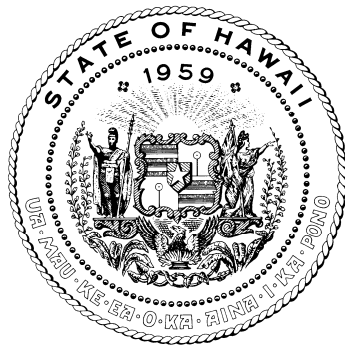


**REPORT TO THE TWENTY-FIFTH LEGISLATURE
REGULAR SESSION OF 2009**

**STATUS OF THE ISSUANCE OF INCIDENTAL TAKE
LICENSES FOR ENDANGERED, THREATENED, PROPOSED,
AND CANDIDATE SPECIES;
AND
THE CONDITION OF
THE ENDANGERED SPECIES TRUST FUND
FOR THE PERIOD JULY 1, 2007 – JUNE 30, 2008**



Prepared by

**THE STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE**

In response to Section 195D-26, Hawaii Revised Statutes

Honolulu, Hawaii
November 2008

**STATUS OF THE ISSUANCE OF
INCIDENTAL TAKE LICENSES FOR ENDANGERED, THREATENED,
PROPOSED, AND CANDIDATE SPECIES;
AND
THE CONDITION
OF THE ENDANGERED SPECIES TRUST FUND
FOR THE PERIOD JULY 1, 2007 – JUNE 30, 2008**

PURPOSE

Act 380, Session Laws of Hawaii (SLH) 1997, amended the State Endangered Species Law, Chapter 195D, Hawaii Revised Statutes (HRS), to provide for the preparation and implementation of habitat conservation plans and safe harbor agreements, and to provide additional incentives for private landowners to recover and protect threatened and endangered species on their lands. Specifically, §195D-26, HRS, requires that an annual report be prepared by the Department of Land and Natural Resources (DLNR) on:

1. The effectiveness of habitat conservation plans or safe harbor agreements issued under Chapter 195D, HRS and the status of all species for which incidental take licenses have been issued;
2. Description of the condition of the Endangered Species Trust Fund established under §195D-31, HRS; and
3. Recommendations to further the purposes of Chapter 195D, HRS.

This report is submitted to fulfill the reporting requirement for Fiscal Year (FY) 2008.

FINDINGS

A. Effectiveness Of Habitat Conservation Plans (HCP) And Safe Harbor Agreements (SHA's) Issued Under Chapter 195D, HRS, and the status of all species for which incidental take licenses (ITL) have been issued:

The following individuals served on the Endangered Species Recovery Committee (ESCR) during FY 2008.

Mr. Laura H. Thielen, Chairperson, Board of Land and Natural Resources (Agency Representative)

Designated Representatives

Mr. Bob Matsuda, Deputy Director for Land, DLNR, Honolulu

Dr. Scott Fretz, Wildlife Program Manager, DLNR - Division of Forestry and Wildlife (DOFAW), Honolulu

Dr. Patrick Leonard, Field Supervisor, United States Fish and Wildlife Service (USFWS), Pacific Islands Ecoregion (Agency Representative)

Designated Representative

Dr. Jeff Newman, USFWS, Pacific Islands Ecoregion, Honolulu.

Dr. Loyal Meyerhoff, Director, United States Geological Survey (USGS), Pacific Islands Ecosystems Research Center (PIERC), Honolulu

Designated Representative

Dr. James Jacobi, USGS-PIERC, Honolulu

Dr. John Harrison, Executive Director, University of Hawaii Environmental Center, University of Hawaii, Manoa, HI. (University Representative)

Dr. Patrick Hart, Assistant Professor, University of Hawaii, Hilo, HI (Appointed Member, Term expired June 30, 2009).

Dr. Cliff Morden, Assistant Professor, University of Hawaii, Honolulu (Appointed Member, Term expires June 30, 2010)

ESCR met three times during the reporting period, reviewed annual reports for the ITLs issued to date, and made one site visit to the Lānaʻihale and Lānaʻi Meteorological Towers sites, Island of Lānaʻi. ESCR made a recommendation to the Board of Land and Natural Resources for public release of the draft Lānaʻi Meteorological Towers Habitat Conservation Plan.

