

KSHCP Participant Annual Report - Base Form

	2022	Participant Name	State of Hawaii, Department of Transportation	For participants with multiple facilities, indicate how the total number of facilities for which Base Forms have been produced. Complete the information required to be Reported on each Base Form.	3
Item #	Relevant Requirement	Facility Name, Type, and Location	State of Hawaii, Department of Transportation Airports Division	Information Reported to be Reported	Facility Contact Information
1	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Facility Name, Type, and Location	State of Hawaii, Department of Transportation Airports Division	Facility Owner	Craig Davis, Kaula Airports District Manager PH: 808-274-1800, Email: craig.davis@hawaii.gov Craig Davis, Kaula Airports District Manager PH: 808-274-1800, Email: craig.davis@hawaii.gov
2	TP Section M (N) (N) Section 1.1	ITP Number	ITP Number	ITL Number	ITL-30
3	GHCP Section 4.2.2 (2)	List permitted incidental take by species for this facility	27/48 Newly Shearwater Hawaiian Petrel	1/2 0	Read current Status Permit Green Sea Turtle
4	2022 Annual Lethal and Non-lethal Take calculated using the methodology described in the GHCP	Nonlethal Take 2/48 Newly Shearwater Hawaiian Petrel	0 0	Read current Status Permit Green Sea Turtle	0 0
5	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Identify any changes to facility management/ownership or other key personnel involved in the GHCP.	Newly appointed Director of Hawaii Department of Transportation, Edward Smith, replaces the previous Director, Jada Baya. Jada Baya remains listed as Principal Officer on the ITP and the ITL was signed by Mr. Baya on the authorized office.	In 2022 the public parking lot was lengthened at both the north and south ends and asphalt resurfaced. This project included the installation of some upgraded parking lot lighting fixtures. The upgrades consist of full cut off LED lighting fixtures which are expected to further reduce light attraction and are consistent with many previous upgrades to the lighting infrastructure at Lihue Airport. All of the work that was conducted on the resurfacing was performed either during the day or at night without the use of any additional or supplemental site lighting requirements.	See Appendix Sheet A, Take Calculations
6	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Describe any requested changes to minimization efforts conducted at the facility and the reasons for the requested change.	None - there are no additional changes to minimization efforts being planned or requested for 2023.		
7	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Provide map or description of search route(s) used for conducting searches.	Systematic searches for downed seabirds were conducted twice each day at Lihue Airport as prescribed in the GHCP and HDOT's Participant Instruction Plan. Trained searchers performed the coverings each consecutive day between September 15 and December 15, within a 3-hour effort and then again within 1-hour effort during the winter, covering all of the searchable areas that are accessible to the public at Lihue Airport. The public areas consist of the terminals, parking areas, portions of the retail and facilities, several roads and access corridors which interconnect the various parts of the airport facility, and the outer sectors of the North Runway along Ahukou Road. The Airport Operations Area (AOA), where active aircraft activities take place, is a restricted area. The AOA is searched twice each day by Lihue Wildlife Services in conjunction with the Lihue Airport Wildlife Management Program (N. T. Harvey and Associates) trained and performed the wildlife management of searchers who conducted 100 searches of the public access areas, once each morning and again in the afternoon. Airport Security and other trained personnel also remained vigilant throughout the season and helped augment monitoring and surveillance capacity. USDA-Wildlife Services performed daily surveys comprising early morning and evening searches of the entire AOA. The coordinated and repetitive on the ground surveillance and dedicated search effort by multiple staff provided an effective monitoring program at Lihue Airport in 2022.		
