatic life unless I have a valid commercial marine license (CML). All aquatic life taken for aquarium purposes under this permit must be sold for aquarium purposes, and may not be sold for other purposes such as food.
8. If I possess a valid CML, I must submit reports as required by the CML.
9. I must maintain the proper operation of equipment and facilities designed to keep fish alive and in reasonable health.
10. I must make reasonable efforts to keep all aquatic life taken under this permit alive and in reasonable health.
11. I must allow the Department to enforce its regulations and to inspect the facilities where the aquarium life is kept.
12. I must carry the permit while engaged in collecting aquatic life for aquarium purposes.
13. If I do not have a valid CML, I may not take more than a total of five aquatic life specimens per person per day.
14. I must abide by additional specific terms and conditions imposed by the Department, such as geographical restrictions, species white lists, and annual total allowable catch limits as provided in the attached addendum.
15. If I have any criminal conviction for an aquatic resource violation within the past five years, I am ineligible for this permit.
16. Submission of this application does not guarantee issuance of a permit.
17. Prior to issuance of a permit, I must demonstrate that the environmental review requirements of the Hawai'i Environmental Policy Act, HRS Chapter 343, have been satisfied.

I understand and agree to abide by the Aquarium Fish Permit Specific Terms and Conditions, any applicable addenda, and the provisions of HRS, Title 12, Subtitle 5, and HAR, Title 13, Subtitle 4. I understand that any violation of HRS, Title 12, Subtitle 5, or of HAR, Title 13, Subtitle 4, or of any term or condition of this permit, including any misstatement of fact or circumstance, may result in the invalidation and/or revocation of this permit, and the prosecution of an enforcement action against me as provided by law. In the event of any conflict between the terms and conditions of this permit, as stated above, and the applicable administrative rules or law, the rules and law shall apply.

Signature: _____

Date: _____

ITEM F-1, Exhibit B

Department of Land and Natural Resources (DLNR)
Division of Aquatic Resources (DAR)
State of Hawai'i

Aquarium Fish Permit
Specific Terms and Conditions

Addendum
For Collection of Aquatic Life for Aquarium Purposes
Within the West Hawai'i Regional Fisheries Management Area

This addendum establishes additional terms and conditions related to the collection of aquatic life for aquarium purposes pursuant to an Aquarium Fish Permit within the West Hawai'i Regional Fisheries Management Area (WHRFMA), chapter 13-60.4, Hawaii Administrative Rules (HAR). The WHRMFA includes all state coastal waters from 'Upolu Pt. in the north to Ka Lae in the South, as defined in §13-60.4-2, HAR. I understand that:

1. This permit authorizes aquarium collecting activities within the WHRFMA only. **"Aquarium collecting activities"** refers to the use, operation, or handling of any aquarium collecting gear to take aquatic life for aquarium purposes and the handling of any aquatic life taken for aquarium purposes.¹
2. I may not take aquatic life in the WHRFMA for aquarium purposes without having been issued and possessing a valid West Hawai'i Aquarium Permit ***in addition to*** a valid State of Hawai'i Aquarium Fish Permit.
3. I must carry both permits while engaged in collecting aquatic life for aquarium purposes.
4. This permit does not authorize assistance by unpermitted individuals during any aquarium collecting activities. However, on any trip where aquarium collecting activities occur, one unpermitted individual may be on board the aquarium collecting vessel² for the purpose of operating the vessel, provided that they do not engage in any aquarium collecting activities, and provided further that they remain onboard the vessel at all times for the duration of the trip, except in the case of an emergency. The vessel operator must either have a valid individual Commercial Marine License (CML) or be covered by a valid Commercial Marine Vessel License issued for the vessel.
5. I may only take eight marine finfish species, subject to annual total allowable catch (TAC) limits, as listed in the table below:

¹ "Aquarium collecting gear", "aquarium purposes", "aquatic life", and "take" are defined in §13-60.4-3, HAR.

² "Aquarium collecting vessel" is defined in §13-60.4-3, HAR.