The sunset date on the issuance and approval of new SHAs, HCPs, and ITLs was extended to July 1, 2012 as a result of Act 90, SLH 2006, amending Act 380, SLH 1997. ITLs have been issued to accompany the following HCPs and SHA's as of June 30, 2008.

A. Reintroduction of Nēnē to Puʻu o Hoku Ranch, Molokai. Issued: September 4, 2001.

The Puʻu o Hoku Ranch was the first SHA issued in Hawaii. The SHA calls for Puʻu o Hoku Ranch to allow the reintroduction of nēnē on the Ranch, construct a release pen, provide habitat for nēnē grazing and breeding, and to control predators in the release pen and breeding areas. The Molokaʻi nēnē population has increased from zero (0) to one hundred and fifty-two (152) birds in seven years, with 52% of those birds being wild born on Molokaʻi as a direct result of the Puʻu o Hoku Ranch SHA activities.

During FY 2008, monitoring movements, nesting activities and banding were continued on Puʻu o Hoku Ranch. Twenty-eight (28) nests were located in the Ranch's open-top release pen, a 33% increase over the previous year. There were no nests located outside the pen on the Ranch or around adjacent lands. Thirty-six (36) goslings were reared and fledged into the wild this year, a 64% increase from the previous year. There were no additional releases made from Maui Bird Conservation Center.

One hundred and twenty (120) nēnē were identified by their coded bands with the assistance of Ranch personnel. Thirty-three (33) birds were recognized as released birds



Nēnē pair at Pu‘u o Hoku Ranch, Island of Moloka‘i

and eighty-seven (87) were Molokai birds. In addition to the 120 nēnē, thirty-six (36) fledglings were captured and fitted with State and Federal bands.

Due to an extreme dry season on the Ranch, a total of one acre was mowed on a monthly basis. Eight additional acres was also mowed outside the release pen by ranch personnel to create additional flocking areas. The Ranch also continues to maintain nēnē habitat by cattle and horse grazing in the surrounding areas of the release site. Approximately 2 ½ acres of lantana was also removed from the open-top release. Due to the limited supply of native plants from local nurseries, there was no out-planting in the pen.

In mid June, a two-day annual survey was conducted with the assistance of volunteers, National Park Service and state personnel. During this period a total of eighty (80) birds were identified by their darvic bands and fourteen (14) were unknowns. Data obtain from this survey and yearly sightings generated a population of one hundred fifty-two (152) birds. There were three deaths recorded this season; one was a release bird and two were Molokai birds. Two were determined to be caused by a large predator and one was unknown. None of the deaths were attributed to the Ranch, or assessed to the incidental take authorized by the permit.

This past season forty (40) mongoose were removed from around the open-top release pen area using traps. One feral dog was also removed from the area by ranch personnel. No additional traps were placed and monitored by ranch personnel due to cut back of staff.

ESRC and the Ranch are currently working on an extension of the SHA to continue predator control and adaptive management for the nēnē. Additional information on this project is available in “Puu o Hoku Ranch/Piiholo Ranch Safe Harbor Agreement Annual Reports, July 1, 2007-June 30, 2008” (Medeiros 2008).

Summary

The Pu‘u o Hoku SHA has been a tremendous success. The Moloka‘i nēnē population has increased from 0 to 152 birds in seven years, with 52% of those birds being wild born on Moloka‘i as a direct result of the Pu‘u o Hoku Ranch SHA activities. ESRC and the Ranch are currently working on an extension of the SHA to continue predator control and adaptive management for the nēnē.

Pu'u o Hoku								
Year	# released	# mortalities	# nests found	# fledged	# nests predated	# predators killed*	Est. pop size	# Incidental Take
2002	14	0	0	0	0	61	14	0
2003	41	1	4	2	no data	59	55	0
2004	8	1	6	10	no data	179	>54	0
2005	11	2	12	21	no data	17	>47	0
2006	0	5	12	9	2	83	>56	0
2007	0	0	21	22	10	16	146	0
2008	0	3	28	36	1	40	152	0
Total	74	12	83	100	13	455	152	0

