



# United States Department of the Interior

## NATIONAL PARK SERVICE

Pacific West Region  
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IN REPLY REFER TO:

L7617 (PWRO-P)

NOV 23 2016


### Memorandum

To: Superintendent, Haleakala National Park

From: Regional Director, Pacific West Region

Subject: Environmental Compliance for Management and Removal  
of Feral Animals

The park's much anticipated initiative to remove feral animals from the upper elevations of the Nu'u area is approved. To complete this particular environmental compliance effort, at the time when the park announces the decision, the Errata prepared as an attachment to the Environmental Assessment should be distributed to all recipients of the original document.

 Laura E. Joss

Attachment

# FINDING OF NO SIGNIFICANT IMPACT

## Management And Removal Of Feral Animals In Upper Elevations Of Nu'U, Maui

Haleakalā National Park

November 2016

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### BACKGROUND

The National Park Service (NPS), in cooperation with the State of Hawai'i, and with funds provided by National Fish and Wildlife Foundation and the NPS, is planning to protect and restore habitat for native species in the Nu'u area, including breeding and nesting habitat for endangered 'ua'u (Hawaiian petrel, *Pterodroma sandwichensis*). Habitat protection and restoration will be accomplished through conservation activities, one of which would be the Proposed Action, management and control of feral goats (*Capra hircus*), pigs (*Sus scrofa*), dogs (*Canis lupis familiaris*), and axis deer (*Axis axis*) within 1,885 acres of the Haleakalā National Park (HNP) lands within the Nu'u fence enclosure. As stated on page 1 of the environmental assessment (EA), details and construction of the fence has been analyzed with previous compliance, including consultation under Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act, through a categorical exclusion (date of approval: 11/23/2015).

This Finding of No Significant Impact (FONSI) and the environmental assessment constitute the record of the environmental impact analysis and decision-making process. The NPS will implement the selected alternative to facilitate habitat restoration by removing feral animals that are causing habitat degradation in an area that contains habitat suitable for breeding and nesting of endangered 'ua'u. Incorporated into the project design are measures for protection of Park resources. The alternative was selected after careful review of resource impacts, agency consultation, and public comment.

This document records: the FONSI determination as required by the National Environmental Policy Act of 1969 (NEPA)-and will be available on the NPS Planning, Environment, and Public Comment (PEPC) website at <https://parkplanning.nps.gov/projectHome.cfm?projectId=55701>. In addition, the park manager has completed a determination of no impairment as required by the NPS Organic Act of 1916.

### PURPOSE AND NEED FOR FEDERAL ACTION

The purpose of federal Action is to support ecosystem recovery and long-term resource protection in a portion of the degraded lands in Nu'u, particularly for threatened and endangered species. Within Nu'u, land degradation and loss of habitat caused by the presence of feral goats (*Capra hircus*), feral pigs (*Sus scrofa*), and axis deer (*Axis axis*) are primary concerns. Ungulates trample landscapes and consume vegetation. Additionally, feral dogs (*Canis lupis familiaris*), which may be attracted to feral ungulates as prey, are also known to be present in the area. Feral dogs prey on 'ua'u adults and nests, and are a safety hazard for people entering the area. Without management and removal of feral animals within the HNP Nu'u enclosure, other conservation activities are unlikely to succeed.

Management and removal of feral animals will provide protected habitat for endangered 'ua'u, and potentially other federally listed or candidate species. Intensive feral animal control efforts are expected to occur for the first year with less intensive efforts in subsequent years. Upon completion of the project, feral animals are to be completely excluded in perpetuity.

## **SELECTED ALTERNATIVE**

Except for incorporation of the minor modification noted below, Alternative 2 as described in the EA will be implemented for complete removal of the feral animal population because it best meets the purpose and need to support ecosystem recovery and long-term resource protection in a portion of the degraded lands in Nu'u, without causing significant impacts to natural and cultural resources.