Common Name	Hawaiian or Local Name	Scientific Name	Total Allowable Catch (TAC)
Yellow Tang	Lau'ipala	<i>Zebrasoma flavescens</i>	200,000
Goldring Surgeonfish	Kole	<i>Ctenochaetus strigosus</i>	12,775
Orangespine Unicornfish	Umaumalei	<i>Naso lituratus</i>	5,827
Black Surgeonfish	Hawaiian Kole	<i>Ctenochaetus hawaiiensis</i>	3,152
Potter's Angelfish		<i>Centropyge potteri</i>	1,086
Brown Surgeonfish	Mā'i'i'i	<i>Acanthurus nigrofuscus</i>	800
Bird Wrasse	Hīnālea 'iwi	<i>Gomphosus varius</i>	344
Thompson's Surgeonfish		<i>Acanthurus thompsoni</i>	182

6. TAC tracking will begin on January 1 and end on December 31 each year.
7. When the TAC is close to being reached for a given species, DAR will notify permittees that collection of that species will soon close for the remainder of the year.
8. Notice will be made in writing by mail or email to the address on file with DAR no less than three days prior to the closure of the season.
9. Following a species-specific TAC closure, I may not take or possess any live specimens of the closed species within the WHRFMA for the remainder of the calendar year.
10. I must comply with the at sea reporting requirement described below:
 - a. All marine life collected must be documented in a written "at sea report" prior to final departure to the landing port.
 - b. At sea reports must be submitted to DAR digitally via email or text message to aquarium@hawaii.gov prior to final departure to the landing port, provided that in areas where there is no mobile connectivity, reports must be submitted as soon as mobile connectivity returns and prior to landing.
 - c. Collectors may create their own reporting forms, though they must follow the same format and include all fields shown in ATTACHMENT A.
 - d. For trips in which more than one permittee participates, only one at sea report per trip shall be completed, with all permittees noted on the form.

- e. Once reported at sea, all marine life must be retained and remain in the possession of the reporting permittee until transfer to a registered Commercial Marine Dealer, even if dead. Dead marine life collected under the permit may not be sold or offered for sale, but may be disposed of at the time of transfer.
 - f. The total number of fish reported at sea for each species shall not differ by more than 5% of the final aquarium catch report.
11. I must submit a final aquarium catch report with confirmed catch numbers within one calendar day after the end of each aquarium fishing trip.
- a. Reports shall include all marine life taken, including organisms that died while in possession of the permittee.
 - b. Total number of mortalities by species while in the possession of the permittee shall be noted on each final aquarium catch report.

I understand and agree to abide by the Terms and Conditions in this Addendum to the State of Hawai'i Aquarium Fish Permit and the provisions of HRS, Title 12, Subtitle 5, and HAR, Title 13, Subtitle 4. I understand that any violation of HRS, Title 12, Subtitle 5, or of HAR, Title 13, Subtitle 4, or of any term or condition of this permit addendum, including any misstatement of fact or circumstance, may result in the invalidation and/or revocation of this permit, and the prosecution of an enforcement action against me as provided by law. In the event of any difference between the terms and conditions of this permit addendum, as stated above, and the applicable administrative rules or law, the rules and law shall apply.

Signature

Date

Attachment A

WHRFMA AT SEA AQUARIUM REPORT

Licensee [Permitted]:
Other Licensee(s) [Permitted]:

Vessel Operator [Non-Permitted]:

Trip Date	Vessel ID#	Port of Landing

Species	Number in Possession
Yellow Tang	
Goldring Surgeonfish	
Orangespine Unicornfish	
Black Surgeonfish	
Potter's Angelfish	
Brown Surgeonfish	
Bird Wrasse	
Thompson's Surgeonfish	

Comments

Item F-1, Exhibit C

**Department of Land and Natural Resources (DLNR)
Division of Aquatic Resources (DAR)
State of Hawai'i**

**West Hawai'i Aquarium Permit
Terms and Conditions**

Possession of a West Hawai'i Aquarium Permit authorizes an individual to engage in aquarium collecting activities in the West Hawai'i Regional Fishery Management Area (WHRFMA). "**Aquarium collecting activities**" refers to the use, operation, or handling of any aquarium collecting gear to take aquatic life for aquarium purposes and the handling of any aquatic life taken for aquarium purposes. To be issued this permit, an individual must first agree to all terms and conditions of this permit.

