

RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024

**REPORT TO THE THIRTY-THIRD STATE
LEGISLATURE OF HAWAI'I
2025 REGULAR SESSION**

**RELATING TO THE WILDLIFE
REVOLVING FUND FISCAL YEAR 2024**



Prepared by

STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES

In response to Section 183D-10.5, Hawai'i Revised Statutes

December 2024

**RELATING TO THE WILDLIFE REVOLVING
FUND FISCAL YEAR 2024**

PURPOSE

The Wildlife Revolving Fund (WRF) aims to provide funds to manage and enhance public hunting opportunities in Hawai‘i. Act 290, Session Laws of Hawai‘i 1991, amended Section 183D-10.5, Hawai‘i Revised Statutes (HRS), by adding a requirement for an annual report to be prepared by the Department of Land and Natural Resources (Department) on the status of the WRF and transmitted to the Legislature no later than twenty days before the convening of each regular session. Reporting requirements include:

1. The source and application of monies deposited into the fund, including a description of the criteria and process used to determine funding priorities
2. A description of programs and activities supported by the fund
3. A summary of program highlights and accomplishments; and
4. A description of future program plans, including specific goals and objectives.

FUNDS

Section 183D-10.5(b), HRS, provides that the following proceeds shall be retained by or transmitted to the Department for deposit into the WRF:

1. Money collected as fees for hunting licenses, attendance of hunter education training programs, and use of public target ranges.
2. Money collected under the provision of any law relating to the importation, taking, catching, or killing of game, wildlife, and products thereof.
3. Money, other than informers' fees authorized under Section 183D-11, HRS, collected as fines or bail forfeitures for violation of Chapter 183D, HRS, or any provision of Chapter 195D, HRS, concerning wildlife conservation; and
4. Money collected from the sale of:
 - A. Any article, in addition to a hunting license, which a person is required to purchase from the Department to hunt when the requirement is established by law or rule; and
 - B. Any work of art upon which the article under A is based.

For Fiscal Year (FY) 2024, the major source of revenue was the sale of hunting licenses, followed by the sale of game tags. Revenues did not exceed the Department’s authorized budget ceiling for the WRF of \$1,006,411. New expenditures totaled \$838,925.34. The unencumbered cash balance at the end of FY 2024 amounted to \$594,864.54, with outstanding encumbrances of \$121,180.

Status of S-343

Beginning cash balance of fund on July 1, 2024.	\$752,163.52
Revenues during FY 2024	\$802,806.53
Expenditures during FY 2024	(\$838,925.34)
Unencumbered ending cash as of June 30, 2024	\$716,206.34
Encumbrances as of June 30, 2024	(\$121,180.17)
Expired encumbrances from prior years	\$73,233.25
Unencumbered cash for carryover as of June 30, 2024.	\$594,864.54

Summary of Revenues FY 2024

Hunting guide license	\$2,675.00
Game bird farmer licenses	\$2,050.00
Hunting licenses with wildlife conservation stamp	\$467,102.50
Wildlife Conservation stamps	\$4,917.50
Game bird stamps	\$56,170.00
Game tags	\$233,283.33
Interest and Refund /reimbursement of prior period expenditures	\$2,916.55
Investment Pool Account	\$33,691.35

Total Revenue for FY 2024 **\$802,806.53**

Summary of Expenditures FY 2024

Personnel	\$223,228.10
Operations	\$540,978.24
Admin costs	\$33,111.15
Total Expenditures	\$807,317.49

Summary of Outstanding Claims FY 2024

Operations Claims	\$159,210.45
Amount expended	\$38,030.28
Total remaining balance of outstanding claims and contracts	\$121,180.17

HUNTING LICENSE SALES OVERVIEW

Overall, Hawai'i hunting license sales and non-resident license sales have shown an increasing trend since a low was recorded in 2005 and 2007 (Figures 1 and 2). Revenue from license sales is deposited into the WRF and used to benefit wildlife management and hunting programs. In FY 2024, a total of 15,152 hunting licenses were sold, which is an increase from the previous year. Hunting sold during this year superseded the sales of game tags.

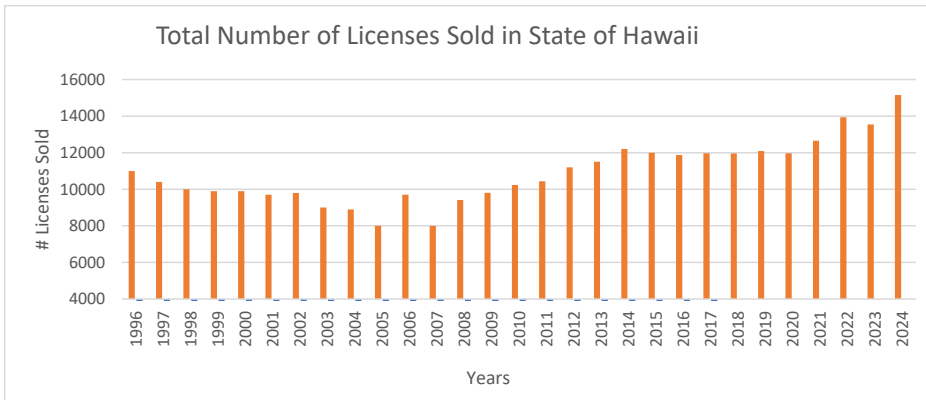


Figure 1. The total number of hunting licenses sold in the State of Hawai'i per fiscal year (1996 – 2024).

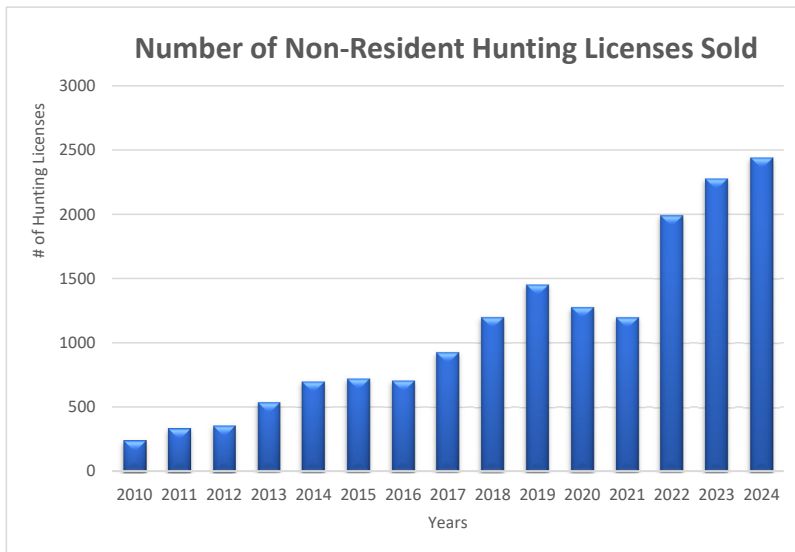


Figure 2. The total number of non-resident hunting licenses sold per fiscal year (2010 – 2024).

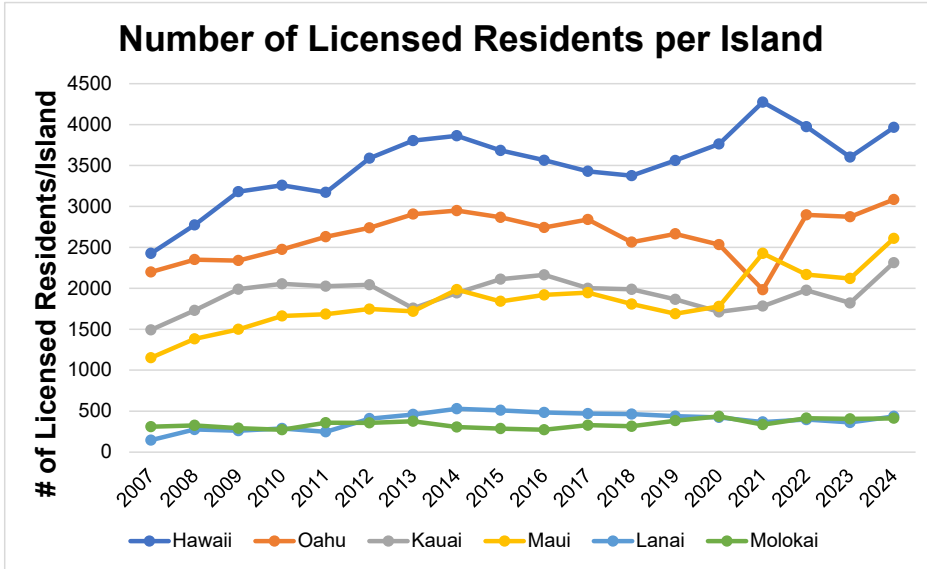


Figure 3. The total number of residents with a hunting license per island for fiscal years 2007– 2024.

