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FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
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Honolulu, Hawai‘i 96850

State of Hawai‘i
DEPARTMENT OF LAND AND
NATURAL RESOURCES
Division of Forestry and Wildlife
1151 Punchbowl Street, Room 325
Honolulu, Hawai‘i 96813

In Reply Refer To:
2022-0041917

July 6, 2022

Mr. Jade T. Butay
Director
Hawai‘i Department of Transportation
869 Punchbowl Street
Honolulu, Hawai‘i 96813

Subject: Comments on the Hawai‘i Department of Transportation’s Implementation of the Kaua‘i Seabird Habitat Conservation Plan (Incidental Take Permit TE74138D-0/Incidental Take License ITL-30)

Dear Mr. Butay:

This letter serves for the Hawai‘i Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) and the U.S. Fish and Wildlife Service (Service), collectively referred to herein as the “Resource Agencies”, to provide comments and recommendations on Hawai‘i Department of Transportation’s (HDOT) implementation of the Kaua‘i Seabird Habitat Conservation Plan (KSHCP) (Incidental Take Permit TE74138D-0/Incidental Take License ITL-30). This feedback is compiled from agency review of your 2021 annual report, your February 28, 2022 annual participant meeting, and the March 14, 2022 review by the Hawai‘i Endangered Species Recovery Committee (ESRC). Our comments have been organized by category pursuant to the biological goals and objectives of the KSHCP and are stated below.

Facility Lighting: KSHCP Biological Objective 1.A.

> *Avoid and minimize the impacts of the taking of Covered Seabirds due to light attraction by removing or turning off lighting and altering light structure and function by the end of Year 1, as specified in PIPs.*

Līhu‘e Airport

In 2021, a new general aviation services building was constructed for Air Services Hawai‘i in the General Aviation area on the north ramp. The newly constructed features are fixed based support facilities located within the existing light field along the North Ramp and include a new building to replace temporary trailer style offices, parking area, and installation of five parking lot lights

equipped with LED and full cut off fixtures. In 2020, Līhuʻe Airport implemented a portion of Phase 3 lighting upgrades of 18 new high mast light fixtures with full cut-off LED fixtures along the main commercial terminal ramp (10), cargo terminal ramp (3), commuter terminal ramp (2), and general aviation and north ramp (3), and operated with these new lighting configurations in 2021.

Nāwiliwili Harbor

In 2017, all high-pressure sodium light fixtures were replaced with downward pointed, full cutoff LED light fixtures. The high-mast light fixtures are also full cut-off, downward-pointing LED fixtures compliant with night sky protection strategy under HRS Section 201-8.5.
Standard security and worker safety procedures at Nāwiliwili Harbor require that high mast lights be turned on to full illuminance when active cargo operations are in progress and only at the specific pier where those operations are in progress. You stated there were no cruise ships that visited Nāwiliwili Harbor during the 2021 seabird fallout season. When nighttime operations are completed, the tall mast lights are reduced to a lower setting (roughly 15 percent of illumination capacity). You have indicated that no further proposed changes are presently being considered.

Port Allen Harbor

In 2017, all wall mounted light fixtures were replaced with downward pointed, full cutoff LED light fixtures. The upgraded downward pointing wall mounted light fixtures are compliant with night sky protection strategy under HRS Section 201-8.5. HDOT is also moving into the implementation phase of a project to replace portions of the warehouse siding and will apply a paint color and texture that once completed should reduce glare and further minimize light attraction exposure risk for seabirds at HDOT Port Allen Harbor. This work is expected to be complete prior to the 2022 seabird fallout season. You state that no additional changes are proposed in 2022.

Standard security, worker, tenant, and public safety procedures at HDOT Port Allen Harbor require that some facility lighting remain on at night. The lights in the parking lot and along the seaward side of the warehouse are programmed to be on 6:30pm – 8:30pm each night to provide for the safety of workers and visitors disembarking from tour boats and departing from the pier and parking area. At 8:30pm the wall mounted lights are reduced to 50 percent capacity (i.e. every other wall mounted light is turned off) and remain at this level until dawn each day. You state that HDOT Harbors Division will be applying a new paint color and texture to the south side of the main warehouse that is intended to reduce glare caused by the wall-mounted lights and this is expected to further minimize light attraction exposure for seabirds and contribute to biological goals and objectives at HDOT Port Allen Harbor once complete prior to the 2022 seabird fallout season.