8	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Describe the frequency and timing of searches conducted at this facility.	Systematic searches for downed seabirds were conducted twice each day at Lihue Airport as prescribed in the GHCP and HDOT's Participant Instruction Plan. Trained searchers performed the coverings each consecutive day between September 15 and December 15, within a 3-hour effort and then again within 1-hour effort during the winter, covering all of the searchable areas that are accessible to the public at Lihue Airport. The public areas consist of the terminals, parking areas, portions of the retail and facilities, several roads and access corridors which interconnect the various parts of the airport facility, and the outer sectors of the North Runway along Ahukou Road. The Airport Operations Area (AOA), where active aircraft activities take place, is a restricted area. The AOA is searched twice each day by Lihue Wildlife Services in conjunction with the Lihue Airport Wildlife Management Program (N. T. Harvey and Associates) trained and performed the wildlife management of searchers who conducted 100 searches of the public access areas, once each morning and again in the afternoon. Airport Security and other trained personnel also remained vigilant throughout the season and helped augment monitoring and surveillance capacity. USDA-Wildlife Services performed daily surveys comprising early morning and evening searches of the entire AOA. The coordinated and repetitive on the ground surveillance and dedicated search effort by multiple staff provided an effective monitoring program at Lihue Airport in 2022.		
9	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Describe the personnel involved in search efforts at this facility.	Systematic searches for downed seabirds were conducted twice each day at Lihue Airport as prescribed in the GHCP and HDOT's Participant Instruction Plan. Trained searchers performed the coverings each consecutive day between September 15 and December 15, within a 3-hour effort and then again within 1-hour effort during the winter, covering all of the searchable areas that are accessible to the public at Lihue Airport. The public areas consist of the terminals, parking areas, portions of the retail and facilities, several roads and access corridors which interconnect the various parts of the airport facility, and the outer sectors of the North Runway along Ahukou Road. The Airport Operations Area (AOA), where active aircraft activities take place, is a restricted area. The AOA is searched twice each day by Lihue Wildlife Services in conjunction with the Lihue Airport Wildlife Management Program (N. T. Harvey and Associates) trained and performed the wildlife management of searchers who conducted 100 searches of the public access areas, once each morning and again in the afternoon. Airport Security and other trained personnel also remained vigilant throughout the season and helped augment monitoring and surveillance capacity. USDA-Wildlife Services performed daily surveys comprising early morning and evening searches of the entire AOA. The coordinated and repetitive on the ground surveillance and dedicated search effort by multiple staff provided an effective monitoring program at Lihue Airport in 2022.		
10	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Complete the Summary Table containing information for all downed seabirds (and home nests) found	Summary Table		
11	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Provide a copy of each Downed Wildlife Report that was prepared and submitted submitted for this facility during the reporting year	Summary Table		
12	GHCP Section 4.1.2a, (TP Section M) (N) (N) Section 1.1	Provide a discussion of the efficacy of the current self-monitoring protocols and adaptive management and whether adjustments need to be made. Describe any proposed adjustments	Link		
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KSHCP 2022 Participant Annual Report - Addendum Sheet 3, Take Calculations, Lihue Airport