The selected alternative consists of reducing the population of feral goats, pigs, and dogs, as well as axis deer, primarily using lethal method. Comments submitted by the Humane Society of America regarding the use of lead-free ammunition were carefully considered, and Alternative 2 is modified as follows: Lead-free ammunition will be used for all non-native animal removal accomplished through the use of firearms.

While efforts will be made to avoid the use of traps and snares, these tools may be used as a last resort if there are remnant animals that cannot feasibly be removed using other methods. Successful implementation of this project will result in the elimination of all non-native animals. Leaving a few animals does not achieve the goal of protecting and restoring native resources, and would result in a larger number of animals killed in the future, after the remaining animals reproduce.

The selected alternative allows for future restoration and protection of a significant amount of acreage within the HNP Nu'u parcel. Removal of feral animals will assist NPS in meeting management goals for HNP to protect and restore breeding and nesting habitat for the endangered bird species including 'ua'u. Timely implementation supports federal, state, and other conservation efforts to protect and enhance endangered species and their habitat in the leeward Haleakalā area of Maui.

## **MITIGATION MEASURES**

As described in the EA, the following mitigation measures will be applied to the implementation of the selected action. The responsible party for all measures is the HNP Resources Management (RM) staff involved with the selected action, with specific staff members identified when necessary.

### **Water Resources**

- Lethal control of feral animals will be distributed over space and time to limit the number of carcasses present in any one area to minimize effects of decomposing carcasses on water resources, including Nu'u Salt Pond.

### **Wildland Fire**

- Due to the dry environment and the type of vegetation present, personnel will take all precautions to avoid igniting wildland fires including:
  - Vehicles will not idle, especially in tall grass.
  - LZs will be maintained to avoid possible ignition by helicopters.
  - Open campfires will not occur.

- HNP staff regularly conducts on site measurements of temperature, humidity, and wind to determine fire risk. If any of these levels are moderate or greater, NPS will restrict activity in high-fire risk areas. A Remote Access Weather Station (RAWS) would be in place to remotely measure weather and fire risk. Water tanks would be maintained and could provide a water source for suppression if needed.
- The local fire department, in coordination with NPS, will respond to and extinguish any fires.

### **Vegetation**

- HNP staff will ensure that disturbance and adverse impacts to native vegetation will be avoided.
- Transport of weeds by equipment will be minimized by following strict HNP protocols for equipment/supply sanitation.

### **Wildlife**

- HNP staff will carefully observe all wildlife while conducting feral animal control activities. If any activities appear to be adversely affecting native wildlife (evidenced by flushing, distressed behavior, or aggression), all activities will cease until a NPS wildlife biologist is consulted. Any restrictions or guidance from the biologist will be implemented. Restrictions could include delaying or modifying flight times and patterns and using firearm noise suppressing devices.

### **Special Status Species**

- HNP personnel working in the area will be required to demonstrate the ability to identify special status plants and will be trained on how to avoid adverse impacts to these species.
- Training for all project staff will include maps showing locations of any known bird nesting or roosting sites, and known rare plant populations. Shooting of feral animals will not occur around active 'ua'u burrows. Staff will avoid walking on or around 'ua'u burrows.

### **Habitat**

- Personnel tasked with working in or traversing across designated critical habitat will be trained in plant identification. Disturbance to special status species will be avoided. Avoidance measures may include restricting project activities at certain times or in certain areas. If recommended by a NPS wildlife biologist, noise-producing activities may be prohibited near breeding or nesting wildlife.
- All vehicles, equipment, clothes, and footwear will be regularly inspected and cleaned to avoid transport and establishment of introduced species.
- All project personnel will be provided with maps showing the locations of critical habitat areas. They will also be trained on how to avoid adverse impacts including erosion and disturbance to native and special status plant species.

### **Cultural and Historic Resources**

- Archaeological features will be avoided during all animal removal activities. Staff will be provided with maps depicting the locations of cultural and historic resources and buffer zones and trained in best practices for avoiding adverse impacts.

## **ALTERNATIVES CONSIDERED**

In addition to the selected alternative, a "No Action" alternative was fully analyzed in the EA. Under this alternative, no additional feral animal control efforts in HNP Nu'u parcel would occur.