* Includes mongoose, cats, dogs

B. HCP for Hawaiian Stilt at Cyanotech Aquaculture Facility Keahole Point, Island of Hawaii.
Approved: June 13, 2002.

The Plan covers ongoing operations and maintenance activities at Cyanotech’s Aquaculture Facility within the Natural Energy Laboratory of Hawaii (NELHA) along the Kona Coast of the Big Island, and provides mitigation for the accidental loss of juvenile ae‘o (Hawaiian stilts) in the Facility’s production ponds. The following mitigation measures have been implemented: 1) Cyanotech created and maintained a 1.7-acre pond to produce optimum ae‘o breeding habitat – 48 ae‘o chicks were fledged before the pond was drained and netted, to prevent further nesting at the facility because of safety concerns at the adjacent Kona Airport; 2) Predator control was conducted to reduce mortality of stilts present at the facility, and later at off-site ae‘o and alae ke‘oke‘o (Hawaiian coot) locations; and 3) Deterrent measures were implemented to discourage stilts from occupying the facility.

Cyanotech was previously the site of a 0.69 hectare nesting habitat that had been maintained at the facility as part of Cyanotech’s conservation plan for ae‘o. The nesting habitat was managed from 1998-2002. As part of the conservation plan, habitat management was discontinued after the 2002-nesting season, due to potential conflicts with airport safety. The 45 fledglings produced in the area (48 total minus three cases of incidental take) were

sufficient to mitigate anticipated take on the two remaining years on Cyanotech's ITL. Predator control at the facility was utilized on an as needed basis with Havahart live traps. Predator control has since been used at off-site locations, including use of tamper-proof bait boxes, baited with diphacinone rodenticide at Kealakehe Wastewater Treatment Plant, 'Opae'ula Pond, and Kukio fishponds. Conservation work under this conservation plan has also included waterbird surveys at four wetland sites (Aimakapa Pond, Kaloko Pond, 'Opae'ula Pond, and Kukio fishponds), one coastal reef site (Honokohau reef) and one artificial habitat (Kealakehe Wastewater Treatment Plant).

The nesting habitat and Ducks Unlimited raceway continued to be maintained in a manner unusable to the stilts. Cleaning the *Spirulina* production raceways reduces the invertebrate food source. Pursuant to airport safety objectives, there were no nests at the Cyanotech facility or in the lava field of Keahole International Airport. A stilt nest did appear to occur at a facility adjacent to Cyanotech. One stilt hatchling was observed at Coast Seafood's facility on July 26th. The adult pair later walked the hatchling to a series of evaporation ponds at Cyanotech. The hatchling fledged from these ponds on August 22nd. The total amount of Hawaiian Stilt incidental take at Cyanotech was zero.

Stilt counts are conducted weekly throughout the year. Past hazing efforts have been successful in reducing the numbers of stilts frequenting the facility and also resulted in no nesting at the facility. The stilts have become conditioned to the point that merely driving in their vicinity is enough to have them leave the facility with minimal if any use of either the laser or the pyrotechnics. It is known that stilts do still frequent the facility at night, the numbers are fewer than ten and a few nights of late night hazing is enough to deter them from returning for several months.

There were no stilts observed on any of the weekly surveys until July 31st after an adult pair and hatchling had been observed at an adjacent facility. The pair then walked the hatchling to a series of evaporation ponds utilized by the *Spirulina* process facility. The hatchling fledged from these ponds on August 22nd.

As per the Conservation Plan, surveying for incidental take was conducted twice per week during the nesting season and once per week during non-nesting season. However, monitoring for injured or dead stilts was conducted daily as part of normal operations of the production raceways. Surveying the raceways for debris was conducted daily in an effort to protect the mechanical and harvest systems of the production raceways. Surveying the raceways visually is conducted first thing in the morning, before the paddlewheels were turned on. The total amount of incidental take at Cyanotech for 2008 was zero.

Project objectives continue to be met under this HCP, including provision of nesting habitat off-site, as well as in discouraging on-site nesting because of safety issues with the adjacent airport. Project personnel provide diligent monitoring of the site, as well as providing knowledgeable recommendations for appropriate conservation efforts in the area. Additional information on this project is available in "Cyanotech Corporation Conservation Plan for Hawaiian Stilt (*Himantopus mexicanus knudseni*) Annual Report for 2008" (Waddington 2008).