Reporting
Year

2022

Participant Name

State of Hawaii, Department of Transportation

Kauai Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30

Use the spaces below to show how the take calculations are used to estimate take in 2022.

Item #

4

Relevant Requirement

ITP Section J/ITL Section II.D

2022 Calculation of Lethal and Non-Lethal Take - Lihue Airport			
Take Estimation Parameter	NESH	HAPE	BRSP
Birds found alive, released from SOS	3	0	0
Birds found dead or euthanized at SOS	1	0.00	0.00
Discovery rate (75%=.75, 50%=.50, etc)	0.75	0.75	0.75
Total annual take (found birds/disc rate)	5.33	0.00	0.00
Lethal take (Observed+Unobserved)	2.69	0.00	0.00
Non-lethal take	2.64	0.00	0.00

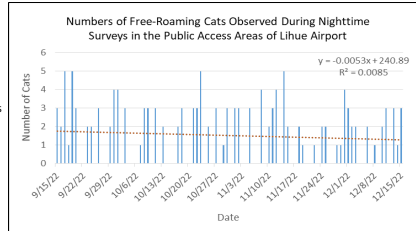
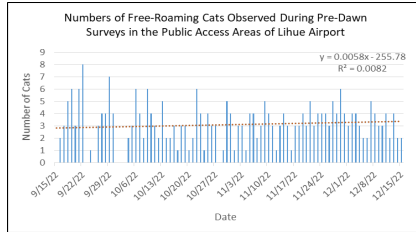
KSHCP 2022 Participant Annual Report – Summary Table Containing Information on Covered Seabirds Rescued and Reported at Lihue Airport

Reporting Year	2022	Participant Name	State of Hawaii, Department of Transportation									
Kauai Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30												
Complete the information below for each downed seabird found at the facility												
Date Found	Time Found	Property or Facility	Describe Exact Location Where Found	GPS Latitude	GPS Longitude	Species (NESH, HAWF, BRSP)	File Name	SOS Reference Number	Disposition of Seabird	Days in SOS Care Prior to Release	Complete these columns for any homo nest found.	
											Homo Nest Found? (Yes or No)	Describe Any Homo Nest Protection Efforts Implemented
19-Oct-2022	12:00	Lihue Airport	Jack Harter Helicopters (ADA)	21° 59'05.2" N	159° 20'29.5" W	NESH	NESH_2022_10-19a_HDOT-LH	BSV304	Released	1	THIS SECTION DOES NOT APPLY TO HDOT	
19-Oct-2022	12:24	Lihue Airport	Grass Area South of Radio Communication Array (ADA)	21° 58'36" N	159° 20'23" W	NESH	NESH_2022_10-19b_HDOT-LH	BSV303	Released	1		
22-Oct-2022	20:00	Lihue Airport	Lihue Airport Maintenance Baseyard (Public)	21° 59'06.6" N	159° 20'37.3" W	NESH	NESH_2022_10-22a_HDOT-LH	DLR038	Euthanized	40		
22-Oct-2022	21:30	Lihue Airport	Adjacent to Alpha Gate (Public)	21° 58.582 N	159° 21.045 W	NESH	NESH_2022_10-22b_HDOT-LH	DLR037	Released	1		

KSHCP 2022 Participant Annual Report - Addendum Sheet 2, Summary of Predator Control

Reporting Year	2022	State of Hawaii, Department of Transportation
		Kaual Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30
Use the spaces below to provide additional information pertaining to predator control efforts at the facility.		

Item #	Relevant Requirement	Additional Information
14	KSHCP Section 6.6.1.2.f, ITP Section M.vi (N.vi), ITL Section II.I.6.	<p>Trapping effort at Lihue Airport during the 2022 seabird fallout season consisted of 8 traps set in the AOA and 2 traps in the public area for a total of 10 traps and 920 trap nights. Traps were specifically placed evenly along the main terminal ramp where operational lighting is most pronounced and at strategic points in the public area to maximize catch probability. A total of 6 cats were captured and removed from Lihue Airport during the 2022 seabird fallout season (5 from the AOA and 1 in the public area), yielding a capture success rate of 0.007 cats/trap night. Data on the occurrence of cats at Lihue Airport are gathered twice daily in the publically accessible portions of the facility. H. T. Harvey & Associates search biologists compiled observations of cats and other potential predators that were detected in the public areas for the entire fallout season. This information used to inform trap placement and effort. A 3-day pre-season assessment of cats in the public access areas of Lihue Airport was done to establish a relative baseline for evaluating the effectiveness of the animal control measures during the 2022 season. We began with an average of 3.5 cats in the night and 2 in the predawn period. During fallout season monitoring we documented between 0-8 (average 3.1) cats on 85 of the surveys (91%) conducted during the predawn period in the public access area. Numbers of cats appear somewhat less during the nighttime period with 0-5 (average 1.52) cats seen on 55 of the surveys (59%). Survey effort was proportionally directed to focus efforts on the AOA, specifically areas known to be associated with fallout at Lihue Airport. Although our observations of cats are limited to the public access areas, cats were taken in the AOA in 2022 at a rate more commensurate with effort (8 traps, 83% of catch). Trapping in the public access portions of Lihue Airport, which is managed by USDA-Wildlife Services, was affected in 2022 due to unanticipated staffing constraints; whereas, normally a sufficient number of USDA-Wildlife Services biologists are able to maintain trapping and removal efforts in the public areas alongside critical WHMP activities. Increasing the number of active traps in the public access areas of the airport should contribute to more substantial reduction in the numbers of cats present in this portion of the facility and will be a priority in 2023. The trends in the two figures help show the diurnal shift in the numbers of cats seen in the public areas.</p>