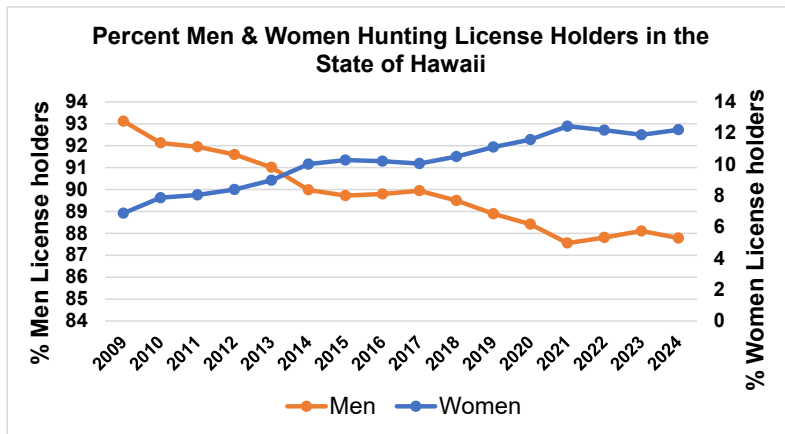


Figure 4. Percent men and women license holders in the State of Hawai'i for fiscal year 2009 – 2024.

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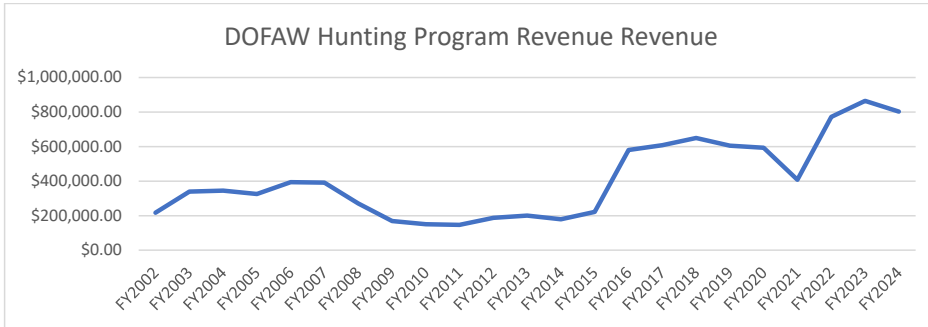
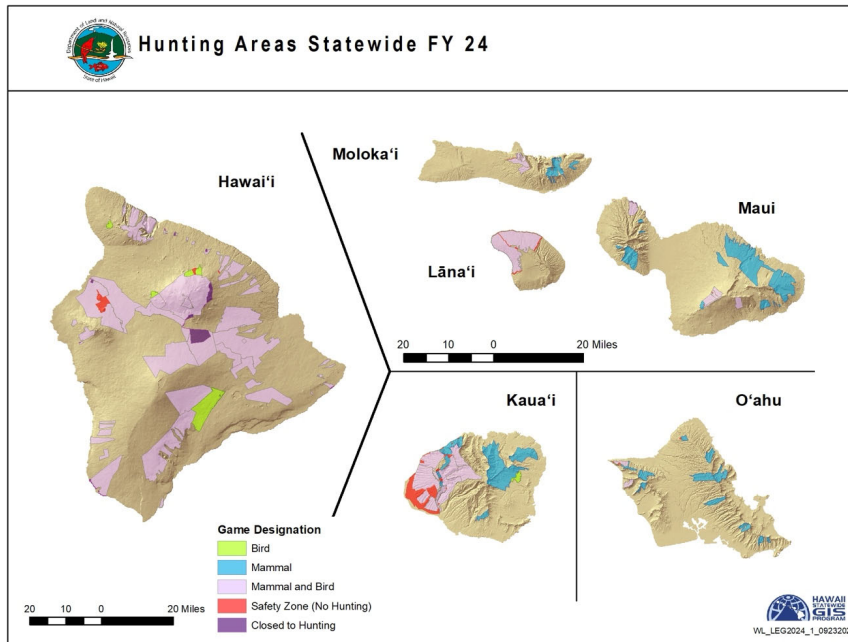


Figure 5. Revenue derived from the WRF for fiscal year 2002– 2023.



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KAUA'I BRANCH (for maps and photos, see Exhibit 1.)

Objectives: Maintain and enhance wildlife habitat and facilities in public hunting areas, game management areas, and wildlife sanctuaries; and improve game bird and game mammal hunting opportunities.

Accomplishments: Funding was used to manage habitat for game birds and maintain infrastructure designed to facilitate game bird hunting. For specific activities, see the following:

Funded a Project Assistant through the Research Corporation of the University of Hawai'i (RCUH). The primary function for this position was to assist the Game Program Biologist in:

- Habitat management by range mowing.
- Game bird propagation project operations.
- Maintaining access locks and gates to control hunt areas.
- Field operations to manage and maintain game mammal and bird habitat.
- Assist in predator control in and around the GMA.
- Planning, coordination, and logistics for the Game Management Section.
- Gamebird Propagation:
 - Import game birds for rearing and release.
 - Breed, incubate, rear, and release.
 - Construct and maintain watering units, brooder, and fly pens.
 - Purchase food and other materials to support live birds.

Habitat Management and Operations

Repaired and maintained tractors, mowers, and road and habitat maintenance equipment. (Kekaha GMA, Wailua GMA and Unit L). Purchased supplies for power tools used to maintain access infrastructure and roads.

Maintained (250) acres of viable game bird habitat/traversable hunting grounds with Kubota tractors and various mower attachments.

Game Bird Propagation

Successfully imported (400) ring-necked pheasants for the upcoming FY 2024-25 game bird season. (Kekaha and Wailua GMA). Birds will be released every few weeks during the game bird hunting season.

Successfully bred, incubated, and reared 1000 ringneck, melanistic mutant, and hybrid ringneck/mutant. Pheasants will be released throughout the game bird season.

Future Program Plans

1. Fund a Wildlife Technician position to perform tasks related to the ongoing management of public hunting areas—\$75,000 (100% WRF). This position will assist the game management Wildlife Biologist in field operations.
2. Fund an RCUH Wildlife Technician position to perform tasks related to the ongoing management of public hunting areas—\$10,000 (100% WRF). This position will assist the game management Wildlife Biologist in various game operations and projects.
3. Purchase 650 pheasants, bird feed, and other supplies to maintain the gamebird propagation program annually- \$5,000 (100% WRF)
4. Purchase equipment and supplies needed for ongoing operations and maintenance in wildlife management areas—\$25,000 (100% WRF).
5. Purchase incubating supplies, brooding supplies, and feed to propagate up to 1,000 ring-necked pheasants and other game bird species annually - \$25,000 (100% WRF)

O‘AHU BRANCH (for maps and photos, see Exhibit 2.)

Game Management

Objectives: Maintain and enhance wildlife habitat and facilities in public hunting areas, game management areas, and wildlife sanctuaries; and improve game bird and game mammal hunting opportunities.