Carefully read the permit terms and conditions below. **By signing this document, you are confirming that you understand and agree to all the following terms and conditions:**

General Terms and Conditions

1. The West Hawai'i Aquarium Permit authorizes permitted aquarium collection activities within the WHRFMA only. The boundaries of the WHRFMA are defined in §13-60.4-2, Hawaii Administrative Rules (HAR).
2. Only individuals possessing in their name a valid West Hawai'i Aquarium Permit may engage in aquarium collecting activities within the WHRFMA. Possession of this permit does not authorize assistance by unpermitted individuals during any aquarium collecting activities. However, on any trip where aquarium collecting activities occur, one unpermitted individual may be on board the aquarium collecting vessel for the purpose of operating the vessel, provided that they do not engage in any aquarium collecting activities, and provided further that they remain onboard the vessel at all times for the duration of the trip, except in the case of an emergency.
3. The West Hawai'i Aquarium Permit is valid for one year from the date of issuance and is non-transferable.
4. All activities performed under the West Hawai'i Aquarium Permit must be in compliance with chapter 13-60.4, HAR.
5. All West Hawai'i Aquarium Permit holders must also possess a valid State of Hawai'i Aquarium Fish Permit to engage in aquarium collecting activities within the WHRFMA. Both permits must be in the possession of the permittee while conducting aquarium collecting activities within the WHRFMA.
6. Failure to adhere to all terms and conditions of the West Hawai'i Aquarium Permit may result in penalties including revocation of the permit.

7. In addition to this West Hawai'i Aquarium Permit and a valid State of Hawai'i Aquarium Fish Permit, a valid Commercial Marine License (CML) is also required to engage in aquarium collection activities within the WHRFMA for commercial purposes. The CML, as well as both permits, must be in the possession of the permittee while conducting commercial aquarium collecting activities within the WHRFMA.

8. This West Hawai'i Aquarium Permit authorizes the limited take of eight marine finfish species, each managed under an annual Total Allowable Catch (TAC) limit as listed in the table below:

Common Name	Hawaiian or Local Name	Scientific Name	Total Allowable Catch (TAC)
Yellow Tang	Lau'īpala	<i>Zebrasoma flavescens</i>	200,000
Goldring Surgeonfish	Kole	<i>Ctenochaetus strigosus</i>	12,775
Orangespine Unicornfish	Umaumalei	<i>Naso lituratus</i>	5,827
Black Surgeonfish	Hawaiian Kole	<i>Ctenochaetus hawaiiensis</i>	3,152
Potter's Angelfish		<i>Centropyge potteri</i>	1,086
Brown Surgeonfish	Mā'ī'ī	<i>Acanthurus nigrofuscus</i>	800
Bird Wrasse	Hīnālea 'īwi	<i>Gomphosus varius</i>	344
Thompson's Surgeonfish		<i>Acanthurus thompsoni</i>	182

- a. TAC tracking will begin on January 1 and end on December 31 each year.

- b. When the TAC is close to being reached for a given species, DAR will notify West Hawai'i Aquarium Permit holders that collection of that species will soon close for the remainder of the year.

- c. Notice shall be made in writing by mail or email to the address on file with DAR no less than three days prior to the closure of the season.

- d. Following a species-specific TAC closure, permittees may not take or possess any live specimens of the closed species within the WHRFMA for the remainder of the calendar year.