Agency Comments or Recommendations:

At Līhuʻe Airport, you have stated these the lighting upgrades and other measures combined, are considered to advance the efficacy of seabird light attraction minimization and contribute to

achieving biological goals and objectives. We appreciate that you continue to seek ways to minimize impacts to the Covered Species and encourage you to update any seabird search plans in conjunction with your new facility lights.

Please provide photos of the Nāwiliwili tall mast lights during full illuminance and the reduced lower setting that is typically used at the facility after nighttime operations are complete. Please confirm if the 15 percent illumination capacity is the reduced lower setting that is typically used.

On May 18, 2020, during the ESRC approval meeting you stated that at Port Allen you would lower the wall mounted lights to reduce the reflective glare off the warehouse building as it had been requested during the public review process. As stated in your 2020 annual report, you were in the design phase of a project to replace the exterior wall panels at the Port Allen Warehouse and had planned to lower the height of the wall mounted lights as part of that project. You had determined that following your evaluation during design phase, it was determined that lowering the height of the lights is not feasible due to concerns related to lighting safety and security requirements. You stated you were proposing to paint the wall panels underneath the lights to a darker and duller paint color to reduce the glare and reflection. At that time, HDOT Harbors Division was in the process of obtaining approval of the proposed color change from DLNR State Historic Preservation Division (SHPD) because this structure is considered of historic significance. You noted that you would provide an update upon receiving a determination from SHPD. In your 2021 annual report you stated that the new paint color and texture will be applied to the south side of the main warehouse. We recommend you reconsider solutions to minimize the lights located on the side of the warehouse. We also recommend you continue your efforts to complete the wall panel project prior to the 2022 seabird season.

The agencies were notified of a bright light at the front of the warehouse by DOFAW Kauaʻi. On Oct 2021, DOFAW Kauaʻi called the HDOT Port Allen office and spoke to Robert "Bob" Crowell about the bright light that did not appear to be shielded to prevent upward lighting. On November 17, 2020, DOFAW Kauaʻi contacted Bob again to request HDOT to address the same bright light. Bob confirmed that the light was on a timer (scheduled to go off at 10:00pm) and is used to provide adequate lighting for workers of tour boats after their clean up, wash down of vessels, and walk back to offices or cars. You also mentioned the light is full cut-off; however, the poles are currently angled; therefore, functionally these should not be considered full cut-off lights because they are ineffective at shielding the light source. You have indicated this light is provided for safety and are directed towards the parking lot but will follow up with Bob. We recommend you re-angle this light so that it is downward facing and full cut-off and add other seabird friendly lighting to provide for safety in the parking lot.

Figure 1. Photo of bright warehouse light at Port Allen.

Overall, except for certain lights, you have shown your commitment for compliance with the KSHCP lighting guidelines. We encourage you to continue your efforts to assess and modify all facility lighting to further reduce the potential impact to the Covered Species.

Predator Control: KSHCP Biological Objective 1.B.

> *Minimize mortality of Covered Seabirds downed due to light attraction by implementing actions to reduce presence of free-roaming seabird predators such as cats and dogs at Participant facilities, as specified in PIPs.*

Līhuʻe Airport

Līhuʻe Airport is separated into two distinct search areas: the Aircraft Operations Area (AOA), a restricted area that requires security clearance and the public access areas, which consist of the terminals, parking areas, portions of the rental car facilities, and several roadways and access corridors which interconnect the various parts of the airport facility. USDA-Wildlife Services (WS) staff conduct a year-round animal control program in the AOA and public access areas at Līhuʻe Airport with an emphasis on free-roaming cats but also includes dogs, pigs, and any other free-roaming animals that might present a threat to downed seabirds or represent an aviation hazard. WS normally set and maintain Tomahawk-style live traps for cats as they are reported or observed. Cats were observed and reported by downed seabird monitors in the public access areas of Līhuʻe Airport on 57 of the surveys that were performed (31 percent presence, n=184 individual surveys) in 2021. Numbers of cats observed ranged from 0-6 and averaged 1.08 per day. Cats were most frequently observed in the vicinity of the rental car facilities and public parking area, and to a lesser degree adjacent to air cargo facilities and United Parcel Service; cats were reported much less frequently from Ahukini Road in 2021. The trapping effort at Līhuʻe Airport during the 2021 seabird fallout season consisted of 8 traps set in the public area and 16