Accomplishments: Funding was used to manage habitat for game birds and maintain infrastructure designed to facilitate game bird hunting. For specific activities included:

1. Staff-
 - a. Funded a biological technician through the Research Corporation of the University of Hawai‘i (RCUH) to assist with various game-related projects, including:
 - a. Processing and issuing permits for ungulate control/hunting opportunities in forest reserves and other state lands not open to public hunting.
 - b. Assisted with the operation of a game bird propagation project.
 - c. Manages game bird releases and coordinates hunter volunteer opportunities.
 - d. Maintaining access locks and gates to control hunt areas.
 - e. Maintains digital profiles for public hunting units on OuterSpatial smartphone application.
 - f. Maintains predator trap lines and baiting procedures in Game Management Areas and game management facilities.
 - g. Collects and processes hunter check station data for analytical reporting.
 - h. Maintains all check station facilities and performs vegetation control at each site.
2. Habitat Management and Operations -
 - Repaired and maintained tractors, mowers, and equipment for road and habitat maintenance activities. Purchased supplies for power tools used to maintain access infrastructure and roads. Repaired and maintained WL side-by-side (Polaris Ranger),

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- critical for accessing remote and less accessible areas.
- Acres currently managed with heavy equipment for public hunting and habitat enhancement in Kuaokala GMA:
 - a. Forest Section – 26 acres
 - b. Ranch Section – 25 acres
- Acres Managed by Cattle Cooperative Agreement in Kuaokala GMA:
 - a. Ranch Section – 300 acres
- New Expansion of habitat in Kuaokala GMA in FY24:
 - a. Ranch Section – 6 acres

3. Game Bird Propagation -

- a. Program purchased nine New Brooder Box Systems (GQF 0534 Universal Box Brooder) to enhance the success and survivability of the day-old game bird chicks. Bringing our total of brooder box systems to (15) individual units. These systems aid with chick rearing, especially for the first three weeks. (Figure 2-4)
- b. Due to the rising interest of volunteer hunters wanting to incubate game bird eggs found in our fly pens, the program purchased the following items to start an incubating program (Figures 5 & 6):
 - a. (1) 1502 Sportsman Cabinet Incubator
 - b. (1) 1550 Digital Hatcher Cabinet
 - c. Accessories for each piece of new equipment: a humidity water bucket, egg trays, hatcher trays, cabinet casters, etc.
- c. The (2) Kawainui Fly Pens were maintained and repaired throughout the year. Additional chicken wire fencing was applied to prevent predators from entering. New 30' x 60' tarps were installed for the roof of the fly pen, allowing for more protection from the elements and protecting the interior habitat. New fly pen netting was purchased to prep for full facility replacement. (Figure 8)
- d. The Waialua Farm currently houses the following facilities for the game bird rearing project operated by volunteer hunters:
 - a. (3) Fly Pens
 - b. (6) Breeder Pens
 - c. (1) Feed/Storage House

This year, supplies were purchased to prep for a full revamp of the fly pen facilities. Replacement fly netting and some EZ corner framing were purchased as replacements from the following year. Some supplies included materials needed to repair the predator-proof fencing for the fly pens and breeder pens.
- e. Program purchased game bird feed for the various stages of the game bird raising project. Feed includes broiler starter, scratch feed, broiler finisher, bedding, and feeder/waterer equipment.
 - a. Broiler Starter Feed (50lbs) bags: 35
 - b. Broiler Finisher Feed (50lbs) bags: 256
 - c. Scratch Feed (50lbs) bags: 10
 - d. Bedding COB (50lbs) bags: 33
- f. For the 2023 -2024 Game Bird Season, Oahu DOFAW imported a total of (710) game birds:

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- a. (421) Kansas Ring-necked Pheasants
 - b. (184) Melanistic “Blue” Pheasants
 - c. (105) Jumbo Ring-necked Pheasants
4. New Hunting Areas and Access -
- a. Purchasing signage and other miscellaneous equipment to run special hunts or open new state-managed areas under a Wildlife Control Hunt program.

Oahu Division of Forestry and Wildlife-Game Program: Wildlife Control Permit System

A. Wildlife Control Permit Managed Areas

- 1. Waimanalo Forest Reserve (Archery Only)
- 2. Waianae Kai Restricted Watershed (Archery, Firearm, & Dog/Knife)
- 3. Pia Valley – Natural Area Reserve (Archery Only)
- 4. Moanalua Section – Honolulu Watershed Forest Reserve (Archery Only)
- 5. Manoa-Tantalus – Honolulu Watershed Forest Reserve (Archery Only)
- 6. Honouliuli Forest Reserve (Archery and Dog/Knife)
- 7. Board of Water Supply – Makaha Valley (Archery and Dog/Knife)
- 8. Honouliuli Forest Reserve (Archery and Dog/Knife)

WCP Summaries FY24

Date	Area	Hunters Trips	Boars	Sows	Billies	Nannies
July 2023		2	0	0	0	0
August 2023		82	10	6	0	0
September 2023		81	5	4	0	0
October 2023		50	2	2	0	0
November 2023		65	3	2	0	0
December 2023	DOFAW Lands	8	0	0	0	0
	Private Lands	62	8	5	0	0
January 2024	DOFAW Lands	7	1	0	0	0
	Private	50	10	5	0	0

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	Lands					
February 2024	DOFAW Lands	8	0	0	0	0
	Private Lands	42	5	3	0	0
March 2024	DOFAW Lands	2	0	0	0	0
	Private Lands	0	0	0	0	0
April 2024	DOFAW	3	0	0	0	0
	Private	65	10	5	0	0
May 2024	DOFAW	3	0	1	0	0
	Private	61	1	3	0	0
June 2024	DOFAW	1	0	0	0	0
	Private	63	5	6	0	0
July 2024	DOFAW	0	0	0	0	0
	Private	42	7	7	0	0
Total		701	67	448	0	0

Future Program Plans

6. Restore revenue from selling hunting tags, stamps, and fees and fill vacant General Laborer position - \$60,000 (100% WRF).
7. Fund a Wildlife Technician position to perform tasks related to the ongoing management of public hunting areas—\$25,000 (100% WRF). This position will assist the game management Wildlife Biologist in field operations.
8. Purchase equipment and supplies needed for ongoing operations and maintenance in wildlife management areas—\$15,000 (100% WRF).
9. Through partnerships with the University of Hawai‘i, fund graduate-level research to understand the socio-economic impacts of Hawai‘i’s hunters—\$10,000 (100% WRF).
10. Propagate and release 700 ring-necked pheasants and other game bird species annually - \$10,000 (100% WRF).
11. Expand field operations in Makua Kea’au Forest Reserve to incorporate increased game

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- mammal and bird hunting opportunities.
12. Improve facilities and equipment to better house the Game Bird Rearing Program for overall project success and efficiency.
 13. Improve parking lot areas for game bird hunting areas to handle the increase in users.

MAUI BRANCH (for maps and photos, see exhibit 3.)

Lease of Cooperative Game Management Area - Lānaʻi

Objective: Provide 30,000 acres of land on Lānaʻi for sport hunting and wildlife management.

Accomplishment: The annual lease rental for the Lānaʻi Cooperative Game Management Area (CGMA) was paid via WRF monies. This area allowed hunters to pursue Axis deer, Mouflon sheep, and a variety of game birds.

Game Mammal Aerial Survey - Lānaʻi

Objective: Conduct annual game mammal surveys of the Lānaʻi CGMA and private portions of Lānaʻi Island (Pulama Lanai) using a Hughes 500 helicopter. Surveys conducted on the state-managed portion of Lānaʻi are partly used for setting upcoming bag limits. Staff from Maui led the survey effort for both the fall and spring surveys. Associated costs for the spring survey include only staff travel.

Accomplishments: The 2023 fall game mammal aerial survey on the island of Lānaʻi occurred on September 11, 2023 (LCGMA) and September 12, 2023 (Pulama Lanai), and the 2024 spring game mammal survey was conducted on March 18, 2024 (LCGMA), and March 19, 2024 (Pulama Lanai). The aerial data from both surveys were used for the 2024 hunting seasons, including bag limit adjustments. A helicopter was used to conduct the fall survey. Travel costs for staff from Maui to conduct surveys for both the spring and fall surveys were charged to the Wildlife Revolving Fund.

Personnel Expenses - Lānaʻi

Objective: Maintain and service facilities and field operations on Lānaʻi through the Forestry and Wildlife Worker II position. Ensure the hunter check station is open beyond regular operating hours so that the public hunter can check in and purchase game tags.

Accomplishments: A Forestry and Wildlife Worker II position on Lānaʻi, was funded through the WRF and assisted the Forestry and Wildlife Technicians with the upkeep and maintenance of 30 miles of water unit pipeline, 25 water units, a multitude of signs, and 45 miles of access roads in the CGMA. The Forestry and Wildlife Worker II also supported habitat management, game bird and game mammal surveys, enclosure maintenance, predator control, and any other duties needed to support both the game and non-game program on Lānaʻi. Associated costs for overtime were due to hunter check station hours being opened beyond regular working hours.

Management of the Lottery Hunts - Lānaʻi

Objectives: Provide opportunities for the public to apply online for hunts. Conduct fair and equitable lotteries for the Axis deer and Mouflon sheep hunts on Lānaʻi. Mail application cards, including lottery results, to all online applicants. Provide hunters with the tags and approval forms needed for hunting on Lānaʻi. Maintain and improve the online application system and lottery program. Meet with Pulama Lanai to review and discuss upcoming hunting opportunities for the public.