9. Permittees must complete and submit aquarium fish catch reports to DLNR including:
 - a. At Sea Reporting

- i. All marine life collected must be documented in a written "at sea report" prior to final departure to the landing port.
- ii. At sea reports must be submitted to DAR digitally via email or text message to aquarium@hawaii.gov prior to final departure to the landing port, provided that in areas where there is no mobile connectivity, reports must be submitted as soon as mobile connectivity returns and prior to landing.
- iii. Collectors may create their own reporting forms, though they must follow the same format and include all fields shown in ATTACHMENT A.
- iv. For trips in which more than one West Hawai'i Aquarium Permittee participates, only one at sea report per trip shall be completed, with all permittees noted on the form.
- v. Once reported at sea, all marine life must be retained and remain in the possession of the reporting permittee until transfer to a registered Commercial Marine Dealer, even if dead. Dead marine life collected under the permit may not be sold or offered for sale, but may be disposed of at the time of transfer.
- vi. The total number of fish reported at sea for each species shall not differ by more than 5% of the final aquarium catch report.

b. Final Aquarium Catch Report

- i. Final aquarium catch reports with confirmed catch numbers must be submitted within one calendar day after the end of each aquarium fishing trip.
- ii. Reports shall include all marine life taken, including organisms that died while in possession of the permittee. Total number of mortalities by species while in the possession of the permittee shall be noted on each final aquarium catch report.

I understand and agree to abide by the West Hawai'i Aquarium Fish Permit Specific Terms and Conditions and the provisions of HRS, Title 12, Subtitle 5, and HAR, Title 13, Subtitle 4. I understand that any violation of HRS, Title 12, Subtitle 5, or of HAR, Title 13, Subtitle 4, or of any term or condition of this permit, including any misstatement of fact or circumstance, may result in the invalidation and/or revocation of this permit, and the prosecution of an enforcement action against me as provided by law. In the event of any difference between the terms and conditions of this permit, as stated above, and the applicable administrative rules or law, the rules and law shall apply.

Signature

Date

Attachment A

WHRFMA AT SEA AQUARIUM REPORT

Licensee [Permitted]:
Other Licensee(s) [Permitted]:

Vessel Operator [Non-Permitted]:

Trip Date	Vessel ID#	Port of Landing
Species		Number in Possession
Yellow Tang		
Goldring Surgeonfish		
Orangespine Unicornfish		
Black Surgeonfish		
Potter's Angelfish		
Brown Surgeonfish		
Bird Wrasse		
Thompson's Surgeonfish		

Comments

Item F-1, Exhibit D

SCAP-23-0000421

IN THE SUPREME COURT OF THE STATE OF HAWAII

**Electronically Filed
Supreme Court
SCAP-23-0000421
17-MAY-2024
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Dkt. 47 DEC**

RENE UMBERGER, MIKE NAKACHI,
KA'IMI KAUPIKO, WILLIE KAUPIKO,
CONSERVATION COUNCIL FOR HAWAI'I,
HUMANE SOCIETY OF THE UNITED
STATES, and CENTER FOR BIOLOGICAL
DIVERSITY,

Plaintiffs-Appellants,

vs.

DEPARTMENT OF LAND AND NATURAL
RESOURCES, STATE OF HAWAI'I,

Defendant-Appellee,

and

PET INDUSTRY JOINT ADVISORY
COUNCIL,

Defendant-Intervenor-Appellee.

Civil No. 1CC121002625 (JPC)
(Environmental Court)

APPEAL FROM:

[156] ORDER GRANTING IN PART
[092] INTERVENOR-DEFENDANT PET
INDUSTRY JOINT ADVISORY
COUNCIL'S MOTION TO AMEND
OCTOBER 27, 2017 ORDER TO MODIFY
OR DISSOLVE INJUNCTIVE RELIEF AND
[117] DEFENDANT DEPARTMENT OF
LAND AND NATURAL RESOURCES'
SUBSTANTIVE JOINDER THERETO,
FILED JUNE 22, 2023

CIRCUIT COURT OF THE FIRST CIRCUIT,
STATE OF HAWAI'I

HON. JEFFREY P. CRABTREE

DECLARATION OF BRYAN R. ISHIDA

I, BRYAN R. ISHIDA, declare that if called as a witness in this action I would testify of my own personal knowledge as follows:

1. I am a commercial fisheries biologist with the Division of Aquatic Resources (“DAR”), a division of Hawaii’s Department of Land and Natural Resources (“DLNR”). I work out of the DAR’s Oahu office in Honolulu. I have been employed by DAR in my current position since December 2019.
2. I hold a bachelor’s degree in Aquatic and Fishery Sciences from the University of

Washington, where I graduated in 2008. I have worked in fishery resource management since 2008.