Summary

The Cyanotech HCP has been very successful, both in terms of fledgling production, as well as adaptive management. Original management goals were for on-site stilt enhancement, which produced a net gain of 45 stilts. Safety issues with the airport led to a change in management goals to avoid stilt use of the Cyanotech facility, and instead enhance other areas through predator control. This has resulted in the net production of 68 ae'ō fledglings and 11 'alae ke'oke'ō as a result of this project.

Cyanotech							
Year	Cyanotech ae'o fledged	Cyanotech ae'o pop size	# Incidental Take	Off-site ae'o fledged	Off-site est. ae'o pop size	Off-site 'alae fledged	Off-site est 'alae pop size
2003	48	132	3	9	215	1	122
2004	0	38	6	3	162	8	90
2005	0	0	0	5	111	2	117
2006	0	11	1	9	133	3	93
2007	0	0	0	6	150	8	109
2008	1	3	0	8	136	14	104
Total	49	184	10	40	907	14	635

Off-site population estimates reported in November each year.

C. SHA and Habitat Management Plan for Koloa (Hawaiian Duck) and Nene (Hawaiian Goose) on Umikoa Ranch, Island of Hawaii. Issued: December 5, 2001.

The Umikoa SHA calls for the creation and management of 2.0 acres of wetland ponds and 150 acres of riparian and associated uplands, fencing ponds, predator and weed control, and out-planting of food items to benefit koloa maoli (Hawaiian duck) and nēnē. As per the SHA, eight permanent and two seasonal ponds ranging from 0.05 to 0.57 acres (totaling 2.01 acres) and 151.3 acres of ponds and uplands have been fenced, and are being managed for koloa and nēnē.

During FY 2008, the Umikoa Ranch continued its predator control program using diphacinone mongoose bait in pond areas. USFWS has not submitted an annual report for the project due to problems coordinating with the Ranch following a changeover in Ranch personnel. USFWS and DOFAW met with Umikoa Ranch representatives on October 21, 2008, in order to discuss how to best proceed with this SHA. The current koloa population is estimated to be six birds, which is three times the baseline number at the beginning of the SHA. There were no birds taken on the ITL.

D. Programmatic SHA for the Nēnē on the Island of Moloka‘i. Issued: April 7, 2003.

This is the first "programmatic" SHA issued in the State. DOFAW is the licensee. Landowners may voluntarily enroll by signing a cooperative agreement with DOFAW, which commits them to make appropriate habitat on their land available to nēnē for a period of 10 years, and in return, the landowner receives assurances from both state and federal agencies that they will not be held responsible if nēnē should be harmed or killed on their property incidentally as a result of otherwise legal activities, for the duration of the ITL, which expires in 2053.

During FY 2008, there were no landowners enrolled under this SHA prior to the end of FY 2007. DOFAW has conducted the necessary baseline surveys on lands adjacent to Pu‘u o Hoku Ranch SHA lands where nēnē reestablishment is occurring. DOFAW, in cooperation with USFWS is currently working with an adjacent landowner on potential enrollment of these lands under the Moloka‘i SHA.

E. HCP for *Abutilon menziesii* at Kapolei, Island of O‘ahu. Approved April 8, 2004.

This HCP was developed to cover the impacts and measures that will be taken to mitigate the impacts to the endangered plant species, *Abutilon menziesii*, that are present on a 1,381-acres of state and city-owned property, which is the site of the proposed construction of the North-South Road Highway, Kapolei Parkway and subsequent developments. The Department of Transportation (DOT) is the HCP and license holder. The implementation of the HCP mitigates for the impact of development actions that may be conducted by DOT and other agencies/organizations in the area. To date, Certificates of Inclusion, which authorize incidental take to third parties, have been issued to the Department of Hawaiian Home Lands, the University of Hawaii, and the City and County of Honolulu.