Accomplishments: Hunters interested in applying for the state-managed hunts on Lānaʻi were required to apply online. Annual service fees were paid to the host of the online site for Lanai hunt applications. A lottery was conducted at the DLNR/DOFAW baseyard, and all successful applicants were mailed an application card. Permit cards were printed for the 2023 combination hunt and 2024 Lānaʻi Axis deer hunt, indicating the weekend a hunter was drawn. Additional blank axis deer and mouflon sheep cards were purchased as duplicates if hunters lost their original cards or never received them in the mail. Axis deer and mouflon sheep tags were purchased during the fiscal year. First-class stamps were purchased and used to mail applicants the permit cards, informing them of the dates they were allowed to hunt. The GoHunt website was further updated to enable hunters to see active hunts and upcoming hunt application availability. On October 12, 2023, DOFAW staff met with Pulama Lanai to review budgeting and future game bird and game mammal projects and to discuss upcoming hunts and issues regarding the state hunting program on Lānaʻi.

Game Mammal Facilities Operations and Maintenance – Maui District

Objectives: Rent dumpster(s) during the Axis deer and Mouflon sheep season for hunters to dispose of carcasses. Purchase materials/equipment required for the hunting program to function. Ensure vehicles are maintained and kept operational. Support travel to Lānaʻi for meetings and travel to outer islands for game-related meetings. Purchase supplies for the office/hunter check station to ensure that the office/hunter check station can support staff in assisting the hunting public. Hire a cleaning service for the Lānaʻi office to ensure the office is kept in a sanitary condition. Support other aspects of maintaining the hunting program for the district of Maui. Road maintenance for approximately 45 miles of roads within the Lānaʻi Cooperative Game Management Area. Purchase pheasant chicks and supplies for rearing and release into public hunting areas. Purchase satellite collars for animal tracking/monitoring within the cooperative game management area. Purchase updated cell phones and computers for wildlife staff.

Accomplishments: Dumpsters were rented for the Axis Deer and Mouflon Sheep hunts, which provided the hunting community with the facilities to dispose of animal carcasses. Hardware items were purchased to maintain infrastructure within the Lānaʻi Cooperative Game Management Area. Supplies/materials for water units were purchased and shipped to Lānaʻi to repair any water units that showed wear and tear or were damaged. Vehicle repairs were charged to this fund, ensuring staff vehicles were available and maintained for completing wildlife projects and maintaining facilities. Office supplies were purchased to ensure the office was

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supplied to better service the public. A cleaning company was hired to clean the Lānaʻi hunter check station office. Approximately 250 pheasant chicks were purchased and released in public hunting areas in Maui. Feed was purchased and provided to the individuals raising the birds. Twelve satellite collars were purchased and will be used to collar six deer and six sheep within the Lanai cooperative game management area to track movement patterns. Due to time/budget constraints, six collars have been placed on animals: four does and two ewes. All wildlife staff cell phones were replaced during FY24 using WRF monies. Cell phones are needed to maintain adequate communication while staff are working in remote locations and to ensure they are available to contact if wildlife issues arise. New desktop and laptop computers were purchased for staff on Molokai and Maui. Outdated computers on Molokai and Maui made accessing data and report writing difficult.

Current and Future Program Plans

1. Fund lease on Lānaʻi - \$1,000 (100%WRF).
2. Fund Forestry and Wildlife Worker II position on Lānaʻi for facility upkeep and maintenance - \$85,000 (100% WRF).
3. Fund Lānaʻi check station overtime for Forestry and Wildlife Technician V and IV positions - \$5,000 (100% WRF).
4. Fund game mammal surveys on Lānaʻi - \$20,000 (100% WRF).
5. Fund management of lottery hunts on Lānaʻi; document printing, data input, updating and improving the online application, and computer-generated lotteries and drawings - \$5,000 (100% WRF).
6. Fund game mammal facilities development, operations, and maintenance on Lānaʻi - \$50,000 (100% WRF).
7. Fund clerk position for Lānaʻi check station - \$50,000 (100% WRF).
8. Purchase flatbed truck - \$75,000 (75% WRF).
9. Fund road repairs – \$50,000 (75% WRF)
10. Fund vehicle repairs and maintenance - \$25,000 (50% WRF)
11. Helicopter rental for satellite collar operations - \$20,000.00 (100% WRF)
12. Fund the purchasing and feeding of game birds to be released within Maui Nui - \$5,000.00 (100% WRF)

WEST HAWAII (for maps and photos, see exhibit 4.)

Kamuela State Tree Nursery Base Yard Security Fence Installation

Objective: Install a 6' tall chain-link fence surrounding the State Tree Nursery in Kamuela.

Accomplishment: The chain link fence was completely installed by May 2024.

Sheep and Goat Surveys at Puʻu Anahulu and Puʻu Waʻawaʻa

Objectives: accurately estimate sheep and goat population numbers in public hunting units E (Puʻu Anahulu GMA) and F (Puʻu Waʻawaʻa Forest Reserve).

Accomplishment: The deployment of 80 game cameras was postponed in FY24. Brigham

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Young University's statistical analysis has also been delayed and will be available in October 2024. Anecdotally, the goat population has not increased significantly in 2023 or 2024. Nevertheless, the board approved a temporary rules change, which should increase the harvest of goats and sheep in these two areas.

Game Bird rearing and release program

Objectives: Support sport hunting of game birds and supplement natural game bird populations by purchasing select gamebird species for rearing and release in PHA and safety zones. 12

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Accomplishment: In FY24, students from Kohala High School raised and released 450 chukar partridge into the public hunting area on Mauna Kea GMA and Forest Reserve, hunting unit A, and Ka'ohe GMA, hunting unit G. This is a 125% increase from FY23.

In FY24, we also assisted Kanu o Ka Aina New Century Public Charter School in developing its own game bird rearing program. We built a fly pen at the Kamuela DOFAW base yard to help raise 250 pheasants, which will be released before the game bird season.

Predator Control Program

Objective: Support native and game bird populations through trapping and removing mongooses and cats at Puu Waawaa Forest Reserve.

In FY24, the wildlife revolving fund provided funds to support a 0.5 % FTE general labor position assigned to predator control in the Pu'u Wa'awa'a Forest Reserve. Consequently, we trapped and removed 262 mongooses and six cats. It has been approximately three years since any predator control occurred in the area.

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Future Plans and Projects

1. Annual sheep and goat surveys using camera traps (\$15,000, 20% WRF).
2. Support game bird facilities and game bird rearing activities (\$2,000 100%WRF)
3. Expand and improve the game bird release program (\$2,500 100% WRF)
4. Fill the position of the half-time general laborer (\$42,000 50%fte 100% WRF).
5. Improve game bird habitat on Mauna Kea.

EAST HAWAII (for maps and photos, see exhibit 4.)

Objectives: Maintain and enhance wildlife habitat and facilities in public hunting areas, game management areas, and wildlife sanctuaries; and improve game bird and game mammal hunting opportunities.

Accomplishments: Funding was used to manage habitat for game birds and maintain infrastructure designed to facilitate game bird hunting. For specific activities, see the following:

1) Game Bird Propagation and Release:

Summary: During FY24, East Hawaii WLRF was used primarily to enhance the program's capacity to rear and release game birds, enhance the breeding stock of game birds in public hunting areas, and provide huntable birds during the hunting season. Below are more details about how funds were used:

- a. Completed the development of a hatching/brooding facility to hatch and rear game birds at the Hilo DOFAW branch. Finished installing an electrical system with the use of an electrical contractor. Purchased and installed a ventilation system to enhance circulation and temperature control within the facility.
- b. Purchased a cabinet incubator and cabinet hatcher to incubate and hatch eggs collected from program-raised ring-necked pheasant breeding stock. Purchased brooder supplies to rear chicks (i.e., stock troughs, bedding, heat lamps, feeders, waterers, lumber, etc.).
- c. Rehabilitate and improve an area within the Mauna Kea Forest Reserve to expand game bird rearing facilities. Rented large roll-off style dumpsters to remove and dispose of waste material (i.e., wood, wire, metal, etc.) from dilapidated structures and pay for the hauling and disposal. We purchased aggregate material to improve the usability of the sites after trash was removed and the area was cleared with heavy machinery.
- d. Construct a 40ft X 80ft fly pen to rear and finish (raise to maturity) game birds. We purchased materials and tools to construct the fly pen (i.e., metal pipe, cables, fence wire, posts, support cables, netting, chicken wire, cement, hardware, and welding supplies).
- e. Purchased miscellaneous rearing supplies to support the rear/release program, such as feed, feeders, waterers, bedding, heat lamps, and seed.
- f. Purchase materials and supplies to maintain existing flight pens and keep them in proper working condition.
- g. Importation of game bird chicks. Funds are used for purchasing and shipment of birds from the continental U.S. The following game birds were to Hawaii to increase the number of birds released into public hunting areas and to support the breeding stock of birds maintained by the East Hawaii Wildlife program:
 - i. 350 Manchurian/Standard Ring-necked Pheasants
 - ii. 470 Chukar Partridges

2) General Operations

- a. Purchased a 4x4 truck to support game project field operations.
- b. Purchased a new transmission to replace a faulty one in the program's late-model F350 diesel truck.

