Study Title: Operational monitoring of a rat eradication on Lehua Island (Kaua'i, Hawai'i, August 2017)

NWRC Study Director: Shane R. Siers

Approved NWRC Project: Methods and strategies to manage invasive species impacts to agriculture, natural resources, and human health and safety

	SIGNATURE	DATE
NWRC Study Director:	SHANE SIERS 2017.07.27 08:23:03 -10'00'	26 JUL 17

Study Director's position (check one):
- ☒ Project Leader
- ☐ Research Scientist (non-project leader)
- ☐ Biologist/Chemist/Technician
- ☐ Student: NWRC Representative/Contact: _____
- ☐ Visiting Scientist: NWRC Representative/Contact: _____

	SIGNATURE	DATE
Concur: **NWRC Research Project Leader:**	SHANE SIERS 2017.07.27 08:23:30 -10'00'	26 JUL 17
QAU Review and Processing: **NWRC Quality Assurance:**		7/27/17
Concur: Acting **NWRC Assistant Director:**		7/28/17
Approved: **NWRC Director:**		7/31/17

REGULATORY CONSIDERATIONS

Analytical Chemistry
Will chemical analysis be required of the NWRC Chemistry Lab Unit?
☒ No ☐ Yes – **Attach the Analytical Chemistry Appendix.**

Will the services of the NWRC Formulation Scientist be needed?
☒ No ☐ Yes – **Attach the Formulation Support Appendix.**

Animal Use
Will the study include the use of animals?
☒ No ☐ Yes – check all that apply below.
- ☐ Live animals will be used at an NWRC facility. **Attach the Animal Use Appendix.**
- ☐ Handling animals or manipulating the behavior of wildlife in the field. **Attach the Animal Use Appendix.**
- ☐ Collaborating institution is responsible for all or part of live animal phase. **Attach the collaborating institution's protocol and IACUC approval.**
- ☐ Study will be conducted using privately owned animals. **Attach "Consent for the Use of Privately Owned Animals" form (SOP AD025).**
- ☐ No manipulation of the behavior of wildlife in the field (observation only). **No appendix needed.**
- ☐ Samples or data opportunistically collected from ongoing operational activities. **No appendix needed.**

Biological Laboratories (BioLabs) Support
Do you anticipate you will require space, equipment, or personnel from the NWRC Biological Laboratories Unit?
☒ No ☐ Yes – **Date of consult with Laboratory Specialist:** Click here to enter text

Microbiological/Biohazardous Materials
Will any Microbiological/Biohazardous Materials be used?
☒ No ☐ Yes – **Attach the Microbiological/Biohazardous Materials Use Appendix.**

Intellectual Property (IP) Considerations
Do any of these situations apply to this study?
- The condition of confidentiality between you and your collaborator would facilitate open discussions and collaboration.
- This research involves the exchange or transfer of material(s) between the NWRC and your collaborators.
- This research includes existing IP and/or could lead to the development of new IP.

☒ No ☐ Yes – Consult the NWRC Technology Transfer Coordinator. **Date of consult:** Click here to enter text

Federal Environmental Statute Considerations
Will this activity involve a field component and meets any of the following conditions?
The field component will occur on Federal land, is funded with Federal money, and/or involves Federal personnel.
☐ No ☒ Yes
- Complete and **Attach the Endangered Species Act Appendix (ESA)** and
- Complete and attach the **National Environmental Policy Act Appendix (NEPA).**

Regulated Product Registration Considerations
Does this activity involve the transfer OR testing of any pesticide, vaccine, drug, diagnostic kit, or pest control or medical device, or their components, including products still in the research and development stage?
☒ No ☐ Yes - Consult with the NWRC Registration Manager regarding any regulatory requirements.