The HCP outlines a strategy to take cuttings and collect seeds from the existing plants at Kapolei prior to their removal and using these materials to: 1) Maintain genetic representation of the original population by growing cuttings in nurseries and placing seeds in seed storage facilities; and 2) Establish three new populations in protected areas elsewhere on Oahu, including Koko Crater Botanical Garden, Kaena Point State Park, and the Honouliuli Unit of the Pearl Harbor National Wildlife Refuge. Work also includes construction of a low-elevation greenhouse dedicated to propagating *Abutilon menziesii* and other threatened, endangered and associated plant species on O‘ahu. In addition, the HCP provides funding to protect and maintain the wild populations for a minimum period of 20 years to ensure that they will survive. Cuttings from plants continue to be propagated in the greenhouse and to date, *Abutilon menziesii* has been outplanted at Diamond Head State Park, Honouliuli Wildlife Refuge, Kealia Trail, Kaena Point, Ka Iwi State Park, Ewa Villages Golf Course, Pouhala Marsh, and Koko Crater Botanical Garden. Five of these sites will be used towards the goal of establishing three self-reproducing wild populations (Ewa Villages Golf Course, Diamond Head State Park, Honouliuli Wildlife Refuge, Ka Iwi State Park, and Kaena Point). The Koko Crater Botanical



Abutilon menziesii at Kapolei, Island of O‘ahu

Garden population will function as a protected repository for the full genetic stock of the Kapolei population. The Kealia Trail site was an experimental site to test the biological requirements of the plant.

During FY 2008, the focus was maintaining the established out-planting sites. There are now approximately 50 individual plants of the original population contained within the Contingency Reserve Area. The three outplanting sites outlined within the HCP are at Diamond Head State Park, Honouliuli Wildlife Refuge, and another site to be determined from several test sites including Ewa Golf Course Rough, Pouhala Marsh, and Ka Iwi State Park. The established populations are being adequately maintained, and provide a genetic and stock available for future mitigation and conservation efforts. Reassessment of the HCP activities and adaptive management strategy is scheduled for discussion at the ESRC October 2008 meeting.

Abutilon							
Year	# plants Kaena Point	# plants Honouliuli Reserve	# plants Koko Crater	Kapolei pop	Net pop	% Genetic Rep of Kapolei pop	# Incidental Take
2001- 2002	142	61	140	106	335	44%	0
2004- 2005	32	78	56	25	191	90%	90
Total	32	78	56	25	191	90%	90

F. SHA for the Introduction of the Nēnē to Pi‘iholo Ranch, Island of Maui – Issued: September 21, 2004.

Under this SHA, Pi‘iholo Ranch is maintaining or improving approximately 600 acres of nēnē habitat for a period of 10 years by continuing cattle ranching operations, thereby maintaining open, short-grass habitat; in cooperation with DOFAW, a nēnē release pen was constructed and Pi‘iholo Ranch has agreed to control predators around breeding and release sites and outplant native plant species known to be nēnē food sources.

During FY 2008, movement and nesting activities continued throughout the year by ranch and state personnel. This past season only one nest was located in the open-top release pen that produced four fledglings for the year. No additional nests were located outside of the open-top release pen on Pi‘iholo Ranch or in the adjacent lands. Two releases were executed this past season which generated ten (10) additional fledgling on the Ranch, and were provided by the Maui Bird Conservation Center. With this past release, a total of forty-eight (48) birds have been released since the start of the project. There were no known deaths recorded this past year.

On Pi‘iholo Ranch’s open-top release pen a total of 1.8 acres was mowed on a monthly basis in addition, 50 acres was mowed in the surrounding areas of the Ranch to create additional nene habitat. Planting continued this past season with Ranch personnel and volunteers, a total of 100 ‘ulei, 100 a‘ali‘i and 25 poha were planted in and around the open-top release pen.

Nene monitoring and observations were performed on a weekly basis by Ranch and state personnel throughout the year. During this period a total of thirty (30) released birds and one adult unbanded bird were sighted. A two day annual survey was also accomplished during the month of May with the assistance of Ranch, state and National Park Service personnel. Only eleven (11) birds were identified by their darvic bands during this period. Tabulations from weekly observations, monthly and annual surveys produced a population estimate of forty-nine (49) birds.

Of the two additional releases were done this past season on Pi‘iholo Ranch, the first was on February 4, 2008 with nine fledglings released, consisting of three males and six females. In this group a male was fitted with a radio transmitter to monitor future movements and possible nesting activities. The second release was one fledgling female on February 29, 2008. All released birds were obtained at the Maui Bird Conservation Center at Olinda.

This past season a total of thirty-three (33) mongoose and three (3) cats were removed from around the open-top release pen area. One hunting dog was sighted in the area a few times but was not removed.