3. Prior to taking my position with DAR, I acted as lead Monitoring and Evaluation Biologist for the Yakama Nation’s Mid-Columbia Coho Reintroduction Project. This background gives me a unique perspective on management and analysis of native fisheries.

4. I was born and raised in Hawaii and have a strong understanding of the state’s commercial and recreational fisheries. I am also an avid diver and fisherman.

5. Unless otherwise stated, the information below is based on the educational, personal, and professional experience on which I rely as a commercial fisheries biologist, as well as my personal, firsthand observations. I am competent to testify as to the matters herein.

6. As a commercial-fisheries biologist for DAR, my duties are to provide professional analysis and opinion regarding the state’s commercial fisheries. To do this, I analyze the latest scientific research, reports that DAR uses to monitor any changes in fishing practices statewide over time, and statistics extrapolated from those reports.

7. On April 12, 2024, I and other DAR staff presented an informational (non-action) item to the DLNR’s governing Board of Land and Natural Resources (“**BLNR**”). Attached to DAR’s written submission to the BLNR regarding the informational item was a 42-page document titled, “Data Review and Management Brief for the West Hawai’i Commercial Aquarium Fishery - A Report to the State of Hawai’i Board of Land and Natural Resources,” and dated March 2024 (the “**Report**”).¹

¹ I understand that the entire written submission was offered in this appeal by Plaintiffs-Appellants (hereinafter, the “**Umberger Hui**”) as Exhibit “A” to “Plaintiffs-Appellants’ Motion to Restore Injunction” filed May 10, 2024. See Dkts. 030 and 031. References to the Report that follow are to Dockets 030 and/or 031, and pin citations are to the PDF page numbers of those filings.

8. I have first-hand knowledge of the Report’s creation, contents, and purpose, as I was its primary author in terms of dictating the structure and actual writing. The analysis was performed by a DAR research statistician, who I worked together with in order to create the Report. After drafting, the Report was circulated to other DAR staff, including aquatic biologists based on the Island of Hawai‘i with first-hand knowledge of the health of the West Hawaii Regional Fishery Management Area (“**WHRFMA**” or “**West Hawaii**”).

9. Prior to making this declaration, I had an opportunity to review the Umberger Hui’s May 10, 2024 motion and supporting documents, including its Memorandum in Support (Dkt. 028), which I refer to hereinafter as the “**Restore Memo.**” The following paragraphs respond to—and attempt to correct—the many inaccurate statements I observed:

10. “**Management Plan.**” DAR did not present any “Management Plan” to the BLNR on April 12, 2024:

a. On page 5 of the Restore Memo, Umberger Hui falsely claims that DAR staff presented a “management plan” for commercial aquarium collection in the WHRFMA to the BLNR. Dkt. 028 at 11. This is patently false.

b. The Report that DAR submitted to the BLNR during its April 12, 2024 public meeting (*see* Dkts. 030 and 031) did not contain any mention of a management plan, nor was it ever referenced as a “management plan.”

c. Rather, the purpose of the Report was to provide the BLNR with a review of fisheries data to assess risks of the proposed Total Allowable Catch limits (or “**TACs**”) for eight species listed on the revised “white list” in the WHRFMA, as is clearly stated in the Report itself. Dkt. 030 at 12.