As determined during this consultation, check the applicable regulatory standards.
☐ none ☐ EPA GLP ☐ FDA CVM GLP ☐ USDA CVB GLP-like ☐ OECD GLP
☐ other: Click here to enter text

DESCRIPTION OF ACTIVITIES

NWRC Collaborators:

Name	NWRC Project	Contribution to study
Shane R. Siers	Island Invasives, Hawaii Field Station	Study director, independent monitor

Non-NWRC Collaborators:

Name	Affiliation	Contribution to study
Patricia Baiao	Island Conservation	Implementation manager
Gregg Howald	Island Conservation	Implementation supervisor

Study location(s):

Name	Address	Activities at this location
Niihau Island	Kaua'i, Hawai'i	Observe baiting operations

Funding Source:

Source of Funds	APHIS Program	Name of Non-APHIS Collaborator	$ Amount
Internal (NWRC)	Hawaii Field Station		$8,000 (Salary)
External APHIS			
Non-APHIS Collaborators		Island Conservation	$1,800 (Expenses)

Study Schedule:

Proposed start date: 1 August 2017

Proposed end date: 15 September 2017

Proposed archive date: 30 March 2018

Background/Justification:

Lehua Island is a 115 hectare island located 1.2 km off the northern shore of Ni'ihau (a privately owned, 18,650 hectare island). Lehua is a state-designated seabird sanctuary managed by the Hawai'i Department of Land and Natural Resources (DLNR) and federally owned by the U.S. Coast Guard (USCG). Lehua is one of Hawai'i's most important seabird colonies because of its size and height above sea level. It also offers an opportunity for restoring an island ecosystem in the main Hawaiian Islands.

DLNR-Division of Forestry and Wildlife (DOFAW), in conjunction with federal sponsors U.S. Fish and Wildlife Service (USFWS), technical partner Island Conservation (IC), and the cooperating members of the Lehua Island Restoration Steering Committee (LIRSC) are proposing to eradicate rats from Lehua Island so restoration efforts can move forward in the future.

The purpose of the proposed action would be to eradicate non-native rats from Lehua and maintain its rodent-free status, which would facilitate the restoration of the natural island ecosystem. The proposed action could improve seabird nesting habitat and could aid in the recovery of rare endemic seabirds such as band-rumped storm petrels, Hawaiian petrels, and Newell's shearwaters, and native coastal plants, and insects. The proposed action would not be anticipated to have any significant negative environmental effects; the State of Hawaii and the US Fish and Wildlife Service have each completed Environmental Assessments (EAs) and issued Findings of No Significant Impact (FONSIs) for the proposed action.

The proposed action involves the aerial broadcast of bait pellets containing rodenticide into all potential rat territories on Lehua Island. Rat eradication would occur in the summer dry season to maximize the probability of success by targeting the rats when food resources are lowest and rat abundance is declining. Conducting the operation during this period

would also minimize the risk of rain washing rodenticide pellets into the ocean. The plan includes aerial broadcast of rodenticide bait pellets containing 50 ppm diphacinone, with potential to use 25 ppm brodifacoum as a backup the following year, if the diphacinone application failed to eradicate the rat population. The proposed action is modeled on successful island rat eradication efforts worldwide.

Island Conservation, as the implementation partner, has requested that USDA provide an independent observer to monitor the bait application activities from the staging area on Niihau, to validate that the implementation plan was adhered to and to document decisions and actions that deviate from that plan.

Research Objective/Hypothesis:
In response to this request, under this protocol, the study director will attend the eradication operation staging area (Niihau Island) during all of the three planned treatment dates, tentatively between 7 and 30 August. The study director will maintain a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing such.

There are no animal welfare requirements for the USDA NWRC role in the monitoring of these operational (non-research) activities; they will occur with or without said monitoring. All such requirements are borne by the State of Hawaii and the US Fish and Wildlife Service as detailed under their respective EAs and FONSIs.

Operational monitoring will include no animal use.

Study Procedures or Scientific Input:
(check one option below)

☒ The NWRC scientist's involvement is limited only to providing expertise (subject matter, design, analysis, genetics, laboratory support). Provide a brief description of the scientist's activities.

The study director will maintain a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing such.

☐ The NWRC scientist will be an active participant in the study and the activities are described in the collaborating institution's protocol. Either attach the collaborating institution's protocol (if available) or provide a brief description of the scientist's role and study procedures.

- ☐ Collaborating institution's regulatory documentation is attached
- ☐ Description of scientist's role and study procedures

☐ The NWRC scientist's activities are not covered under the collaborating institution's protocol or this protocol is for an NWRC training exercise. Describe all NWRC activities (e.g. methods, procedures, experimental design, statistical analysis and human health and safety considerations).