Currently, the Park conducts minimal management activities in the area including sporadic and opportunistic lethal control of feral animals to prevent large population increases. These control activities would continue as needed under the No Action alternative.

## **PRELIMINARY OPTIONS CONSIDERED and DISMISSED**

Three alternative means of reducing populations of feral animals were considered and dismissed: recreational hunting, relocation of animals to another location in the park and fertility control. Hunting is not allowed in Haleakala National Park. Relocating animals to an alternate site within the park and fertility control would require capture, sedation, and transportation and would result in increased safety risks for NPS employees and/or contractors. Relocation and maintenance of non-reproductive feral animals on NPS lands would not accomplish the purpose of the Proposed Action, which is to support ecosystem recovery and long-term resource protection in Nu'u, particularly for threatened and endangered species. These alternatives were thus dismissed from further consideration.

## **WHY THE SELECTED ACTION WILL NOT HAVE A SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT**

As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria:

***Impacts that may be both beneficial and adverse. A significant effect may exist even if the agency believes that on balance the effect will be beneficial.***

Implementing the selected alternative could result in some adverse impacts; however, the overall benefit of the project, particularly in regard to resource protection, outweighs those adverse effects. The adverse environmental consequences of implementing the selected alternative are all short-term in nature and mostly negligible (when coupled with mitigation measures) with the exception of the effects on park operations. Park operations will be adversely affected over the initial one year removal period due to increased labor requirements and the high cost of helicopter operations necessary for feral animal control efforts. The beneficial effects of implementing the selected alternative are numerous. Soils, geologic resources, water resources, vegetation, wildlife, special status species, habitat and cultural and historic resources have all been subjected to long-term adverse impacts caused by the presence of feral animals. Removal of these animals would result in reduced degradation and measurable levels of recovery.

### ***Degree of effect on public health or safety.***

Implementing the selected alternative will not entail any risk to public health or safety as the Nu'u parcel of HNP is not currently open to public use and any adverse effects to water resources or air quality would be negligible.

### ***Unique characteristics of the geographic area such as proximity to historic or cultural resources, Park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.***

A survey of historic and cultural resources was conducted prior to installation of the HNP Nu'u ungulate control fence. Although the entire project area was not surveyed due to the large size and steep terrain, the survey encompassed the unimproved access road and the Nu'u base area and provided an indication of the type of cultural and historic features present as well as the areas in which they are or might be located. The highest concentrations of historic or cultural resources are found in the lower elevations from sea level up to approximately 300 ft. elevation. No animal removal efforts will be conducted in this area. Although there were a few

archeological features found on the steep upper slopes, the number of cultural and historic features decreases with an increase in elevation. Feral animal control efforts will take place above 1,250 ft. elevation and only within the HNP Nu'u enclosure fence, away from the higher concentrations of historic or cultural features. Mitigation measures to avoid adverse impacts to historic and cultural features will be followed as described in the EA and will result in a negligible effect. These measures will be implemented both within the enclosure and during project-associated activities at lower elevations.

The only wetland in close geographic proximity to the project area is Nu'u Salt Pond located downslope near the coast just above Nu'u Bay, outside of NPS boundaries. The upper slopes of Nu'u drain into this wetland. Implementation of the selected alternative will reduce erosion, and thereby sedimentation, as well as animal fecal loads in the area, resulting in long-term benefits to this wetland.

There are no designated wild and scenic rivers or wilderness areas in the Nu'u area, nor are there any prime farmlands.

The leeward slope of Haleakalā, including Nu'u, is considered an ecologically critical area. 'Ua'u nest in burrows located mostly on steep slopes. The largest known breeding colony is found at Haleakalā Crater nearby and the project area contains suitable habitat for 'ua'u to breed and nest. Additionally, the region contains designated critical habitat for three federally listed plant species and an endangered moth. Prior to the introduction of ungulates, the leeward area of Haleakalā supported diverse and robust hardwood forests and native shrublands, known as dryland forests. This type of habitat is now listed as one of the most critically endangered habitats in the world. Less than 5% of the previously existing dryland forest on the leeward slope of Haleakalā remains. Habitat degradation is mainly due to: grazing by domestic cattle; browsing and grazing by feral goats and axis deer; feeding and digging by feral pigs; and displacement of native plant species by non-native plant species. Implementation of the selected alternative will eliminate feral animals in the protected (previously fenced) portion of the HNP Nu'u parcel allowing native habitat to recover.