Future Goals

- 1) Construct an additional game bird fly pen and intermediate holding building to increase the capacity of the game bird rear/release project.
- 2) Purchase feed and facility maintenance supplies and materials to maintain the existing game bird rear/release project.

- 3) Cabin, fence, and gate repair/replacement around the Pohakuloa gamebird pen and cabin area to enhance security, improve game bird habitat enhancement projects, and increase project opportunities.
- 4) Support game habitat enhancement projects

ADMINISTRATION (for maps and photos, see exhibit 5.)

Objectives: assist and maintain a recreational public hunting program that does not threaten the persistence of native species and ecosystems in Hawaii. Public hunting provides a valuable tool in controlling game mammals on public and private lands where control is needed and funds are scarce. The Hawaii Division of Forestry and Wildlife (DOFAW) public hunting program supports and facilitates hunting on public and private lands by providing a structured program that promotes and encourages participation. The program aims to direct hunting toward less ecologically sensitive areas while providing structured hunter access to more remote/pristine sites where recreational hunting can help control game mammal populations.

The Game Program Planning and Coordination section provides staff and procedures to ensure that the State meets its responsibilities for participation in the Federal Assistance program, including long-term planning, compliance, record keeping, reporting, field staff supervision, and coordination of game Federal Assistance activities with the Service and other State and agency programs. Coordination of State and Federal funds for the program helps ensure continued participation in the Pittman-Robertson Federal Assistance program. It thereby improves hunting and increases sport hunting opportunities, protects and enhances wildlife habitat on both public and private land, improves the integration of game management activities with other compatible or competing uses, and provides information on the wise management and appropriate use of game species.

Notification of Hunting Season Openings and Changes

- Several legal notices announcing new animal control opportunities for hunters were produced, and a series of announcements and news releases were created for hunting seasons throughout the year. All lottery hunts were conducted on Lanai for FY 2024. All other statewide hunting opportunities were offered per the division's hunting regulations. See our hunting announcement page: <https://dlnr.hawaii.gov/recreation/hunting/hunting-announcements/>

Implementation of Communication Strategies to Improve Hunter Recruitment and Retention

- The quarterly informational newsletter is published if time allows. The *Go Hunt Hawai'i* newsletter is an informational newsletter to connect hunters and DOFAW resource managers. This newsletter is available online on the DOFAW website. <https://dlnr.hawaii.gov/recreation/hunting/go-hunt-hawaii-newsletter/>
- A listserv was created for those interested in signing up to receive hunting-related updates, announcements, and newsletters. There are now 19,539 people signed up on this mailing list. People may sign up online (dlnr.hawaii.gov/recreation/hunting/). Sign-up sheets are also available at all DOFAW offices and at every hunter education class.

Public Engagement in Game Management

Public hunters continue to assist the Division with Game Bird surveys on Mauna Kea. 73 transects were selected at Kapapala, and 68 were selected at Mauna Kea. Game Bird Surveys are conducted with and without dogs each year. Data has shown that using dogs produces more accurate estimates of game birds than without using dogs. In 2023, data collected was entered into a Survey 123 application so that surveyors can electronically enter data when conducting field surveys and provide more accessible analysis. Ongoing efforts are underway to enhance the survey to capture the best-fit data while adding additional survey locations throughout the state.

A majority of our Game Bird program involves public/volunteer participation. Without this assistance, the program would not be where it is today. Volunteers are vital to the program's success and have been shown for the Oahu, Kauai, and Hawaii islands.

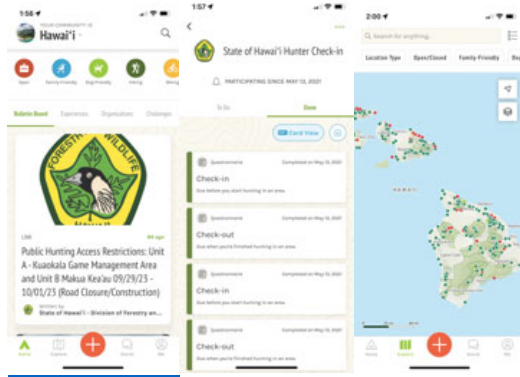
Administration

- State-wide Hunting License Sales Administration and Coordination
- Clerical staff assisted with license sales and disseminating information pertinent to the upcoming season information.
- Conducted a Conservation and Game Bird Stamp contest for stamps to be used as stamps on the New Year hunting license. Chosen artists can receive up to a \$1000.00 award.
- Funds were used for travel reimbursements for the Game Management Advisory Commission. Virtual platforms were also utilized, along with in-person meetings. Future meetings will require an in-person option, and future travel reimbursements will be processed via this fund.
- Public hunters participated in our state-wide game bird rear and release project, which has been successful over the years with continued participation. This program has developed many relationships.
- Public consultation has been sought for new public hunting areas that are being proposed.

Outdoor Hunting and Trails Mobile Application

- Continue contract administration and project development with Trailhead Labs, Inc., to maintain and enhance a hunting and trail program mobile application. The OuterSpatial mobile application was launched in July 2021. Hunters have utilized the platform for its electronic hunter check-in and harvest reporting feature. Prior year funds supported this project. Over 3000 hunters have used the electronic hunter check, and thousands more are using the app for other recreational activities. <https://dlnr.hawaii.gov/dofaw/app/>. DOFAW has developed a DOCARE officer login to access hunter check station data for enforcement purposes. The project is supported by the Wildlife Revolving Fund.

RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024



Electronic Hunting Tags and Permit System

- Continue project development with web vendor Tyler Technologies, Inc. regarding the online hunting tag and permit portal hosted on GOHUNT HAWAII. The new system was made available to the public to purchase tags and permits in May 2022. Over 1000 online permits and tags were sold during FY24, with an estimated revenue of \$223,000. A new convenient way for hunters to acquire Tags and Permits. Revenues from the sales of hunting licenses and tags support this project. This new system has been updated to allow a shopping cart style checkout, which allows a hunter to purchase several tags at a time with no convenience fees passed on to the user.

Planning documents, Agreements, and Research

- Funding supported a research project through the University of Hawaii at Manoa. The project is titled “Ungulate Distribution Models for Conservation and Recreational Hunting: Hawaii Island.” This project aims to develop a management prioritization model that identifies areas for conservation and publicly accessible hunting and recreation based on validated ungulate distribution models for the main Hawaiian Islands.
- *Objectives:* Complete investigations to acquire, map, and analyze ungulate distribution data on Hawai‘i Island and to create prioritization models for conservation and recreational hunting on Hawai‘i Island. This project is now complete.
- Funding supported an ongoing project for the Kanaio Forestry and Wildlife Area, Maui. DOFAW proposes establishing a Forestry and Wildlife Area on State and privately-owned lands in southwestern Maui (Figure 1). The approximately 7,460.66-acre Kanaio Forestry and Wildlife Area (KFWA) would be located within the *ahupua‘a* (traditional land divisions) of Kanaio, Kalo‘i, Kaunuahane, and Papaka Kai in the traditional *moku* (district) of Honua‘ula (now the district of Makawao) on the island of Maui [TMK: (2) 2-1-002:001 and 2-1-004:006]. The proposed KFWA is located on the southwestern flank of the shield dome volcano of Haleakalā. It is bordered to the north by the Pi‘ilani Highway, to the west by ‘Ulupalakua Ranchlands, to the east by the Auwahi wind farm, and extends to the south down to the shoreline. The proposed KFWA ranges from sea level to approximately 1,600 feet (500 meters) in elevation and contains highly disturbed habitats with pockets of remnant native forest, including several threatened and

RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024

endangered species and many traditional Hawaiian cultural resources.
The goals for the establishment of the KFWA are to:

1. Protect the area’s natural and cultural resources.
2. Provide opportunities for public hunting to reduce invasive ungulates.
3. Maintain public access to public lands and coastline.