Human Health and Safety Risk/Hazard Assessment:
There are no inherent human health and safety risks associated with observation of these activities

Cost Estimate for Each Fiscal Year:

	FY-17	FY-XX	FY-XX	FY-XX
A. Salary and Benefits	$8,000			
B. Facilities (in addition to existing facility or space costs)				
C. Equipment				
D. Supplies				
E. Animal Care Costs				

F. Operating Costs (travel, misc. services, etc.)	$1,800			
TOTAL	$9,800			

Archiving:
The protocol, amendments, raw data, documentation, records, specimens, correspondence and other documents relating to interpretation and evaluation of data, and final reports generated as a result of this study will be retained in the archives of the National Wildlife Research Center at Fort Collins, Colorado.

Protocol Amendments:
Any changes in this protocol will be documented using the Protocol Amendment form, reviewed by the appropriate personnel, signed and dated. Approved amendments will be distributed to all study participants as appropriate.

Other Pertinent Attachments: (list in order of appearance)

- ESA Appendix
- NEPA Appendix

ENDANGERED SPECIES ACT (ESA) APPENDIX

All activities or programs that are authorized, funded, or carried out, in whole or in part, by federal agencies in the U.S. or upon the high seas are regulated under the ESA. This includes research activities authorized, funded, or conducted by federal agencies and employees.

Before any field activity can take place you must assess the potential effects the proposed action could have on species, populations, or critical habitat protected under the ESA, and then make "effects determinations". Finally, you must maintain an administrative record (i.e., documentation of the evaluation) for the field activity under the ESA.

This appendix will help you document your effects determinations for this action, and determine whether further consultation with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) is required under section 7 of the ESA.

This appendix does not cover regulatory requirements for state listed species. You must determine those by contacting the State agency responsible for wildlife management.

Links to USFWS/NMFS Resources on Effects Determinations

Effects Determination Guidance (NMFS)
Effects Determination Step-by-Step Instructions (USFWS)
USFWS Consultation Handbook

Effects Determinations Instructions and Decision Tool

1. Is another federal agency taking care of the section 7 responsibilities under ESA for this field activity?
   - ☐ Yes Go to #5, check the box, and follow the instructions.
   - ☒ No Go to #2.

   Island Conservation, as the implementation partner, has requested that USDA provide an independent observer to monitor the bait application activities from the staging area on Niihau, to validate that the implementation plan was adhered to and to document decisions and actions that deviate from that plan.

   In response to this request, under this protocol, the study director will attend the eradication operation staging area (Niihau Island) during all of the three planned treatment dates, tentatively between 7 and 30 August.

   The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing such.

2. **Read all of the instructions under I, II, and III below in order to answer this question!**

   I. Determine the action area, which includes the area where the field activity will actually occur and all areas that reasonably could be directly or indirectly affected by the field activity immediately or in the future.

   II. Go to: USFWS IPaC online planning tool (Hold Ctrl + Click on blue link), click and follow the instructions to map you action area determined in Step I. Then request an "official species list" under "Regulatory Documents" (instructional video; Hold Ctrl + Click on blue link). The official species list will be emailed to you. This official species list will include all species, experimental populations, and critical habitat protected under the ESA that occur in your action area.

Note: Only consider resources protected under the ESA for this appendix (e.g., do not include species protected under the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act).

III. Based on the results from Step II, do any threatened, endangered, or proposed species (animals and plants), experimental populations, or designated or proposed critical habitat protected under the ESA occur in your action area?

☒ Yes Then go to #3.

☐ No Go to #6, check the box, and follow the instructions.

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3. **Read all of the instructions under I, II, and III below in order to properly fill out the table below.**

I. Assess all potential effects of the proposed action **on each** protected species, experimental population, or critical habitat that occurs in your action area by doing the following:

a. Identify all potential stressors resulting from the action to one or more individuals of the species and/or to "primary constituent elements" of the species' habitat; and
   - *Primary constituent elements include: 1) space for individual and population growth, and for normal behavior, 2) food, water, air, light, minerals, or other nutritional or physiological requirements, 3) cover or shelter, 4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal, and 5) habitats that are protected from disturbance or are representative of the historic geographic and ecological distributions of a species.*

b. Evaluate all potential pathways in which one or more individuals of the species and/or primary constituent elements of the species' habitat could be exposed to those stressors, including the potential intensity, frequency, and duration of the exposure.