***Degree to which effects on the quality of the human environment are likely to be highly controversial.***

The environmental effects of the selected alternative on the quality of the human environment are not controversial. A description of the selected alternative (Proposed Action) along with a solicitation for comment was distributed to agencies, organizations, and individuals as well as being posted, and advertised as such, on both the NPS PEPC and HNP websites. The project was featured in local media including the Maui News (6/26/2016 and 7/7/2016), Maui Now (6/15/2016 and 7/6/2016) and Maui Time (6/15/2016 and 6/23/2016). The selected alternative was also presented at two public meetings held in May 2015. While NPS received no comments indicating opposition to the implementation of alternative 2 based on direct effects to the quality of the human environment, there was some concern about lethal removal of animals. These concerns were addressed in the response to comments. Direct and frequent observations of animals and animal behavior in the area by HNP staff provide reliable information on the expected outcome of the selected action.

***Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.***

No highly uncertain effects or unique or unknown risks are involved with implementation of the selected alternative. Activities similar to the Proposed Action are ongoing at several NPS units and natural areas in Hawai'i and have been ongoing at HNP for over 40 years. The selected alternative involves mitigation measures to minimize risks that are based on the experience of

HNP staff and managers, as well as subject matter experts, in implementing these types of actions.

***Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.***

The selected alternative does not establish a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration. The action described in the selected alternative is currently practiced at several NPS units and natural areas in Hawai'i and has been an ongoing practice at HNP for over 40 years. It is supported by NPS policies and with the NPS mission, and complies with all Federal laws.

***Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.***

Cumulative effects were analyzed in the EA and no significant cumulative impacts were identified. Implementation of the selected alternative in combination with other feral animal control and conservation efforts that are or will be occurring in this region will benefit native species, including threatened and endangered species, because they result in habitat improvements.

***Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.***

HNP initiated consultation with the State Historic Preservation Division (SHPD) in June 2016, which identified mitigation measures. The SHPD concurred with HNP, in a September 2016 letter, and determined the avoidance measures to be followed to avoid adverse effects due to implementation of the selected alternative. These measures are will not adversely affect districts, sites, or cause loss.

***Degree to which the action may adversely affect an endangered or threatened species or its critical habitat.***

Due to the low populations of endangered or threatened species currently present and the small amount of critical habitat remaining within the project area, implementation of the selected alternative will not adversely affect endangered or threatened species or critical habitat. Further, mitigation measures will be practiced by all persons involved with feral animal control efforts and will ensure any disturbance to endangered or threatened species or its critical habitat will be minimized and not result in significant adverse effects. Implementation of the selected alternative would result in long-term beneficial effects for endangered or threatened species and critical habitat due to expected habitat recovery and the potential for population expansion in this area.

***Whether the action threatens a violation of Federal, State, or local environmental protection law.***

The selected alternative does not violate any federal, state, or local environmental protection laws.

## **PUBLIC INVOLVEMENT AND AGENCY COORDINATION**

### **Scoping**

During April and May 2015, the NPS solicited feedback from the public, as well as governmental and non-governmental organizations. The NPS distributed information on the need for action and the proposal via a press release, a newsletter, agency/organizational letters, and the NPS

PEPC and HNP websites. Two public meetings were also held in Kula, Maui (May 13, 2016; 13 participants) and in Hana, Maui (May 14, 2016; one participant) to inform, answer questions, and collect comments. All comments received were considered during the development of the EA. Details of this scoping period, including a copy of all comments received, are presented in a Public Scoping Report (<https://parkplanning.nps.gov/projectHome.cfm?projectId=55701>).