traps in the AOA for a total of 24 traps and 2,208 trapping days. A total of 12 cats were captured and removed from Līhu‘e Airport during the seabird fallout season yielding a capture success rate of 0.005 cats/trap day. Historically, captured cats were delivered to the Kaua‘i Humane Society. However, this practice of delivering captured cats to there has changed and now WS handles the processing and removal of predators directly. H.T. Harvey & Associates searchers provided daily or as-compiled reports of predators that were observed in the public areas at Līhu‘e Airport during the daily search and monitoring surveys; and they conveyed this information to WS to facilitate trap placement and effort.

Nawiliwili Harbor

Predator control activities at Nāwiliwili Harbor in 2021, consisted of initiating trapping efforts during the first week in September to reduce the numbers of animals on site prior to the beginning of the fallout season. H.T. Harvey & Associates searcher personnel started recording the number and locations of free-roaming animals (only cats were present) that were observed during downed seabird search and monitoring activities (beginning on September 15) and reporting those observations quickly and efficiently to HDOT Harbors Division personnel. Cats were observed by downed seabird monitors at Nāwiliwili Harbor on 50 of the surveys that were performed (54 percent frequency of occurrence) in 2021. Numbers of cats observed ranged from 0–4 and averaged 1.62 cats per survey, with only 1 cat observed after November 21st. Cats were observed in the open yard, in the vicinity of the north fenceline adjacent to the public beach park, near the entrance to Young Brothers, and near the Matson and Young Brothers warehouses. Harbors Division staff deployed 2 Tomahawk-style live traps at the harbor and checked and maintained these daily and set locations were selected based on descriptions of the locations of free-roaming cats during nightly monitoring activities. The trapping effort at Nāwiliwili Harbor operated for approximately 100 days with 2 traps set per day, for a total of 200 trap days. A total of 7 cats were captured and removed from Nāwiliwili Harbor between September 13 and December 1 during the 2021 monitoring season; 6 of these were removed between September 13–28 and the last cat was captured and removed on December 1. No dogs or pigs were reported inside the harbor. The overall capture success rate of 0.035 cats per trap night, or 1 cat per 13 trap days, amounting to roughly one cat captured and removed every 12–14 days. The frequency of occurrence for cats observed at Nāwiliwili was 0.54 (n=50 days) and the average number of cats observed per day was 1.62 (n=81).

Prior to implementing KSHCP initiatives at Nāwiliwili Harbor in 2021, HDOT Harbors Division personnel at Nāwiliwili Harbor produced signage and communicated directives to tenants regarding the no cat feeding policy in place at Nāwiliwili Harbor. Harbors Division retained the services of a licensed local animal control group to remove cats, same day, when cats were captured at Nāwiliwili Harbor. The services provided enabled cats that were captured to be handed off to the service provider for quick and efficient removal.

Port Allen Harbor

Predator control activities at HDOT Port Allen Harbor in 2021, consisted of initiating trapping efforts during the first week in September in an effort to reduce the numbers of animals on site prior to the beginning of the fallout season. H.T. Harvey & Associates searcher personnel