When doing this, you must consider all of the following types of potential effects:

- Direct effects: Changes that occur during implementation of the action.
- Indirect effects: Changes that occur after implementation of the action (at any point in time).
- Interrelated effects: Changes that are the result of a larger action and depend on the larger action for their justification.
- Interdependent effects: Changes that are the result of other actions that would not occur without the action under consideration.
- Cumulative effects: Changes that are the impact of future activities (federal, state, and private) that are reasonably certain to occur after the action has occurred.

II. Then:

A) For the following ESA protection status classifications:

- **Threatened species**
- **Endangered species**
- **Designated critical habitat**
- **Essential experimental population**
- **Non-essential experimental population (inside of a National Park or National Wildlife Refuge)**

a) Determine whether those potential effects are:
   - Zero: No potential for exposure to a stressor.
   - Beneficial: Effects are immediate and wholly positive.
   - Insignificant: Effects relate to the size of the impact and should never reach the scale where "take" occurs. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects.

- *Take includes intentional or incidental harassment, trapping, capture, injury, or death, or otherwise changing the behavior of an individual of a protected species in a way that negatively impacts their fitness, reproduction, or survival, or damaging or altering designated critical habitat.*

- Discountable: Based on best judgment, a person would not expect these effects to occur, because they are extremely unlikely (this must be justified).
- Adverse: All other effects are adverse effects. Take must be considered an adverse effect.

b) Identify potential mitigation or conservation measures that can be taken to potentially reduce an adverse effect to an insignificant or discountable effect.
Note: A mitigation measure cannot reduce an insignificant, discountable, or adverse effect to zero effect.

c) Make the appropriate effect determination for the species, experimental population, or critical habitat:
- **No effect (NE)**: The proposed action will have no impact, because there is zero potential for exposure to a stressor resulting from the proposed action (e.g., the species uses completely different habitat units than those directly or indirectly impacted by the action, or is seasonally absent and primary constituent elements of its habitat will not be affected).
  - *Any potential beneficial, insignificant, discountable, or adverse effects of the action means you cannot make an NE determination, even when the potential effects are improbable.*
  - *You also cannot mitigate to an NE determination, but you can move the location of your field activity to another site where the species or critical habitat will have zero exposure to a stressor resulting from the action and then make an NE determination.*
- **May affect, but not likely to adversely affect (NLAA)**: Only applies if the potential effects of the proposed action are wholly beneficial, insignificant, or discountable.
  - *Any potential take resulting from the action means you cannot make an NLTAA determination, even when the take is improbable.*
- **May affect, and is likely to adversely affect (LAA)**: Applies if the proposed action has the potential to cause adverse effects.
  - *You can potentially mitigate to reduce an LAA to an NLAA determination.*

Or:

B) For the following ESA protection status classifications:
- **Proposed species**
- **Proposed critical habitat**
- **Non-essential experimental population (outside of a National Park or National Wildlife Refuge)**

a) Determine whether those potential effects will:
- **Not likely to jeopardize/adversely modify**:
  A) The proposed action is not likely to reduce the reproduction, numbers, or distribution of the proposed species or the non-essential experimental population in a way that would reasonably be expected to directly or indirectly reduce appreciably the likelihood of both the survival and recovery of that species; or
  B) The proposed action is not likely to adversely modify the proposed critical habitat.
- **Likely to jeopardize/adversely modify**:
  A) The proposed action could reasonably be expected to directly or indirectly appreciably reduce the likelihood of both the survival and recovery of the proposed species or the non-essential experimental population by reducing reproduction, numbers, or the distribution of that species; or
  B) The proposed action is likely to adversely modify the proposed critical habitat.

III. Finally, **for each ESA-protected resource** record in the table below: **a)** the name, **b)** the protection status, **c)** the appropriate effect determination, and **d)** an explanation/rationale/justification for the effect determination for each species (including mitigation measures, if applicable), experimental population, or critical habitat in your action area.