KSHCP 2022 Annual Report, Addendum Sheet 3, Summary of Training Activities at Lihue Airport

Reporting Year	2022	Participant Name	State of Hawaii, Department of Transportation			
			Kauai Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30			
Date of Training	Training Topic	Property or Facility	Training Group	Number of Attendees	Method of Training Delivery (e.g., video, in-person, educational materials)	Printed Materials or Other Media Provided
9/13/2022	Annual Seabird Awareness, Response, and Reporting	Lihue Airport	HDOT Lihue Airport Operations	7	Microsoft Teams Webinar	Yes. Training Module and Fact Sheet, KSHCP Downed Wildlife Reporting Form
9/15/2022	Annual Seabird Awareness, Response, and Reporting	Lihue Airport	HDOT Lihue Airport Operations	2	Microsoft Teams Webinar	Yes. Training Module and Fact Sheet, KSHCP Downed Wildlife Reporting Form
9/12/2022	Airport Public Area Orientations and Search Procedures including Annual Seabird Awareness and Response Training	Lihue Airport	H. T. Harvey & Associates search and monitoring team	3	In-person	Yes. 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
9/13/2022	Airport Public Area Orientations and Search Procedures including Annual Seabird Awareness and Response Training	Lihue Airport	H. T. Harvey & Associates search and monitoring team	2	In-person	Yes. 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
9/14/2022	Seabird Awareness and Reporting and Search and Recovery	Lihue Airport	Allied Universal Security, watch commander and several security guards	~ 12	In-person	Yes. Training module and Fact Sheet, KSHCP Downed Wildlife Reporting Form
4/20/2022	Annual Wildlife Hazard Management Program review (139 Training) delivered by USDA-Wildlife Services	Lihue Airport	USDA-Wildlife Services, Aircraft Rescue and Firefighting personnel, Airport Operations and Maintenance, Tenant representatives	40	In-person	KSHCP seabird fallout protocols were reviewed including seabird identification, reporting procedures, and reporting forms (including relevant information concerning the role of the Save Our Shearwaters program and points of contact for reporting downed wildlife incidents at Lihue Airport).

Reporting Year	2022	Participant Name	State of Hawaii, Department of Transportation
			Kaui Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30

Seabird Light Attraction at Airports and Harbors

Hawaiian petrel

Nesting Colonies
Molokai, Lanai, Kauai
Fledging Dates
September to November

Newell's shearwater

Nesting Colonies
Kauai, Maui, Hawaii
Fledging Dates
October and November

Wedge-tailed shearwater

Nesting Colonies
Coastal Areas State-wide
Fledging Dates
November and December

Band-rumped storm petrel

Nesting Colonies
Kauai, Hawaii, Maui
Fledging Dates
October and November

Inside nesting burrows since early summer, **fledgling seabirds leave the nest at night** and follow the moonlight to reach the open ocean where they learn to feed. They will not return for 3-4 years.

When the moon is dark, **bright lights at airports and harbors can attract fledgling seabirds** which sometimes collide with structures or become grounded.



Grounded seabirds are vulnerable to predators such as cats and dogs as well as machinery. This light attraction and grounding phenomena is called "**fallout**".