recorded the number and locations of free-roaming cats that were observed during downed seabird search and monitoring activities, during both evening and pre-dawn survey periods and reporting those observation quickly and efficiently to HDOT Harbors Division personnel. Cats were observed by downed seabird monitors at HDOT Port Allen Harbor on only 9 of the 184 surveys (<1.0 percent frequency of occurrence) that were performed in 2021. Numbers of cats observed ranged from 0–2 and averaged 0.11 cats observed per monitoring day (n=92). Harbors Division staff deployed two Tomahawk-style live traps at the harbor Monday through Friday. Traps were not set on weekends because of concern that traps would not be checked on days when HDOT staff are not present on site. Because Port Allen is a small facility (just over one acre in area) and very few cats were being observed and reported by monitors, traps were moved and set locations chosen based largely on descriptions of the locations reported by the monitors. Harbors Division retained the services of a licensed local animal control group to take possession of cats, if captured, and remove them from the facility the same day. However, no cats or other free-roaming animals were captured, and no dogs were observed within the HDOT Port Allen Harbor facility in 2021. You have stated that adjacent properties and facilities have active cat control programs in place, which began in earnest in 2020. You have also stated that you observed a corresponding decline in the numbers of cats present at HDOT Port Allen Harbor beginning in 2020 and that trend was evident and more pronounced in 2021.

You submitted an implementation plan for Līhuʻe Airport and Nāwiliwili and Port Allen Harbors to the agencies on June 9, 2021.

Agency Comments or Recommendations:

We appreciate that at Līhuʻe Airport, you have implemented your program to include WS, rather than the Kauaʻi Humane Society, to handle the processing and removal of predators. We also appreciate that predator control is conducted year-round and especially intensified prior to the seabird season until the end of the season. You have provided data from the predators that were observed September 15–December 14. While this provides a data of predators that are observed on the landscape for the duration of the seabird season, it does not provide a dataset that we can use to evaluate the complete efficacy of your predator control program. Additional surveys should be conducted so that data is collected prior to the start of the intensified trapping in addition to the data that you currently collect to demonstrate effective control or reduction of predators prior to fallout with birds on the ground. We recommended that this data be collected with the goal of removing as many predators as possible before September 15th so that when the seabird season begins, you can demonstrate that the level of predators on the landscape has already been effectively managed. As we discussed, resource agencies require this needed information to evaluate the efficacy of the predator control program as well as provide any other recommendations for future predator control implementation.

We understand that at Nāwiliwili you have feral cat colonies on adjacent properties. We appreciate your ongoing efforts to address feral cat colonies that affect your facility; however, we recommend you continue to implement predator control and assess whether you need to increase efforts based on the level of predators occurring on the landscape. We also encourage you to work with neighboring properties to reduce the potential for predators at the facility.

At Port Allen, we recommend using dedicated monitors to document predators that are separate from your dedicated seabird searchers. Please also provide the results of the predator monitoring data from 2021.

In addition, an effective predator control program ensures that any seabirds that are downed can persist on the landscape in order for searchers to find and retrieve birds. In the absence of a highly effective predator control program prior to the seabird season, not all birds that fallout will be able to be recovered and taken to a rehabilitation facility. Instead, it is likely that predators will have taken some birds and therefore, birds may not be observed. Therefore, a highly effective predator control program will result in better implementation of the Biological Objectives of the KSHCP.

Staff Training: Biological Objective 1.C.

> *Minimize mortality of Covered Seabirds downed due to light attraction by conducting annual Worker Seabird Awareness and Response Training (WSART), as specified in PIPs.*

Līhu‘e Airport

All individuals who participated in searches of Līhu‘e Airport facilities were provided training on seabird awareness, the seabird monitoring protocol, downed seabird response protocol, and KSHCP reporting procedures. A total of six PowerPoint presentations were made to 103 staff members across that included Maps, Training Module, Fact sheet, discussion of search area characteristics, historic fallout distribution, demonstration of seabird search methods and procedures, rescue techniques, review of 2021 data sheets, and additional resources as needed. These were developed and presented by a contractor (H.T. Harvey & Associates).