Archive all supporting documentation (e.g., USFWS informational resources, peer-reviewed publications, survey data). Once you have completed the table, go to #4.

a. Name of species/experimental population/critical habitat:
Hawaiian monk seal *Neomonachus schauinslandi*

Select the species' ESA protection status and your effect determination below (complete only one column of this section)

b. ESA protection status:
☐ Threatened species
☒ Endangered species
☐ Designated critical habitat
☐ Experimental population (check which one applies below):
  ☐ Essential
  ☐ Non-essential, inside a National Park or Refuge

c. Effect determination
☒ NE *(Note: you cannot mitigate to an NE)*
☐ NLAA *(check all that apply below)*
  All potential effects are either:
  ☐ Beneficial Effects
  ☐ Insignificant Effects
  ☐ Discountable Effects
☐ LAA

b. ESA protection status:
☐ Proposed species
☐ Proposed critical habitat
☐ Experimental population
  ☐ Non-essential, outside of a National Park or Refuge

c. Effect determination:
☐ Not likely to jeopardize/adversely modify
☐ Likely to jeopardize/adversely modify

d. Explanation/rationale/justification for effect determination, including mitigation measures, if applicable:

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing activities. There would be no effect to listed species or their habitat during this action since there will be no habitat disturbance or direct effects from the actions proposed in this protocol.

a. Name of species/experimental population/critical habitat:
Green sea turtle *Chelonia mydas*

Select the species' ESA protection status and your effect determination below (complete only one column of this section)

b. ESA protection status:
☒ Threatened species
☐ Endangered species
☐ Designated critical habitat
☐ Experimental population (check which one applies below):
☐ Essential
☐ Non-essential, inside a National Park or Refuge

c. Effect determination
☒ NE *(Note: you cannot mitigate to an NE)*
☐ NLAA *(check all that apply below)*
All potential effects are either:
☐ Beneficial Effects
☐ Insignificant Effects
☐ Discountable Effects
☐ LAA

b. ESA protection status:
☐ Proposed species
☐ Proposed critical habitat
☐ Experimental population
☐ Non-essential, outside of a National Park or Refuge

c. Effect determination:
☐ Not likely to jeopardize/adversely modify
☐ Likely to jeopardize/adversely modify

d. Explanation/rationale/justification for effect determination, including mitigation measures, if applicable:

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing activities. There would be no effect to listed species or their habitat during this action since there will be no habitat disturbance or direct effects from the actions proposed in this protocol.

a. Name of species/experimental population/critical habitat:

Newell's Shearwater Puffinus auricularis newelli

Select the species' ESA protection status and your effect determination below (complete only one column of this section)

b. ESA protection status:
☒ Threatened species
☐ Endangered species
☐ Designated critical habitat
☐ Experimental population (check which one applies below):
☐ Essential
☐ Non-essential, inside a National Park or Refuge

c. Effect determination
☒ NE *(Note: you cannot mitigate to an NE)*
☐ NLAA *(check all that apply below)*
All potential effects are either:
☐ Beneficial Effects
☐ Insignificant Effects
☐ Discountable Effects
☐ LAA

b. ESA protection status:
☐ Proposed species
☐ Proposed critical habitat
☐ Experimental population
☐ Non-essential, outside of a National Park or Refuge

c. Effect determination:
☐ Not likely to jeopardize/adversely modify
☐ Likely to jeopardize/adversely modify

d. Explanation/rationale/justification for effect determination, including mitigation measures, if applicable:

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing activities. There would be no effect to listed species or their habitat during this action since there will be no habitat disturbance or direct effects from the actions proposed in this protocol.

a. Name of species/experimental population/critical habitat:
Hawaiian Petrel *Pterodroma sandwichensis*

Select the species' ESA protection status and your effect determination below (complete only one column of this section)

b. ESA protection status:
☐ Threatened species
☒ Endangered species
☐ Designated critical habitat
☐ Experimental population (check which one applies below):
  ☐ Essential
  ☐ Non-essential, inside a National Park or Refuge

c. Effect determination
☒ NE *(Note: you cannot mitigate to an NE)*
☐ NLAA *(check all that apply below)*
  All potential effects are either:
  ☐ Beneficial Effects
  ☐ Insignificant Effects
  ☐ Discountable Effects
☐ LAA

b. ESA protection status:
☐ Proposed species
☐ Proposed critical habitat
☐ Experimental population
  ☐ Non-essential, outside of a National Park or Refuge

c. Effect determination:
☐ Not likely to jeopardize/adversely modify
☐ Likely to jeopardize/adversely modify

d. Explanation/rationale/justification for effect determination, including mitigation measures, if applicable:
The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing activities. There would be no effect to listed species or their habitat during this action since there will be no habitat disturbance or direct effects from the actions proposed in this protocol.