Once established, the KFWA may consist of both public and private lands, with the private lands being designated as a Game Management Area (GMA) and the state-owned lands designated as a Forest Reserve (through due process as per Hawaii Revised Statutes Chapter 183, Forest Reserves, Water Development, Zoning). DOFAW is proposing compatible uses for the proposed Forest Reserve area. These include hunting, threatened and endangered species management, and cultural site and native ecosystem protection.

Table 2. Fee schedule for hunting licenses, wildlife stamps, applications, permits, and tags for special or lottery hunts.

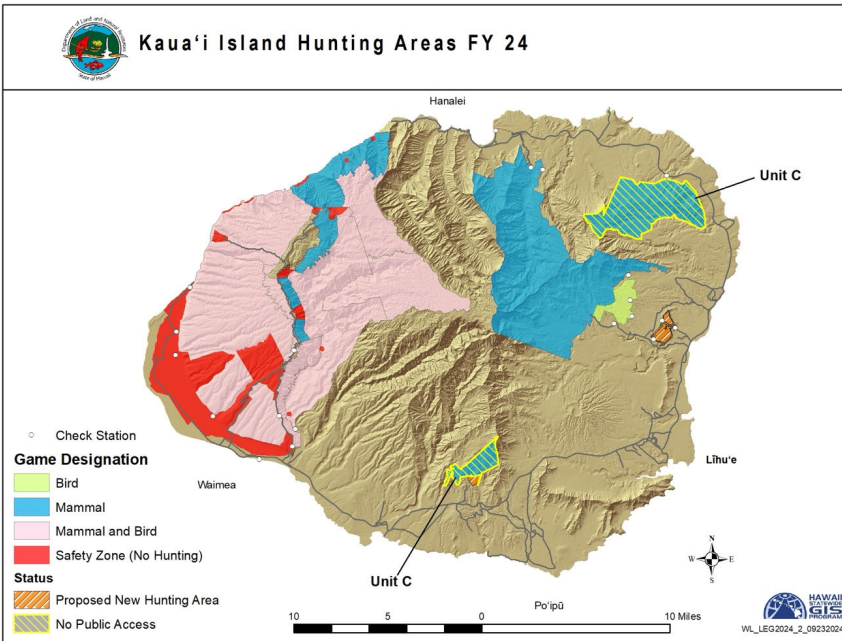
Island	Item	Resident	Non-resident
All islands statewide	Hunting License*	\$10	\$95
	Wildlife Conservation Stamp	\$10	\$10
	Game Bird Stamp	\$10	\$10
	Spring Turkey Tags	\$5	\$20
Kaua‘i	Black Tailed Deer Hunts Rifle Tag Application	\$5	\$5
	Rifle Tag	\$10	\$25
	Muzzleloader Permit-Tag	\$5	\$25
	Archery Permit Tag	\$5	\$25
	Feral Goat Hunts Rifle Lottery Tag Applications (Unit B)	\$5	\$10
	Rifle Lottery Tags (Unit B)	\$10	\$25
	Muzzleloader Permit-Tags (Units A & F)	\$5	\$25
	Annual Archery Permit (Units G, F, & K)	\$5	\$25
	Feral Pig Hunts Season Permit	\$5	\$25
	Special Hunts Application	\$5	\$5
	Goat/Deer/Pig Permit (Units E & H)	\$10	\$25
Lāna‘i	Mouflon Sheep Season Lottery Application	\$10	\$10
	Mouflon Sheep Season Tag	\$20	\$125
	Axis Deer Season Lottery Application	\$10	\$10
	Axis Deer Season Tag	\$20	\$125
Hawai‘i	Pu‘u Wa‘awa‘a Feral Sheep or Goat Tag	\$10	\$25
	Pu‘u Anahulu Feral Sheep or Goat Tag	\$10	\$25

*Free to all Hawai‘i residents 65 years or older and to all persons with Hansen’s disease who are residents of Kalapapa, Moloka‘i.

ATTACHMENT I: WILDLIFE REVOLVING FUND EXPENDITURE CATEGORIES

1. Development, improvement, and management of existing and new public hunting and game management facilities, including installing or maintaining hunter access roads, checking stations, fences, gates, stiles, cattle guards, entry/safety/boundary signs and markers, parking lots, sanitary facilities, water tanks, and campsites.
2. Development, improvement, and management of existing and new wildlife sanctuary facilities, including fences, moats, water control structures, pumps, ditches, nesting sites, holding pens, boardwalks, viewing kiosks, watering devices, parking lots, sanitary facilities, and entry and interpretive signs.
3. Wildlife habitat improvements, including game bird and mammal watering units, food plots, vegetation clearing, and mowing; non-game/endangered species enclosures, exclosures, noxious weed control, mowing, and nest sites; and wildlife predator control, water quality testing, and rehabilitation.
4. Personnel hired for wildlife management and hunter education, including Wildlife Management Assistants and General Laborers (for hunter checking station operation, public hunting area management, pest plant control, predator control, habitat development, and posting signs and markers), computer technicians (for public hunting lotteries), and hunter education specialists.
5. Wildlife management equipment, including tractors, bulldozers, all-terrain vehicles, collecting arms, radios, outboard motors, small boats, binoculars, trucks, and 4-wheel drive vehicles.
6. Development and operation of public shooting ranges with the Hunter Education Program.
7. Research, surveys, and inventories for game and non-game/endangered species, including rental of helicopters, infrared technology, temporary hires, equipment rental, materials and supplies, and contracts for studies (game birds, forest birds, waterbirds, seabirds, Hawaiian bat, owls, disease, genetics, food habits, ungulates, limiting factors, etc.).
8. Public education on wildlife management, including the development of the “Wilderness Watch” program, providing maps and area informational leaflets, and interpretative facilities at game management areas and wildlife sanctuaries, and technical assistance to the public on wildlife management.
9. Rental of land for public hunting and wildlife management.
10. Law enforcement.

Exhibit 1.



Kekaha Range Mowing, Kauai

RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024



Game bird rearing Kauai



Exhibit 2.

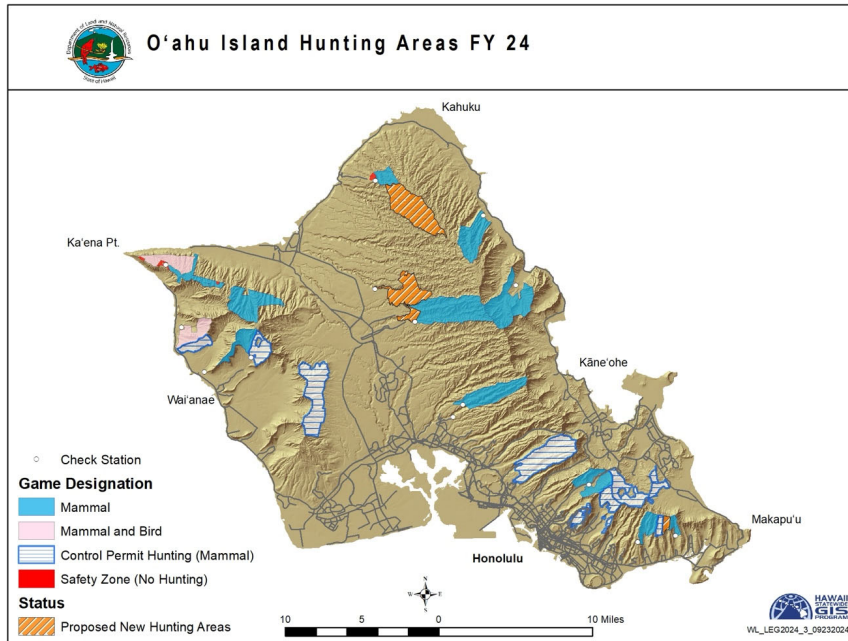


Figure 1. Feed and bedding were purchased to maintain the game birds throughout the rearing project.



Figure 2-4. New Brooder Box Systems (GQF 0534 Universal Box Brooder). Nine were purchased to improve the rearing process of day-old chicks arriving on the island. Incorporated with self-regulating thermostats, outside feeders/waterers, and sliding soiled trays, it allows for much easier maintenance. The program will investigate obtaining more of these brooder systems since there was a higher survival rate using these compared to the aluminum troughs from last year. Troughs still prove helpful when the chicks pass four weeks of age.



Figure 4. Additional game bird brooders were purchased for the new chicks during the first 3 weeks.