Outreach conducted in 2021 was substantial and included five presentations to airport personnel, airport staff and contractors, rental car company employees and managers and visitors. Written correspondence was delivered to teams of rental car company managers with overview of seabird light attraction and minimization tools, rescue and reporting procedures, distribution of Fact sheet; engaged in follow up with several managers to reinforce awareness and offer support and encourage staff to review and become familiar with the material in the training module. Information was presented to rental car staff with information on seabirds and light attraction risk, how to minimize by turning off unnecessary lights, regular check-ins with staff on duty during search activities. Kaua‘i Airports District Manager issued a memorandum to “All Parties Concerned” to alert airport personal and tenants regarding the seabird fallout season, procedures for rescue and reporting when seabirds are found (dead or alive), the role of WS, and to reiterate the airport policy of no cat feeding anywhere at the airport. Finally, a seabird light attraction Fact sheet containing written materials with overview of seabird light attraction issues, minimization tools, rescue and reporting procedures was widely distributed among the Līhu‘e Airport workforce with an emphasis on reaching employees and contractors who are active in the AOA. As part of your outreach efforts, the Fact sheet was posted in worker common areas and bulletin boards where it is visible to staff. A fact sheet was also posted in the public areas of the airport to inform the general public.

Nāwiliwili Harbor

A total of four PowerPoint presentations were made to 12 staff members working at Nāwiliwili Harbor across that included a review of the Fact sheet, KSHCP Downed Wildlife Protocol and Incident Documentation and Reporting Form. These were developed and initiated by a contractor (H.T. Harvey & Associates).

Periodic check-ins with HDOT Harbors Division staff at Nāwiliwili Harbor was done to provide advance notice of periods of higher fallout probability, heighten awareness, and revisit fundamental elements of seabird awareness, rescue, response, and reporting requirements.

Port Allen Harbor

A total of three PowerPoint presentations were made to 12 staff members providing administrative support or working at HDOT Port Allen Harbor that included a review of the Fact sheet, KSHCP Downed Wildlife Protocol and Incident Documentation and Reporting Form. Periodic check-ins with HDOT Harbors Division staff at HDOT Port Allen Harbor and Nāwiliwili Harbor to inquire where assistance may be needed, provide advance notice ahead of periods of higher fallout probability (new moon), heighten awareness, and revisit fundamental elements of seabird awareness, rescue, response, and reporting requirements was also done in 2021.

Agency Comments or Recommendations:

We acknowledge you have conducted periodic check-ins with HDOT Harbors Division staff at Nāwiliwili Harbor, Matson, and Young Brothers were done to provide advance notice of periods of higher fallout probability, heighten awareness, and revisit fundamental elements of seabird awareness, rescue, response, and reporting requirements. We appreciate your efforts to continually stay engaged to ensure that staff and tenants are actively involved. It appears that the training provided by H.T. Harvey & Associates for all sites have resulted in good training materials for seabird searches.

Outreach: Biological Objective 1.D.

> *Minimize mortality of Covered Seabirds downed due to light attraction by implementing seabird awareness outreach to the public, guests, and customers at Participant facilities as specified in PIPs.*

At Nāwiliwili Harbor, printed outreach material was posted in all visible staff areas for occupants of the harbor. Outreach for non-harbor staff was extensive. Beginning of the season outreach with tenants on seabird light attraction fallout and procedures for notifying facility POCs and implementing proper rescue procedures was conducted. This included Matson supervisors and staff, Young Brothers managers and lead foreman, and other HDOT and Nāwiliwili Harbor tenants. Periodic check-ins with HDOT Harbors Division staff, Matson, and Young Brothers were done to provide advance notice of periods of higher fallout probability, heighten awareness, and revisit fundamental elements of seabird awareness, rescue, response,

and reporting requirements. The seabird awareness Fact sheet was posted in the main harbor office, in worker common areas, and on the bulletin board in the staff break room in clear view of HDOT Harbors staff. The seabird awareness factsheet was also posted in common areas of the Young Brothers office trailer and in the Matson office and staff staging area in the warehouse, in clear view of staff, and in the security shack at the main entrance to Nāwiliwili Harbor. Finally, the seabird awareness factsheet was posted on the public bulletin board in the Harbor Office, in clear view of visitors and the public.

At Port Allen, the seabird awareness fact sheet was posted in the window of the harbor agent's office facing the pier where visible to staff, tenants, and the public and inside the storage warehouse in plain view to all facility users including worker common areas. Copies of the fact sheet were also delivered to tenants (charter and sightseeing tourboat operators) during the first week of the fallout season. Multiple copies of the 2021 Seabird Light Attraction Fact sheet were provided, and managers and vessel captains were encouraged to post the Fact sheet in plain view and make copies available to customers and staff.