THESE BIRDS ARE PROTECTED BY STATE AND FEDERAL LAW

Facility lighting is required for safety and security and during operations



When the moon is full it exceeds the brightness of facility lighting

**Turn Off Non-Essential Bright Lights
during Seabird Fallout Season
September 15 – December 15**

Procedures for Rescuing Downed Seabirds

- Carefully approach the seabird from behind
- Gently wrap a small dry towel around its back and wings and place it inside a well-ventilated small animal carrier or box.
- Write down **Date, Time, Specific Location** where the seabird was found, and the **Name and Contact Information** of the person who found it.

Reporting Downed Seabirds

Kauai

Lihue Airport – Call Security Dispatch (808-274-3814) and ask for assistance from USDA Wildlife Services.

Nahiiwili Harbor – Call Harbor Security (808-278-0673) and SOS (808-635-5117)

Port Allen Harbor – Call Harbor Security (808-278-0673) and SOS (808-635-5117)

Mauai and Lanai

Kahului Airport – Call Security Dispatch (808-872-3875 and 3876) and ask for assistance from USDA Wildlife Services

Lanai Airport – Call USDA Wildlife Services (808-292-8387) and Maui Nui Seabird Recovery Project (808-573-2473)

Kahului Harbor – Call Harbor Security (808-227-9423) and Maui Nui Seabird Recovery Project (808-573-2473)

Photo Credits: Maui Nui Seabird Recovery Project (A); L. Young (B); A. Raine (C); Hawaii DLNR and USFWS (D,E,F); B. Yuen (G).

KSHCP Participant Annual Report - Addendum Sheet 5, Advancing Biological Objectives at Lihue Airport

Reporting Year	2022	Participant Name	State of Hawaii, Department of Transportation
Kauai Seabird Habitat Conservation Plan U.S. Fish and Wildlife Service ITP No. TE74138D-0 and Hawaii Department of Land and Natural Resources ITL No. ITL-30			
Use the spaces below to provide additional information related to the advancement of Biological Objectives.			

Form #
(Cover
Sheet or
Page #)

Item #

Relevant Requirement

Photos and Additional Information

Description

5

KSHCP 6.6.1.2



New public parking lot lights installed at a few select locations in 2022 are LED full-cut fixtures. More comprehensive upgrades of these particular systems are planned in 2023.

KSHCP 6.6.1.2



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KSHCP 6.6.1.2



Full cut-off LED light fixtures installed in 2020, part of facility-wide Phase 3 upgrades planned for completion during 2020-2025 at Lihue Airport.

KSHCP 6.6.1.2



Full cut-off LED light fixtures installed in 2020, part of facility-wide Phase 3 upgrades planned for completion during 2020-2025 at Lihue Airport.

KSHCP 6.6.1.2



Full cut-off LED light fixtures installed in 2020, mounted on tall masts along the main terminal ramp adjacent to Gate 6 at Lihue Airport.

KSHCP 6.6.1.2



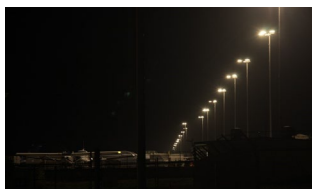
High mast lights used to illuminate the cargo ramp apron at Lihue Airport were upgraded to full cut-off LED fixtures in 2020.

KSHCP 6.6.1.2



High pressure sodium lamps, like those pictured here from the north ramp area, are similar to the type of system in use on the Airside high mast light array prior to Phase 3 lighting upgrades that were installed in 2020. Those upgrades consisted of replacing the high pressure sodium systems with full cut-off LED fixtures on 18 of the 28 high mast lighting systems at Lihue Airport.

KSHCP 6.6.1.2



High mast lights installed in 2020 equipped with LED full cut off heads illuminate the main commercial ramp, cargo ramp, commuter terminal and portions of the general aviation-north ramp at Lihue Airport. See Appendix 3 for additional nighttime photos of lighting at Lihue Airport in 2022.