Figure 5 & 6. Incubator and Hatcher equipment used for the various game bird species eggs we gathered from our breeder pens at Waialua Fly Pen and Kawainui Fly Pens.



Figure 7. The Makiki Baseyard Brooder house has feed trough style brooders. Each brooder trough is fixed with headlamps, waterers, feeders, and wood shavings.



Figure 8. DOFAW managed Flight Pens. Volunteer public hunters help at all stages of the rearing program.



Figure 9. Game Bird Volunteer hunters help DOFAW staff maintain a picnic area and outplant native plants.



Figure 10. Harvested Ring-Necked Pheasant from the rearing program.



Figure 11. Ring-necked Pheasant being released in Kuaokala GMA, Oahu.

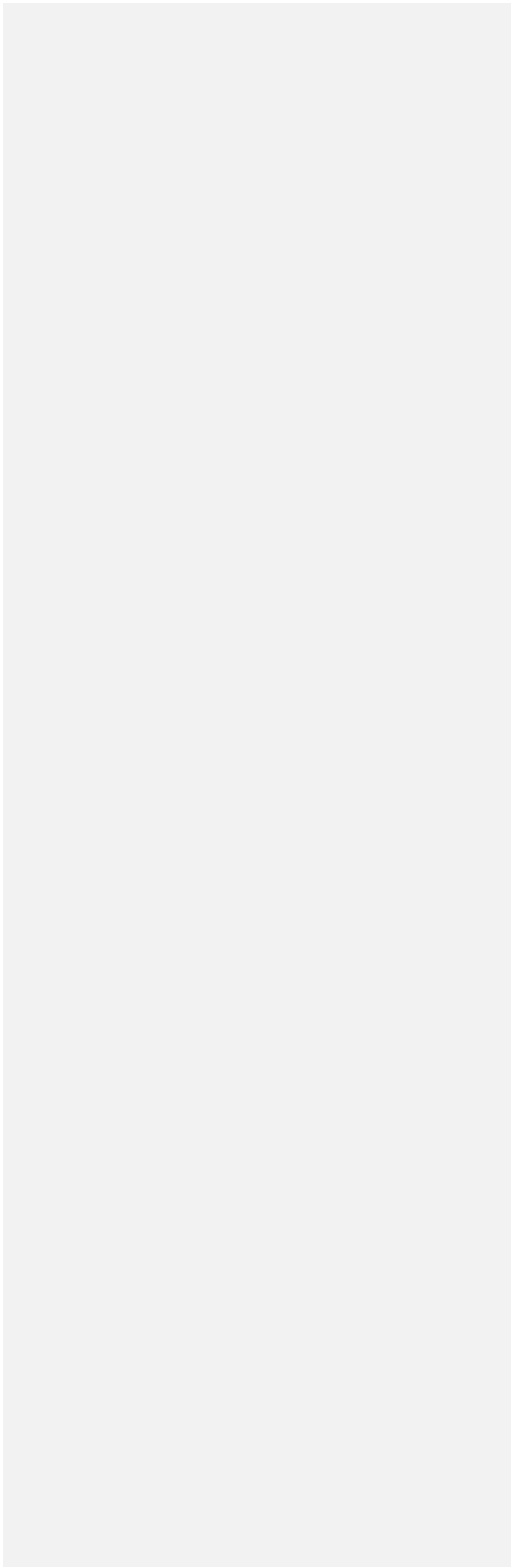


Exhibit 3

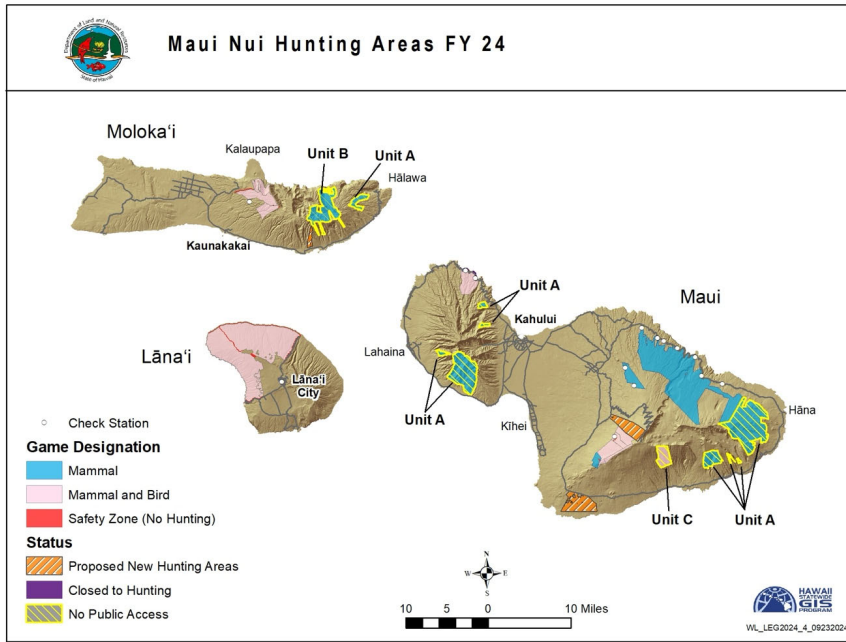
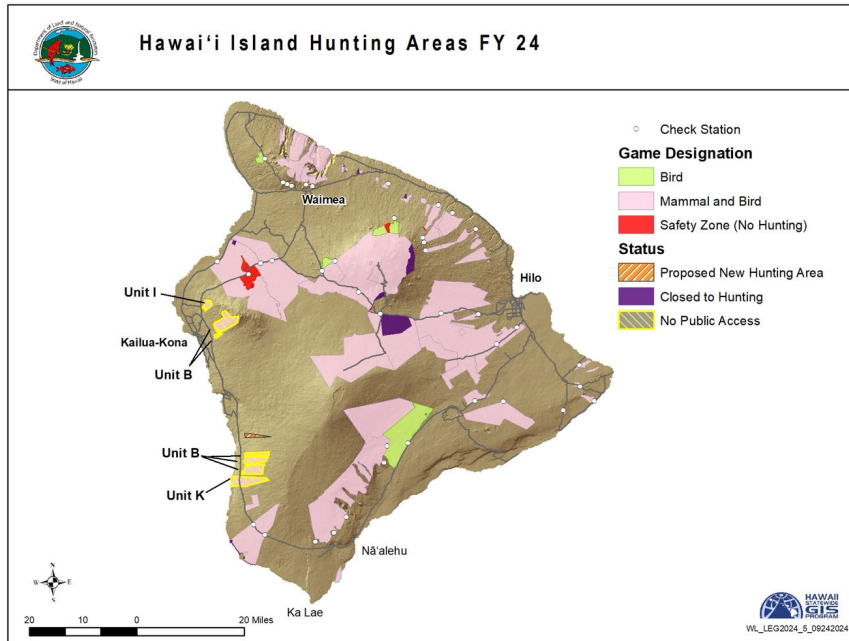


Exhibit 4.



Completed and functioning hatching/brooding facility for game birds. East Hawaii



Photo 3. Cabinet incubator and hatcher in the EH Wildlife programs hatching/brooding facility. Electrical and ventilation were installed during FY24 using WLR.



Photo 4 and 5. Delivery and spreading of aggregate material to prepare additional sites to support the East Hawaii Wildlife game program. East Hawaii

RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024



Photo 5. Completed 40ft X 80ft game bird rearing flight pen. East Hawaii

Exhibit 5.

Go Hunt Hawai'i Newsletter (Jan. 2022 / Feb. 2022)

GO HUNT Hawai'i
CONNECTING HUNTERS & RESOURCE MANAGERS

THANK YOU VOLUNTEERS!

Game Bird Survey on Koolaha GMA 2021 Pheasant Release Project on Koolaha Game Bird Propagation Project on O'ahu

We conducted a volunteer game bird survey on Koolaha GMA. We wanted to thank the volunteers who took the time out of their busy schedules to assist with the survey.

Volunteers: Kevin Veleba, Nick Craft, Jesse Abincho, Jeff Truitt, Kevin Mousman, Doree Mousman, Lynn Mousman, Morgan Moses, Isaac, Cory Carreno, Kasei Harris, James Marquis, Teddy Perreus, Ian Bush, Cory Lim, Amy Lauren Lum, Joel Andre, Jake Moore.