Agency Comments or Recommendations:

While we recognize that HDOT cannot control members of the public to comply with the conditions of the ITP/ITL under the KSHCP, however, it was documented during the Searcher Efficiency Trials at Līhuʻe Airport that there are large areas of parking lots. We understand that these areas are searched by dedicated Līhuʻe Airport downed seabird monitoring personnel which included H.T. Harvey & Associates field biologists conducting night and morning searches of the publicly accessible portions of Līhuʻe Airport, outside of the secure AOA; WS staff biologists inside the AOA and in public access areas, and airport security personnel. We believe that increasing public outreach and education would also increase the chances that any bird grounded in a parking lot, or anywhere else on the island, would be found by a member of the public.

As evidenced from the downed Newell's shearwater found at the Dollar-Rent-A-Car facility on October 29, 2021, it is evident that your outreach to tenants of HDOT facilities is relevant. Although the reporting process was not conducted as required, we acknowledge that you diligently work on providing additional reminders to tenants emphasizing the appropriate notification procedures for down seabirds. We appreciate and acknowledge that your outreach is beneficial to achieve the goals and objectives of the KSHCP for the covered Species.

Recovery of Downed Seabirds: Biological Objective 1.F.

> *Minimize mortality by implementing recovery and release of Covered Seabirds downed due to light attraction through the Save Our Shearwaters (SOS) program or other certified rehabilitation facility.*

Līhuʻe Airport

In 2021, dedicated Līhuʻe Airport Downed Seabird Monitoring Personnel included H.T. Harvey & Associates field biologists conducting night and morning searches of the public access

portions of Līhuʻe Airport, outside of the secure AOA; WS staff biologists performed regular and routine wildlife surveillance inside the AOA and in public access areas with a heightened focus on detecting downed seabirds in all portions of the airport during the fallout season; although not their primary duty, airport security personnel received training that they employed during early pre-dawn security surveillance rounds within the public portion of the airport each day. Several of the individuals who participated in searches of the Līhuʻe Airport public access facilities in 2021, have been participants in the monitoring program for multiple seasons and receive annual refresher training on downed seabird response protocols, seabird fallout patterns, overall seabird awareness, and procedures for proper reporting prior to initiating search and monitoring activities on September 15.

Searches for downed seabirds were conducted twice each day at Līhuʻe Airport as prescribed and outlined in the KSHCP and HDOT's Participant Inclusion Plan. Monitoring surveys were conducted nightly, within 3-4 hours after sundown and then again within 1 hour of sunrise, on consecutive days beginning on September 15th and concluding on December 15th. The AOA is searched twice each day by WS biologists as part of the airport Wildlife Hazard Management Program. H.T. Harvey & Associates trained searchers conducted the evening and pre-dawn searches of the public access areas, and Airport Security conducted pre-dawn surveillance of the public access areas which augmented the morning search efforts by dedicated search personnel. WS performed 184 surveys comprised of early morning and evening searches of the AOA and including substantial portions of the public access area consisting of Līhuʻe Airport Gates 3-10 Jetways; Līhuʻe Airport Security Access Alpha, Bravo, Charlie, and Delta Gates; Rental Car Gates, Terminal Passenger Drop Off, Airport Cargo Parking and Ramp; Fuel Farm; Employee Temporary Parking; Airport Maintenance Baseyard Area. H.T. Harvey & Associates personnel conducted 184 searches of all searchable portions of the public access areas of Līhuʻe Airport on consecutive nights and mornings. Furthermore, Airport Security and WS conducted additional surveillance of the AOA and public access areas of the airport throughout the day from sunrise to 2 hours after sunset. The coordinated and repetitive on-the-ground surveillance and dedicated search effort by multiple staff provided an effective monitoring program at Līhuʻe Airport.

