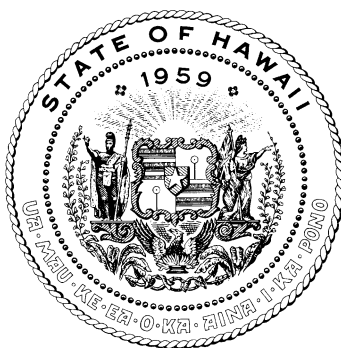


REPORT TO THE THIRTY-SECOND LEGISLATURE
STATE OF HAWAII
2024 REGULAR SESSION

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO
CONVENE A TASK FORCE TO DEVELOP A FERAL UNGULATE MANAGEMENT
PLAN FOR WEST HAWAII



Prepared by

THE STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
In response to House Concurrent Resolution 17 Regular Session of 2022

December 2023

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO
CONVENE A TASK FORCE TO DEVELOP A FERAL UNGULATE MANAGEMENT
PLAN FOR WEST HAWAII

PURPOSE

The legislature finds that populations of feral goats and pigs in west Hawaii have increased to sizes the environment cannot sustain. Feral ungulates in Hawaii have no natural predators to limit their population growth and impact on native ecosystems. Feral ungulates may contribute to the spread of rapid ohia death, and the overpopulation of feral ungulates significantly impacts the health of watersheds and coral reefs through increased vegetative disturbance and erosion and creates major hazards on roadways. Collaborative efforts are needed to identify opportunities for more effective management of feral ungulate populations, such as higher bag limits and increased open seasons for hunters, incentivization of commercially guided hunting operations, increased use of game mammals for meat and food security, and targeted culling in overpopulated areas.

The House of Representatives of the Thirty-first Legislature of the State of Hawaii, Regular Session of 2022, the Senate concurring that the Department of Land and Natural Resources (Department) is requested to convene a task force to develop a feral ungulate management plan for west Hawaii.

The task force consists of the following members,

- (1) One member appointed by the Speaker of the House of Representatives
- (2) One member appointed by the President of the Senate.
- (3) One member appointed by the Chairperson of the Board of Land and Natural Resources.
- (4) One member appointed by the Chairperson of the Board of Agriculture
- (5) One member appointed by the Director of Transportation
- (6) One member appointed by the Mayor of the County of Hawaii.
- (7) One member appointed by the Chancellor of the University of Hawaii at Hilo.
- (8) One member appointed by the Co-Chairpersons of the Hawaii Invasive Species Council.
- (9) One member appointed by the Manager of the Big Island Invasive Species Committee
- (10) One member appointed by the Chairperson of the Hawaii County Game Management Advisory Commission.

Members of the task force must have expertise in estimating wildlife populations, knowledge of ungulate management, actions for managing roadway hazards, and preservation of biodiversity. The task force is required to select a chairperson, and task force members are to work closely with wildlife managers, watershed managers, park and reserve managers, invasive species control experts, and large landowners in West Hawaii.

Over the past six months (9) nine members have been appointed to the task force, and there have been (2) meetings held where members reviewed the current impact of feral ungulates in West Hawaii to develop recommendations for a plan.

Meeting #1

Introductions were made, and the resolution was reviewed. Members reviewed associated Hawaii Revised Statutes that pertain to owners of unbranded animals- Hawaii Revised Statutes (HRS) 142-44, Game mammals defined- HRS 183D-51, Adaptive Management Authority HRS 183D, and HRS 183D-61- permits to take wild birds, game birds, and game mammals. A trappers list was developed to be distributed as a tool for private landowners to manage ungulates. Discussions were had on private landowner fencing and where animals can easily exit onto the Daniel K. Inouye (DKI) Highway while investigating how hunting pressure may move animals across different landscapes. Past successful animal control operations by the Department's Division of Forestry and Wildlife (DOFAW) like the goat removal project conducted at Pu'uhonua O Hōnaunau National Historical Park, which removed 450 goats, were discussed to review if similar options could be available for West Hawaii. The task force requested that DOFAW provide maps showing high-density areas of goats and problematic fence lines where management can be implemented. DOFAW provided this information to the task force, which is available upon request. The task force agreed to develop an outline for the plan and assigned tasks to its members.

Meeting # 2.