11. **DAR’s Position.** DAR has not endorsed the “preferred alternative” found in Intervenor-Defendant Pet Industry Joint Advisory Council (“**PIJAC**” or the “**applicant**”) in its “Revised Final Environmental Impact Statement for Issuance of Commercial Aquarium Permits and Commercial Marine Licenses for the [WHRFMA]” dated May 26, 2021 (the “**RFEIS**”).

a. Umberger Hui’s Restore Memo incorrectly claims that DAR’s (non-existent) “management plan” “openly endorses the ‘preferred alternative’ and ‘proposed

TACs’ in PIJAC’s revised EIS.” Dkt. 028 at 12. However, nowhere in the Report does DAR endorse aquarium collection under the preferred alternative.

b. The goal of DAR’s efforts in creating the Report was to provide the BLNR a third-party, expert analysis of the preferred alternative in the form of a risk analysis. *See* Dkt. 030 at 10, 12.

c. As for the RFEIS’s “preferred alternative,” as far as I know, *if* this alternative were adopted, the WHRFMA fishery would be the most heavily regulated fishery in state waters. *See* Dkt. 030 at 9.

12. Scientific Uncertainty. What Umberger Hui characterizes as “hedging language” by DAR is not an indication that DAR has little confidence in its findings.

a. Umberger Hui derides the Report’s use of what it deems, “hedging language,” which they claim “indicates it does not know the extent to which commercial aquarium collection affects targeted species and ecosystems.” Dkt. 028 at 11.

b. This focus on semantics ignores the inherent and intentional uncertainty of science. Science does not deal in absolutes; and in this type of scientific analysis, there is no such thing as absolute certainty. *See, e.g.,* Dkt. 030 at 12 (“DAR recognizes that uncertainty associated with this assessment is present, both relative to data quality and uncertainty about future changes due to non-fishing impacts. Such uncertainty is present in all Hawai‘i nearshore fisheries[,] and their continued existence requires some acceptance of risk.”). Instead, information is analyzed, and a conclusion is made noting level or sources of uncertainty.

c. It is my professional understanding that language indicating some level of uncertainty is a hallmark of science, for true scientists can never overlook the possibility of error or unknowns. Therefore, neither I, nor any other legitimate scientists I know of, would claim that there is “no risk” or that something “is not” a possible source of impact.

d. Conversely, matter-of-fact assertions like those the Umberger Hui frequently makes throughout the Restore Memo—*e.g.,* that continued aquarium collection *will* cause irreparable harm—are clear red flags that suggest the speaker may not be accounting for their own assumptions or bias.

e. DAR stands by its conclusion following analysis that aquarium collection “may not” be a primary driver of fishery density and abundance, and that the fishery is likely “low risk,” though *some* risk is present. *See, e.g.,* Dkts. 030 at 42 (“DAR does not find that there is justification to conclude that the proposed TACs would dramatically impact the populations of these eight species within the WHRFMA. While there is no doubt that harvest would have some impact, it seems unlikely that these species within the WHRFMA would be threatened at the population level by this proposed action.”), and 031 at 10 (“Based on these findings, DAR assesses the direct risk of significant population and habitat impacts as low.”). These findings both directly challenge the

substantive validity of the Umberger Hui’s matter-of-fact claims and also cast doubt on the legitimacy of Umberger Hui’s allegedly scientific sources.

13. Sustainability. I know of no previous evaluations of stock status suggesting that historical commercial aquarium collection in West Hawaii was “unsustainable”:

a. In discussing the alleged “harms” Umberger Hui believes will occur if aquarium (or “AQ”) collection/take in West Hawaii is allowed to resume, they suggest that any continued take at (or above) historical levels will be inherently “unsustainable.” See Dkt. 028 at 12–13. This is false.

b. I know of no legitimate, reviewed, scientifically defensible evidence (*e.g.*, stock assessment) that AQ take at the WHRFMA population level was ever “unsustainable” from a fisheries management standpoint.

c. Indeed, as shown in the Report, the levels of take proposed in the RFEIS’s preferred alternative were deemed to likely pose a low risk of widespread impact to the WHRFMA populations such that their viability would be affected. Dkt. 030 at 42.