### **Environmental Assessment Review**

The *Management and Removal of Feral Animals in Upper Elevations of Nu'u, Maui Environmental Assessment* (EA) was released for public review on June 14, 2016. A formal 30-day comment period was extended by two weeks, and closed on July 29, 2016. The EA (34 digital or printed copies) was circulated to local, state, and federal agencies, Makawao and Hana public libraries, interested organizations, and individuals to allow review and comment on the document. Publication of the EA on the National Park Service Planning, Environment and Public Comment (PEPC) website (<http://parkplanning.nps.gov/>) marked the beginning of the public comment period during which 49 individual pieces of correspondence were received, 43 of which were from private organizations or individuals.

Of the commenters, 17 explicitly expressed support for the Proposed Action. Six of these were from organizations representing the opinion of multiple people. Two organizations that expressed support for the proposed project, the East Maui Watershed Partnership and the Maui Conservation Alliance, are comprised of a number of government, private, and non-profit entities working in cooperation. The other four organizations expressing support for the proposed action were: the Maui Invasive Species Committee, Friends of Haleakalā National Park, Aha Moku O Kaupo, and the American Bird Conservancy.

Responses to comments received are provided in an Errata prepared as an attachment to the EA.

### **Agency Consultation**

#### ***Hawai'i State Historic Preservation Division (SHPD)***

Compliance with Section 106 of the National Historic Preservation Act (NHPA) included Hawai'i SHPD. NPS initiated formal Section 106 consultation with Hawai'i SHPD in a letter received by the SHPD on June 27, 2016. In accordance with Section 106 of the NHPA, NPS provided SHPD an opportunity to comment on the effects of this project with regard to historic properties and a "no adverse effect" determination. In a letter dated September 26, 2016, the SHPD concluded, "...the SHPO concurs with the revised APE and NPS's determination of no adverse effect provided the above stipulations (1-3) are met. Pursuant to HRS §6E-8 and Hawaii Administrative Rules (HAR) §13-275, the SHPD's project effect determination is no historic properties affected." The stipulations are included in the mitigation section of the project's Finding of No Significant Impact.

#### ***U.S. Fish and Wildlife Service (USFWS)***

In accordance with the Endangered Species Act (ESA), NPS contacted USFWS by letter on April 17, 2015 to solicit input on threatened and endangered species concerns for the proposed project. A Biological Assessment was submitted for review to USFWS on May 12, 2015. On June 9, 2015 USFWS informed NPS that, based upon review of the Biological Assessment, including the action area and the conservation activities planned for alternative 2 further consultation under Section 7 of the Endangered Species Act was not required. The existing Biological Opinion (*Biological Opinion and Informal Consultation for the Operation and Management of the Haleakalā National Park, Island of Maui*, USFWS 2012), and the avoidance and minimization measures specified within the 2012 document will be applied to the implementation of the approved project.



## CONCLUSION

Based on the conservation planning and environmental impact analysis documented in the EA, with due consideration of the nature of the public comments and consultations with other agencies, and given the capability of the mitigation measures to avoid, reduce, or eliminate impacts, the NPS has determined that the selected alternative does not constitute a federal action that normally requires preparation of an EIS. Adverse environmental impacts that could occur are localized and limited in context. The selected alternative will not have significant effect on the quality of the human environment or the park's cultural or natural resources

There are no unmitigated adverse impacts on public safety, sites or districts either listed in or eligible to be listed in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

Based on the forgoing, it has been determined that an EIS will not be prepared and the selected alternative may be implemented as soon as practicable.

Recommended:

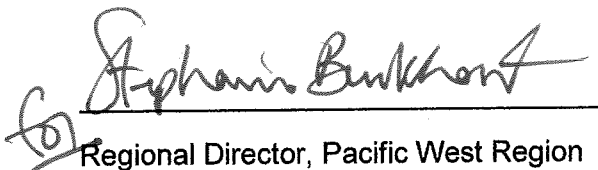
For



Superintendent, Haleakalā National Park

11/8/16  
Date

Approved:

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Regional Director, Pacific West Region

11/23/16  
Date