Nāwiliwili Harbor

Searches were conducted twice each day at Nāwiliwili Harbor as outlined and prescribed in the KSHCP and HDOT's Participant Inclusion Plan. These surveys were performed each night within 3-4 hours after sundown and then again within 1 hour of sunrise, on consecutive days beginning on September 15th and concluding on December 15th. Nāwiliwili Harbor is a secure facility and requires personnel conducting work to possess valid Transportation Workers Identification Certification and Marine Security Clearance issued by the Department of Homeland Security. H.T. Harvey & Associates assigned trained field biologists to conduct searches of Nāwiliwili Harbor each night and provided training that enabled harbor security personnel to conduct dedicated seabird surveillance during the hour prior to sunrise. H.T. Harvey & Associates biologists conducted 92 searches on consecutive nights. Harbor security performed 92 consecutive searches within an hour of dawn during 2021, in addition to hourly surveillance of the entire facility.

Downed Seabird Monitoring Personnel assigned to Nāwiliwili Harbor included H.T. Harvey & Associates field biologists and harbor security personnel. In addition, HDOT, Matson, and Young Brothers personnel provided incidental observational capacity that increased the probability that birds not detected during the dedicated nighttime searches would be found by workers at the facility during the day. All of the individuals who participated in regular and routine searches of Nāwiliwili Harbor facilities were presented with training and informational content on seabird awareness, response, rescue and KSHCP reporting procedures. Specific personnel responsible for conducting searches at Nāwiliwili Harbor were Mitchell Craig (H.T. Harvey & Associates field biologists) and several security personnel under the supervision of Ryan Campos (Allied Universal Security Services) and Robert Cecconi (HDOT Harbors Division).

Implementing the monitoring protocols at Nāwiliwili Harbor was achieved by coordinating search and monitoring effort among H.T. Harvey & Associates field biologists, harbor security and HDOT. The effectiveness of the monitoring program was enhanced by the training that was provided to each group of monitors prior to the beginning of the seabird fallout season and continued outreach as needed throughout the season to ensure continuity and adherence to fundamental procedures. We monitored the thoroughness of the survey effort by tracking quality and timeliness of coordination, documentation and reporting of downed seabird incidents when they occurred, and there were no circumstances that triggered mid-term corrections or retraining with respect to the standard monitoring protocols and response procedures that were followed in 2021.

Port Allen Harbor

Searches were conducted twice each day at HDOT Port Allen Harbor as outlined and prescribed in the KSHCP and HDOT's Participant Inclusion Plan. These surveys were performed each night within 3-4 hours after sundown and then again within 1 hour of sunrise, on 92 consecutive days beginning on September 15th and concluding on December 15th. HDOT Port Allen Harbor is open to the public 24 hours per day with no on-site security presence. H.T. Harvey & Associates assigned trained field biologists to conduct the twice daily searches of HDOT Port Allen Harbor. H.T. Harvey & Associates biologists conducted 184 searches on consecutive nights and mornings in 2021.

The downed seabird monitoring at HDOT Port Allen Harbor was assigned to two trained H.T. Harvey & Associates field biologists, Rick Foulks and Mitchell Craig, in 2021. Training included orientation to the searchable area and informational content that included seabird awareness, response, rescue and KSHCP reporting procedures, in addition to important characteristics and features of seabird fallout and those associated with the facility itself. In addition to the dedicated searchers, HDOT staff present on site during normal daytime work hours were also trained and capable of detecting downed seabirds and initiating the proper procedures for handling and reporting downed seabird incidents.

Implementing the monitoring protocols at HDOT Port Allen Harbor was achieved by closely coordinating monitoring activities with HDOT Harbors Division staff and H.T. Harvey & Associates field biologists. The effectiveness of the monitoring program was enhanced by the

training that was provided to the monitors prior to the beginning of the seabird fallout season and continued outreach, as needed, throughout the season to ensure continuity and adherence to fundamental procedures. You stated that you monitored the effectiveness of the survey effort by tracking quality and timeliness of coordination, documentation, and reporting of survey data, and level of preparedness for responding to and handling downed seabird incidents in the event they occurred.

Agency Comments or Recommendations

Please describe and clarify if searches occur before or after 1 hour of sunrise.

You mentioned that some of the SOS recovery boxes at/near the airport have been removed. Please include more detail on the availability of seabird boxes at/near the airport. The take numbers in your annual reports are inaccurate. We request that you provide corrected numbers for each property in 2020 and 2021. Include the date that birds were found, Save Our Shearwaters (SOS) intake identifier, disposition and date, and SOS summary of treatment. Please identify the discovery rate assigned for each property and the calculated unobserved take.