d. On page 6 of the Restore Memo (Dkt. 028 at 12), the Umberger Hui takes issue with the RFEIS’s proposal for “catch quotas totaling nearly 250,000 fish per year” and implies that this is an unreasonably high number that would be unsustainable for the WHRFMA fishery. I disagree. Although 250,000 fish seems like a large amount, Umberger Hui fails to recognize that DAR estimated (our most conservative estimate) combined West Hawaii populations of these eight species to be approximately 9,837,955 fish. Harvest of 250,000 fish per year would equate to 2.5% removal of this combined total. As is noted in the Report, along with these being intentionally conservative estimates there is strong reason to believe that they may be biased low.

e. By decrying status quo or greater levels of take, I believe the Umberger Hui is implying that impacts of previous take are known to be unsustainable. However, I know of nothing to substantiate this claim.

f. Ultimately, after review of the Restore Memo and its alleged supporting evidence, I believe that the Umberger Hui is operating with the assumption that the rate of taking fish (*e.g.*, how quickly the TAC is met) determines how “sustainable” the fishery is. However, in fisheries managed under Annual Catch Limits (ACLs) or TACs, there is often no restriction on how quickly the limit is met. Local examples are Main Hawaiian Island Deep-7, Kona crab, and uku fisheries.

14. Historical Take. Evidence does not suggest that historical take has “depleted” populations of targeted species to the point of WHRFMA population instability or collapse:

a. Umberger Hui’s blanket claims in the Restore Memo that “[f]ish populations in areas open to collection remain noticeably less abundant than in protected

areas” is, in my professional judgment, not scientifically supported. In fact, DAR’s marine biologists and expert analysts have described considerable overlap in juvenile fish density between open and closed areas in West Hawaii. *See, e.g.*, Dkt. 030 at 31.

b. Moreover, even in the open areas, proposed size limits would protect both newly settled recruits and larger adults of the main fishery target – yellow tang. In section 6.2 of the Report (Dkt. 030 at 43), for example, DAR estimates the impact of harvest just in the open area, and just to fish of legal size. DAR did not see evidence that the proposed take would “wipe out” these areas, as the Umberger Hui suggests.

c. Granted, this analysis did not account for areas of heavier harvest. However, Umberger Hui omits an important factor—the behavior of commercial fishers. Fishers, especially commercial fishers that must focus on efficiency and expenditure of effort to maintain profitability, tend to fish where fish are most abundant. This means that the likelihood of a maximum of seven commercial aquarium collectors (the maximum that would be allowed pursuant to the RFEIS), progressively depleting one area completely is counterintuitive.

d. Although Umberger Hui might point to limited studies and anecdotal data showing impact, they have yet to refute what DAR has showed at a broader, WHRFMA-wide, scale. Therefore, my professional opinion is that the impact of aquarium collection on the fishery itself is far less clear-cut than Umberger Hui claims.

15. Concentrated Collection. I find little legitimate basis to support Umberger Hui’s alarmist concerns of “severe” depletion of local populations of fish, *e.g.*, Dkt. 028 at 13:

a. Though concentrated take can decrease fish abundances in an area of focused fishing pressure, under the level of take suggested in the RFEIS’s “preferred alternative,” evidence suggests that the threat of wiping out local populations of target species would be highly unlikely.

b. First, it is questionable whether the Umberger Hui’s apparent suggestion that management should be undertaken on a smaller scale—*i.e.*, that take quotas in smaller subareas within the WHRFMA would offer a means to alleviate localized depletion concerns—would satisfy their concerns regarding such impacts. Creating TACs, even at a relatively fine spatial scale, will not completely guard against some possibility of varying impacts of the fishery across the WHRFMA. For, as with any fishery, the chance of variable fishing pressure is present; there is no feasible way that DAR can prevent *all instances of higher fishing effort and resulting impacts in certain areas*.