Fledglings released at Pi‘iholo Ranch

Summary

This project is progressing well, providing an excellent release and nesting site for Maui nēnē. The nēnē population has gone from zero (0) to forty nine (49) birds over three years, due largely to releases. The introduced nēnē are maturing, and beginning to nest in the predator-controlled pen, producing the first fledglings at the Ranch this year. DLNR expects the population to continue to grow as the birds become more mature. Native plants planted and managed at the pen provide appropriate nesting sites, as well as encouraging these plants on the Ranch. The Pi‘iholo Ranch SHA success has provided a positive example for other landowners on the Island, and DOFAW is currently working on the development of an additional SHA on Maui for nēnē recovery.

Pi‘iholo								
Year	# released	# mortalities	# nests found	# fledged	# nests predated	# predators killed*	Est. pop size	# Incidental Take
2005	5	0	no data	no data	no data	no data	no data	0
2006	8	0	0	0	0	35	no data	0
2007	25	2	3	0	0	26	26	0
2008	10	0	1	4	0	36	49	0
Total	48	2	4	4	0	97	49	0

* Includes mongoose, cats, dogs

G. SHA for Chevron Hawaii Refinery, James Campbell Industrial Park, Island of Oahu. Issued: November 7, 2005.

This SHA is for the management of nesting and foraging habitat for endangered Ae‘o (Hawaiian Stilt) and ‘Alae ke‘o ke‘o (Hawaiian Coot) at the Chevron Refinery Hawaii at the James Campbell Industrial Park on Oahu. The SHA has a term of six years and during that period, Chevron is required to maintain six acres of ae‘o nesting habitat and five acres of habitat for ae‘o and ‘alae ke‘oke‘o foraging. Chevron is in compliance when managing the water level and vegetation in a basin known as Rowland's Pond to maximize nesting habitat and conduct predator control around Rowland's Pond and several other ponded areas within the Refinery to provide additional foraging habitat. Chevron has committed to monitor the ae‘o and ‘alae ke‘oke‘o occurring on their property and implement adaptive management strategies, should current management activities appear ineffective. In addition, Chevron conducts an education program for its employees and contractors about the ae‘o and ‘alae ke‘oke‘o at the Refinery.

During the 2008 breeding season, no take incidents of juvenile or adult stilts were recorded. Chevron continues to manage water level at the ponds per the SHA for ae‘o and ‘alae ke‘oke‘o. After problems with non-compliance in predator control on site in 2006, Chevron has been diligent in their predator trapping and other SHA-related management activities. DOFAW has recently met with USFWS and Chevron on updating the SHA, and working toward off-site mitigation at Pouhala Marsh, under a future HCP for the project. The Endangered Species Recovery Committee has scheduled review and discussion of the SHA for its October 2008 meeting.



Ae‘o at Chevron facilities, Island of O‘ahu



‘Alae ke‘oke‘o and keiki at Chevron facilities, Island of O‘ahu

Summary

Following correction of some issues during the 2006 season, Chevron has been diligently approaching management of protected species onsite, with particular success with the Hawaiian stilt. In a recent meeting with USFWS and DOFAW, Chevron has discussed updating the SHA through adaptive management efforts, as well as initiating discussion on off-site mitigation at Pouhala Marsh in the future.

Chevron Ae‘o					
Year	# nests found	# fledged	# predators killed*	Est. pop size	# Incidental Take
2006	25	8	267	73	5
2007	16	12	247	100	6
2008	report due in November 2008				
Total	41	20	514	100	11

* Includes mongoose, cats, and rats

H. HCP for Kaheawa Pastures Wind Energy Generation Facility, Island of Maui. Issued: January 30, 2006.

This HCP was developed to mitigate for impacts that construction and operation of the wind farm facility may have to four listed species: Hawaiian Petrel, Newell's Shearwater,

Hawaiian Goose and Hawaiian Bat. These species are known to be in the vicinity and could be injured or killed if they collide with one of the 20 wind turbines constructed on the site.