Searcher Efficiency Trials:

Pursuant to KSHCP 6.2.2.1(3), a discovery rate validation program was developed and implemented October 27–December 15, within the 2021 seabird fallout season. The Searcher Efficiency Trials were meant to demonstrate the appropriateness of each Participant's stated Discovery Rate. Discovery Rates are based on two variables; searcher efficiency at finding downed birds, and effective predator control to ensure that birds remain alive to be found.

Table 2. Results of the Searcher Efficiency Trial at HDOT Facilities.

Līhu‘e Airport (unfenced areas only)	Total Number of Decoys Deployed	Total Number of Decoys Reported	Searcher Success Rate (Percent)
Open	11	8	73
Partial Cover	6	1	17
Full Cover	2	0	0
Total	19	9	47

Port Allen Harbor	Total Number of Decoys Deployed	Total Number of Decoys Reported	Searcher Success Rate (Percent)
Open	6	6	100
Partial Cover	7	7	100
Full Cover	1	0	0
Total	14	13	93

Agency Comments or Recommendations:

Līhu‘e airport

In the public or unfenced areas that the searcher efficiency trial evaluated, the search at the Līhu‘e airport was very good at detecting decoys in the open; however, the second search may be occurring slightly too late, as some of the open decoys were detected after a live bird would have moved to seek cover (2 decoys in the open that reported less than 30 min before sunrise). Only three of the eleven decoys reported were reported by the first possible search. Of the eleven decoys reported, the median time from deployment to first report was 9 hours. Additionally, neither of the two decoys in full cover (there are few fully covered places available, except underneath the many parked cars), and only 1 of the 6 decoys in partial cover was reported. Because the behavior of these species is to always seek cover before it gets light, it is unlikely that live birds would still be out in such an open location by the time this decoy was found. Therefore, we recommend evaluating the first searches to ensure the majority of birds are retrieved as quickly as possible rather than left until later search efforts. Given the large area of parking lots to be searched, we also recommend the use of a camera or mirror on a pole to ease searching underneath parked vehicles may be useful if not used already.

Nāwiliwili Harbor

The searcher efficiency trial contracted by DOFAW could not be conducted at Nāwiliwili in 2021 because the facility is fenced, requires security clearances for access, and would require personnel to be escorted; therefore, it was likely that results would be biased. We understand that a searcher efficiency study was previously conducted by H.T. Harvey & Associates in 2017. We recommend that access be arranged for a future study, to allow an unbiased third-party contractor to conduct a similar study to test the efficacy at this location.

Port Allen Harbor

The search effort at Port Allen Harbor resulted in a discovery rate among the highest in the study. This search is conducted by H.T. Harvey & Associates. As noted in the searcher efficiency study that there is likely still some room for improvement as some places where live birds might be found but could not fully be included in this study (i.e. boats moored along the pier overnight, the ubiquitous forklift slots in the concrete barriers, and inside the main building via rust holes beside doors). Birds that land in the parking lot also face considerable risks from some members of the public. We recommend you ensure that rust holes besides doors and any other location that could prevent birds from entering hiding spots be evaluated and remedied prior to the 2022 seabird season. This will help you in being able to find birds in locations more easily searched. It was also noted that a decoy was placed inside a forklift hole. It was not reported by either of the two searches that night, indicating that the many forklift holes might not be searched. We recommend using tools such as a mirror on a pole (e.g. an undercarriage vehicle inspection mirror) to help solve this concern.

We appreciate your continued efforts to ensure the success of the KSHCP. If you have concerns being unable to fully implement the terms and conditions of your ITP/ITL please reach out to us to schedule a meeting to discuss the next steps. Please feel free to contact us should you have any questions regarding our letter.

Sincerely,

AARON NADIG
Digitally signed by AARON NADIG
Date: 2022.07.06 11:10:47 -10'00'

Lainie Berry

Island Team Manager
O‘ahu, Kaua‘i, Northwestern Hawaiian Islands, and American Samoa

Wildlife Program Manager