Regina Serrano - County of Hawaii and Kim Kozuma of the Board of Agriculture opted to head the task force as Chair and Co-Chair. DOFAW West Hawaii presented an outline for the group of DOFAW's current management actions, research, and hunting practices that affect ungulate populations in the area. Recommendations for other partner agencies were developed and shared. DOFAW outlined its limited personnel capacity for West Hawaii and reviewed positions needed to provide management assistance. DOFAW provided an overview of draft temporary rule changes (HRS 183D-3), increasing the number of available hunting days and removing the bag limit for goats and pigs in both Puu Waawaa Forest Reserve and Puu Anahulu Game Management Area. The temporary season would increase archery hunting in Puu Waawaa from 16 days to 89 days (a 550% increase) and in Puu Anahulu from 38 days to 89 days (a 230% increase). This rule change would also increase the Puu Waawaa muzzleloader season from seven open days to 52 open days (a 740% increase) and add a 52-day muzzleloader season to Puu Anahulu (no season currently exists). Discussions continued on animal ownership and how this changes as animals move across the landscape. Maps created were reviewed to understand where fence lines need to be improved, where herbicides need to be applied, where controlled grazing areas need to be identified, and where additional hunter access points need to be created. Information was shared regarding the County of Hawaii implementing a program to loan or rent pig traps to the public. This would include proper training for those using the traps and an option for the county to remove the trapped animals if requested. Cost estimates for traps and the creation of a trap program are being explored.

The main issues in North Kona identified are:

- Public safety as goats encroach on highway corridors.
- Crop damage and forage competition with livestock producers.
- Native forest preservation/ conservation.

- Damage to cultural /archeological sites.
- Public and livestock health

Review of DOFAW management actions and future proposed actions

- Pu‘uhonua O Hōnaunau goat round-up.
- Work with ranch lessees at Puu Waawaa to change old barbed wire fencing along the highway to hog wire fencing to reduce the number of goats entering the roadway.
- Continue public hunting at Puu Waawaa and Puu Anahulu to control feral ungulate populations.
- Draft new 1020 adaptive management administrative rule changes for goats in the area to provide additional hunting opportunities. The goat population is estimated at 2,000 for the Puu Waawaa and Puu Anahulu area.
- Collect data from roadside surveys.
- Meet with PTA to increase public hunting opportunities.
- Work with Hui Aloha Kiholo on fencing projects and animal tracking studies.
- Develop a new hunter access point off DKI Highway
- Distribute a list of hunters and trappers who can assist private landowners with the removal of feral animals.

Suggested solutions with general cost analysis

- Build DOFAW personnel capacity for West Hawaii – Fund 2nd half of Waimea Forestry and Wildlife Tech .50 full-time equivalent (FTE) \$40,000, Biologist IV 2.0 FTE positions @ \$95,000 ea., Forestry and Wildlife worker 1.0 FTE \$70,000, and Hilo Forestry and Wildlife worker 1.0 FTE \$80,000.
- Extend the fence along DKI Highway to the ground from Department of Hawaiian Home Lands to Old Saddle Road junction on both sides. Price to be determined.
- PTA and the landowner should improve the fence along Highway 190 to keep animals from entering the road corridor. Price to be determined.
- Department of Transportation to control vegetation within a 10-foot buffer along all highways, eliminating foliage and reducing growth. This will keep animals from grazing along the roadside.
- All new road construction to use reflectors rather than rumble strips. Rumble strips create troughs where precipitation can be caught and stored, luring animals into the road to drink.
- Permit controlled grazing along Highway 190 and DKI Highway to keep vegetation down.

Task Force Member info:

Appointed by the Speaker of the House of Representatives – Zachary Judd

Appointed by the President of the Senate- Vacant

Appointed by the Chairperson of the Board of Land and Natural Resources- Steve Bergfeld

Appointed by the Chairperson of the Board of Agriculture- Dr. Kim Kuzuma

Appointed by the Director of Transportation- Meliss Marinda Johnson

Appointed by the Mayor of the County of Hawaii – Regina Serrano

Appointed by the Chancellor of the University of Hawaii at Hilo – Nicholas Krueger

Appointed by the Co-Chairpersons of the Hawaii Invasive Species Council – Chelsea Arnott
Appointed by the Manager of the Big Island Invasive Species Committee – Jenn
Taamariki

Appointed by the Chairperson of the Hawaii County Game Management Advisory
Commission - Alan Nakagawa

Task force coordinator – Jason Omick, Wildlife Biologist - DOFAW-Admin

Hawaii Island staff – Kanalu Sproat, Wildlife Biologist DOFAW West Hawaii / Andrea
Buskirk-Outreach Specialist

Feral Ungulate Management Plan for West Hawaii

Over the last decade, West Hawaii has seen an increased population and effects of feral goats and pigs. Goats and pigs are non-native ungulate species introduced to Hawaii. In public hunting areas, they are designated game mammals (HRS 183D-51). In all other spaces, unmarked or unbranded goats and pigs belong to the property owner or lessees of the land on which the animals are then running (HRS 142-44). Given these facts, the responsibility for these animals and the damage or threats they may present may change as they move from one property to another.

The task force is in the process of completing a draft management plan to address the issue these animals present while providing possible solutions for reducing the presence of ungulates on roadsides. The draft plan is available upon request.