During FY 2008, Kaheawa Wind Power (KWP) continued ground searches near the turbines to detect any downed wildlife in accordance with the specifications of the HCP. There were three downed wildlife incidents that involved fatality of HCP-covered avian species at KWP during the Year 2 reporting period. A single adult 'ua'u carcass and the partial remains of two full grown nēnē were documented. Each of these incidents were treated as authorized takes under the Incidental Take Permit (ITP) and ITL issued to KWP by the USFWS and DLNR, respectively. Unlike past seasons, no 'ōpe'ape'a were observed during nocturnal surveys for seabirds in West Maui, however observations will continue during all nocturnal and crepuscular field studies. Ongoing SEEF and Carcass Removal trials provide a basis for estimating Adjusted Take for both Hawaiian Petrels and Newell's Shearwaters (although they are most comparable in size, color, and morphology to the Hawaiian Petrel). Applying the results of monitoring and accounting for indirect take and loss of productivity, First Wind estimated adjusted take for Hawaiian Petrels and nēnē are 3.31 and 6.34, respectively.

The Wildlife Education and Observation Program (WEOP) continues to be a valuable extension of the conservation initiatives being pursued under the HCP. DLNR obtained about 254 independent records in the WEOP logbook significantly improving our ability to track and monitor the movements of nēnē on site. WEOP also provides the training necessary to facilitate downed wildlife documentation, clearly demonstrating the success of this program.

In spring of 2007, KWP biologists identified the first known Hawaiian Petrel nesting colony to be documented in West Maui near Makamakaole. Numerous visits and subsequent observations at the colony during the 2008 breeding season reveal consistent Hawaiian Petrel attendance patterns which support the conclusion that DLNR has successfully located a substantially-sized breeding colony of Hawaiian Petrels. Hawaiian Petrel and Newell's Shearwater mitigation initiatives at the Makamakaole colony include live trapping and removal of cats and mongoose, installing bird avoidance markers on the new ungulate fence immediately adjacent to the colony to reduce petrel collision risk, and exploring other practicable management options. DOFAW is currently evaluating the success of these measures.

DOFAW continues to monitor and maintain the nēnē pen established on lands adjacent to the existing turbines; although nēnē are no longer being released, they do use the pen during nesting season, so that predator control of that area is important for their continued success.



Nēnē flock flying past turbines at Kaheawa Pastures, Island of Maui. Without mitigation provided for under the HCP, loss occurring as a result of the turbine operations would contribute to decline of this endemic Hawaiian species. Cooperative efforts with the applicant, DOFAW and USFWS can provide net benefit to the species.

A native plant reestablishment effort resulted in 7,500 young a‘ali‘i (*Dodonea viscosa*) propagated from seed collected at Kaheawa being successfully planted along cut and fill slopes and other open earth portions of the roadsides and turbine pads. KWP is planning an intensive out-planting in the fall and winter of 2008/2009 consisting of up to 25,000 native plants of about five species, again grown from seeds collected at Kaheawa. This effort also includes establishing pili grass (*Heteropogon contortus*) in selected areas as a ground cover to facilitate soil stabilization.

Implementation of the provisions under this HCP has resulted in reduced take of endemic Hawaiian species. Cooperative efforts with the applicant, DOFAW and USFWS should provide net benefit to the species, when mitigation efforts are implemented to offset authorized incidental take. A more detailed report of the project is available in the “Kaheawa Pastures Wind Energy Generation Facility Habitat Conservation Plan Year 2 HCP Implementation: July, 2007 – June, 2008” (First Wind Environmental Affairs 2008).

Summary

The nēnē release pen at Kaheawa appears to be supporting a combination of wild and released nēnē which utilize the pen for rearing fledglings. The off-site mitigation activities have proceeded more slowly, but have included identification, fencing and flagging of a previously unknown ‘ua‘u colony. Additional mitigation activities in development include

an additional release pen for nēnē off-site, and predator control at the petrel colony. This project has resulted in net gain for nēnē, and will result in net gain for ‘ua‘u.

Kaheawa							
Year	W Maui # nēnē released	W Maui # nēnē nests	W Maui # nēnē fledglings	# ‘ua‘u colonies monitored	# nēnē Incidental Take	# ‘ua‘u Incidental Take	# ‘ōpe‘ape‘a Incidental Take
2007	10	19	23	1	0	0	0
2008	0	17	24	1	5	3	0
Total	10	36	47	1	5	3	0

2. Description of the condition of the Endangered Species Trust Fund established under §195D-31, HRS:

The sources of revenue for the Endangered Species Trust Fund (ESTF) are deposits for implementation of SHAs, donations earmarked for endangered species projects, and proceeds from the sale of environmentally-themed products such as endangered species stamps, posters, books, etc., sold to the public to raise money for conservation of Hawaii’s resources. Act 144, SLH 2004, amended the provisions establishing ESTF by changing its status from a special fund to a trust fund, and allowing deposits of money provided as security, or to implement the obligations of a HCP. Trust funds are not currently assessed Central Services Fees and Administrative Costs. This change in the statute is expected to encourage donations and use of ESTF by contributors and donors that have expectations that monies deposited into a trust fund, will be protected and available in the future to use for the intended purpose, such as actions required to implement HCPs or SHAs.