Volunteers: Chris Cosarella, Choe Cosarella, Sean Kim, Cory Lim, Amy Lauren Lum, Mark Sorens, Wayne Sorens, Leslie Sorens, Jeff Truitt, Hope Kneels, Adam

Volunteers: Gordon Linn, Steve Dowell, Lisa (Doree) Sorens, Mark Dowell, Jacob Dowell, Tom Dowell, Matt Moore, Mark Peritz, Holly Peritz, Evelyn Peritz, Madeline Peritz, Rodney Mac, Tip Sorens, Brian Tokunaga, Bryan M. Lee, Curtis Lee, Jason Cho, Nelson Cho, Glenn Ching, Gerald Haly, Raymond Sappigo, Douglas Sandberg, Michael Cruz.

Game Bird Propagation Project on O'ahu

On O'ahu, a total of 100 Ring-necked Pheasants, 100 Melanotic (Blue) Mutant Pheasants, and 100 Chukar Partridges were released at the Koolaha GMA. DOFAW would like to thank the volunteers who helped with this year's game bird project.

Volunteers: Gordon Linn, Steve Dowell, Lisa (Doree) Sorens, Mark Dowell, Jacob Dowell, Tom Dowell, Matt Moore, Mark Peritz, Holly Peritz, Evelyn Peritz, Madeline Peritz, Rodney Mac, Tip Sorens, Brian Tokunaga, Bryan M. Lee, Curtis Lee, Jason Cho, Nelson Cho, Glenn Ching, Gerald Haly, Raymond Sappigo, Douglas Sandberg, Michael Cruz.

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NEW UPDATED GO HUNT PORTAL: APPLY FOR HUNTS & PURCHASE TAGS ONLINE

Hunters can now purchase tags, permits, and apply for hunts online through a new service provided by Hawai'i DLNR. The service can be accessed from the Hunt section of the Division of Forestry & Wildlife website, where users can click "Purchase Tags & Permits" and/or "Apply for Hunts".

Users can log in and select the tags or permits they want to purchase, and submit applications for hunting. Required information can be entered into the online form, and payment can be made through the website.

After payment, users can simply download their purchased tags, permits, or applications. Should the user misplace their downloaded copy, she or he can find the tag or permit at anytime from the portal's My Tags & Permits page.

ANNOUNCEMENTS

HUNTING STAMP CONTEXT

DOFAW SEEKING ART ENTRIES

The 2022-2023 Hunting Stamp contest is now open! The subjects for this year are the Chukar Partridge (Mouflon chukar) and the Maui Noddy.

Artists interested in entering the contest must submit their paintings by February 15, 2022. The winner will be notified on March 2022, with a maximum prize of \$1,000.

For more information, click [HERE](#).

DOFAW would like to thank all wildlife artists who submitted art entries for the 2022-2023 Hawaii Hunting Stamp Contest. A committee reviewed all submissions in the subject categories: Ring-necked Pheasant (Phasianidae), Mouflon Sheep (Caprinae), and Mouflon Sheep (Caprinae). Two winners were chosen. Please see:

HAWAII - Young Hunter
HAWAII - Michael Kelly

Department of Land and Natural Resources, Division of Forestry and Wildlife
www.dlnr.hawaii.gov/recreation/hunting

FEBRUARY 2022

GO HUNT Hawai'i
CONNECTING HUNTERS & RESOURCE MANAGERS

PRELIMINARY RESULTS OF UNGULATES DISTRIBUTION RESEARCH ON KAUAI ISLAND

In the first quarter of 2017, DOFAW released a study conducted by the University of Hawai'i Department of Natural Resources and Environmental Management research team to determine the distribution of ungulates on O'ahu and Maui with the purpose to assess the effectiveness of exclusion and direct take methods, the key strategies that are currently used to manage ungulates across the State.

Recently, the study expanded that research to the island of Kauai to inform game management and conservation decision making for feral pigs (Sus scrofa), feral goats (Capra hircus), and black-tailed deer (Odocoileus hemionus). In addressing these issues, the study identified seasonal patterns in ungulate distribution and potential species interactions between the three ungulate species. Data was collected over two seasons from July 15th to December 11th, 2020 (fall) and March 15th to July 12th, 2021 (spring). Feral pigs were the most frequently detected species, having been observed at 53 locations followed by black-tailed deer at 30 locations and feral goats were only observed at 9 locations. Preliminary model results indicate that two environmental variables were most important in predicting each species distribution.

Figure 1. Map of feral pig relative abundance on Kauai.

Figure 1. Map of feral pig relative abundance on Kauai.

Figure 1. Map of feral pig relative abundance on Kauai.

Figure 1. Map of feral pig relative abundance on Kauai.

NEW ONLINE HUNTER CHECK STATION

CHECK-IN STEPS

- Download the Outfitter's App.
- Navigate to the message community and go to "Challenge" or click on the red plus button on the page and then click "Hunting Check-in".
- Create an account, if you have not already.
- Click on Check-in.
- Select whether you are hunting.
- Enter your name and the names of everyone in your party.
- Enter your Hunting License # and Vehicle License #.
- Select the game you intend to hunt.

CHECK-OUT STEPS

- Enter the day when you completed your hunt.
- Select the "Check-out" icon and then the game species you harvested (if any).
- If your harvest contained a band or tag of any type, please enter the number or color.
- Add the amount of your harvest.

ANNOUNCEMENTS

HUNTING ETIQUETTE 101

RESPECT THE LAW

State hunting regulations are designed to protect the resource, access and the hunter. In the State of Hawaii, hunting is regulated by the Hawaii Administrative Rules, Title 13, Chapter 121 & 122. Rules regarding Game Animal and Game Bird hunting. It is the hunter's responsibility to obey laws.

- A valid Hawaii hunting license on their person to hunt or to have a tagged game animal in their possession.
- A currently valid \$10.00 Hawaii Wildlife Commission Stamp is also required to hunt game mammals and an additional game bird stamp for game bird hunting.

HAWAII ISLAND

SPRING TURKEY SEASON

The 2022 Spring Banded Turkey Hunting Season opened on January 1, 2022 and will run until April 15, 2022.

You can now purchase your Tag online through the new GO HUNT PORTAL under "Purchase Tags & Permits". For more information click [HERE](#).

LANA'I

MOUFLON SHEEP CONTROL HUNT

A special 2022 Mouflon Sheep Control Hunt will be held during the month of April during the weekends.

For more information click [HERE](#).

COMMISSION UPDATES

The Maui and West Hawaii Commission seats are still vacant. The State Game Management Advisory Commission (SGMAC) is seeking applicants. If you are interested in serving on the SGMAC, please fill out the online application [HERE](#).

Department of Land and Natural Resources, Division of Forestry and Wildlife
www.dlnr.hawaii.gov/recreation/hunting

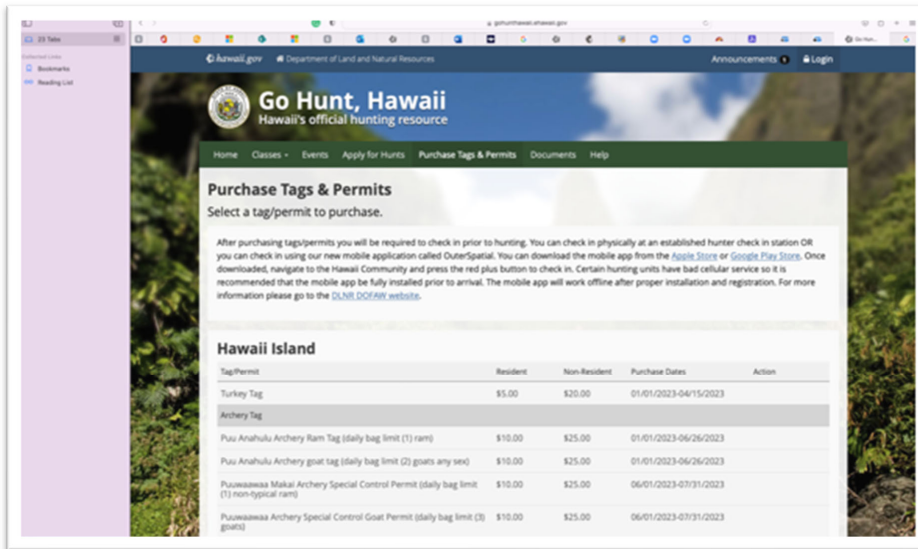
RELATING TO THE WILDLIFE REVOLVING FUND FISCAL YEAR 2024

Wildlife Conservation and game bird stamp awards 2023. Each artist is awarded up to \$1000.00.

Artist Jon Ching



Artist Buck Spencer



Online hunting Tag and Permit Portal developed by Tyler Technologies