c. Second, the current dataset for this application—taken from the NOAA Pacific Island Fisheries Science Center: Ecosystem Sciences Division (PIFSC-ESD) (*see* Dkt. 030 at 13)—is appropriate. Indeed, NOAA intentionally designed West Hawaii surveys to isolate the region for analysis. *See generally*, Dkt. 030 at 3. They did not, however, do this at a finer scale—*i.e.*, they did not ensure that the random stratified

sampling design adequately sampled enough to isolate areas at a finer scale. Simply put, *nobody* currently has adequate data to perform this level of area-based quota allocation effectively.

d. Third, even with TAC's assigned at a finer scale, localized depletion is still possible. Localized depletion is a threat in all fisheries as effort is rarely controlled at a precise geographic scale. As a result, it is important to consider likely behavior of commercial fishers—they tend to fish where fish are present, not where the fish are absent. Aquarium collectors, who are known to generally conduct their collection activities by boat, can cover a wide geographic area. This gives them a means to both scout areas in order to locate large concentrations of fish and also to increase their understanding of fish distribution so they can better rotate between areas to maximize their efficiency. Logically, repeatedly harvesting an area until there are no fish left would quickly result in diminishing returns as catch per unit effort falls with each trip. DAR commercial data shows that these fish are extremely valuable to the collectors, so I believe that the assumption that aquarium collectors would deplete their own fishing areas is counter-intuitive.

e. As to the contention about “[r]emoving herbivorous fish *en masse*” (Dkt. 028 at 13), DAR does not dispute that *any* harvest of herbivores has *some* impact on total herbivory. The impact to reef resilience (a product of herbivory), however, is less certain. As noted in the Report, it remains unclear if removal of a percent of these herbivorous fish species will have any meaningful impact on coral reef resilience following, for example, a bleaching event.

16. “Irreparable” Harm. Evidence does not support the claim that potential impacts of aquarium fishing on the WHRFMA fishery are flatly “irreparable,” whether allowed for a short-or-long time:

a. Monitoring, TACs, near 50% no-take areas, and in the case of yellow tangs limitations on the take of small and large yellow tangs are known to provide significant safeguards against irreparable harm.

b. The reproductive biology of the species in question (*e.g.*, being broadcast spawners²) also makes the prospect of complete depletion in an area scientifically impossible. This is because, via protection of nearly 50% of the West Hawaii coast and limitations on the harvest of adult in the open area, a significant proportion of the breeding population would be under complete protection, thus ensuring constant larval

2 This refers to their method of reproduction. Males and females dart up into the water column and release (“**broadcast**”) large quantities of eggs and sperm. The eggs are fertilized and eventually hatch into larvae. Eggs and larvae float near the surface and drift with currents for many days over many miles before the larvae are mature enough to swim down and “settle” onto the reefs.

production over time.

c. A primary take-away from the Report was that the potential harmful impacts by aquarium fishers under the preferred alternative would likely *not* be irreparable.

17. I find little basis for the Umberger Hui’s claim that “allowing permit issuance even just for a short time until *Kaupiko* is decided risks enabling and incentivizing a rush to collect as many fish as possible during such an intervening period.” Dkt. 028 at 13. In fact, I would anticipate that if the fishery does re-open—even if only briefly—the opposite would be true.

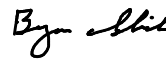
a. It is critical to note that opening the West Hawaii fishery would not be a similar situation to the closure of the West Hawaii fishery because *all* commercial aquarium collection statewide, regardless of gear used, has been prohibited since January 2021. Over three years later, any opening of the fishery will logically take time to re-establish supply chain and holding facilities likely would not be able to handle an extremely large and rapid catch.

b. Additionally, it is questionable whether flooding the market initially upon reopening would be in the best interest of the collectors. Forgoing a steady stream of fish to the market in favor of initial oversaturation will likely result in diminished economic returns for the collectors.

c. Moreover, even if the fishery does pulse at the reopening, I would expect TACs to ensure that overall catch stays within levels deemed to be of low risk to the viability of the population.

18. I hereby declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge.

DATED: Honolulu, Hawai‘i, May 17, 2024.



BRYAN R. ISHIDA
Commercial Fisheries Biologist
Division of Aquatic Resources, DLNR