Revenues into ESTF in FY 2008 were derived from interest income (\$65,940), sales of conservation license plates (\$1,320), fines for land violations (\$7,304), deposits in compliance with HCPs (\$243,138), a Kipuka 21 HTA Award (\$22,500) and miscellaneous (\$130). The revenues derived from interest will be allotted to the various projects from which they were earned. Revenues are summarized in the table below.

Expenditures made from ESTF during FY 2007 included support of the HCP for *Abutilon menziesii* (\$65,525), Maui Fire Suppression (\$734), Tesoro Oil Spill Restoration (\$29,551), the Hawaiian Hoary Bat Recovery Project (\$4,843), education and outreach (\$5,401), and plant extinction prevention program (\$1,754). Expenditures are summarized in the table below.

Status Of The ESTF (T-919, S-97-800, and S-324 accounts)	
Beginning Balance of Fund on July 1, 2007	\$1,358,337
Revenues during FY 2008	\$340,332
Expenditures during FY 2008:	\$106,782
Cash Balance as of June 30, 2008	\$1,591,887
Unpaid encumbrances as of June 30, 2008:	\$200,328
Unencumbered Cash for carryover as of June 30, 2008:	\$1,391,559

Summary of Revenues FY 2008	
Investment Pool	\$65,940
Conservation License Plate	\$1,320
Fines for Land Violations	\$7,304
Lanai Met Towers HCP Deposit	\$143,138
Kaheawa Wind HCP Deposit	\$100,000
Kipuka 21 HTA Award	\$22,500
Miscellaneous	\$130
Total Revenue for FY 2008	\$340,332

Summary of Expenditures FY 2008	
Abutilon HCP Mitigation	\$65,525
Maui Fire Supression	\$734
Tesoro Oil Spill Restoration - Oahu Offshore Islands	\$29,551
Hawaiian Hoary Bat Recovery Project	\$4,843
Outreach for Seabird Conservation	\$3,300
Education and Outreach Materials	\$2,101
Plant Extinction Prevention Program	\$1,754
Total Expenditures	\$107,808

Summary of Pending Encumbrances Claims FY 2008	
Tesoro Oil Spill Restoration - Oahu Offshore Islands	\$13,266
Hawaiian Hoary Bat Recovery Project	\$13,842
Lanai Met Towers HCP Mitigation	\$143,138
Abutilon HCP Mitigation	\$30,082
Total Encumbrances Claims	\$200,328

3. Recommendations to further the purposes of Chapter 195D, HRS.

- A. DLNR recommends that state and local agencies be encouraged and provided information to comply with Chapter 195D, HRS. State and local agencies are the primary developers of many projects that may involve authorized take of endangered and threatened species. Assistance and education may include providing information about the requirements under Chapter 195D, HRS, as well as how to meet these requirements. DOFAW staff is happy assist other state and local agencies in meeting these requirements.
- B. DLNR recommends establishment of an HCP/SHA Coordinator and assistant positions to review and develop HCPs and SHAs, in collaborative efforts with USFWS and the applicants. The positions could be funded through a variety of funding sources including federal funds, general funds or via permit fees for assistance in developing, processing, and monitoring projects. The current Conservation Initiatives Coordinator is a temporary, federally funded contract services position that has been able to meet staffing needs for the initial development stage of the program. Current work includes compliance and oversight of three existing HCPs, 17 developing or planned HCPs, five existing SHAs, and eight developing or planned SHAs. These positions benefit applicants and the public by ensuring conservation of Hawaii's endemic species by providing more efficient processing of HCPs, ITLs, and SHAs, integration into other planning processes, and better cooperation with landowners, and related conservation activities.

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