a. Name of species/experimental population/critical habitat:
Band-rumped Storm-petrel *(Oceanodroma castro*

Select the species' ESA protection status and your effect determination below (complete only one column of this section)

b. ESA protection status:
☐ Threatened species
☒ Endangered species
☐ Designated critical habitat
☐ Experimental population (check which one applies below):
  ☐ Essential
  ☐ Non-essential, inside a National Park or Refuge

c. Effect determination
☒ NE *(Note: you cannot mitigate to an NE)*
☐ NLAA *(check all that apply below)*
  All potential effects are either:
  ☐ Beneficial Effects
  ☐ Insignificant Effects
  ☐ Discountable Effects
☐ LAA

b. ESA protection status:
☐ Proposed species
☐ Proposed critical habitat
☐ Experimental population
  ☐ Non-essential, outside of a National Park or Refuge

c. Effect determination:
☐ Not likely to jeopardize/adversely modify
☐ Likely to jeopardize/adversely modify

d. Explanation/rationale/justification for effect determination, including mitigation measures, if applicable:

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing activities. There would be no effect to listed species or their habitat during this action since there will be no habitat disturbance or direct effects from the actions proposed in this protocol.

Note: To add species, experimental populations, or critical habitat: 1) click anywhere in the table cells above, and then 2) click the "+" in the bottom right corner of the cells selected.

4. Once you have completed the table above, select the appropriate option below:
☒ All species, experimental populations, and critical habitat effect determinations are NE or "Not likely to jeopardize/adversely modify". Go to #6, check the box, and follow the instructions.
☐ One or more species, experimental populations, or critical habitat effect determinations are NLAA, and none of the determinations are LAA or "Likely to jeopardize/adversely modify". Go to #7, check the box, and follow the instructions.
☐ One or more species or critical habitat effect determinations are LAA or "Likely to jeopardize/adversely modify". Go to #8, check the box, and follow the instructions.

ESA Appendix Conclusion

5. ☐ Another federal agency is fulfilling the section 7 responsibilities for this proposed action.

Click here and cite document

- Do not conduct the requested field activities until no effect determinations have been made by the other agency or consultation/conference with USFWS/NMFS is complete. You must be informed of and follow the requirements of the consultation/conference.
- **You are finished with the ESA Appendix and your responsibilities under the ESA unless an additional species or critical habitat is protected under the ESA in the action area during the action or if the action area expands.**

6. ☒ A **no effect** or **not likely to jeopardize/adversely modify** determination is made for all species, experimental populations, and critical habitat protected under the ESA for the proposed action.
- Save and archive your official species list and any other information used to reach this conclusion.
- **You are finished with the ESA Appendix and your responsibilities under the ESA unless an additional species or critical habitat is protected under the ESA in the action area during the action or if the action area expands.**

7. ☐ The proposed action is **may affect, but is not likely to adversely affect** one or more species, experimental populations, or critical habitat protected under the ESA within the action area.
- The NWRC NEPA contact will initiate the informal consultation process with USFWS/NMFS Ecological Services. **Written concurrence from USFWS/NMFS Ecological Services on the NLAA determination(s) is required before the action may be undertaken, or before an irreversible or irretrievable federal commitment to the action is made.** Correspondence from USFWS Refuge personnel will not suffice. This process usually takes at least 1 month.

- Save and archive all documents and correspondence, including the official species list and concurrence letter from USFWS/NMFS.
- **You are finished with the ESA Appendix, but not with your responsibilities under the ESA.**

8. ☒ The proposed action **may affect, and is likely to adversely affect** or one or more species, experimental populations, or critical habitat within the action area, and/or is **likely to jeopardize** the continued existence of proposed species or experimental populations, and/or is **likely to adversely modify** proposed critical habitat.
   - Contact the NWRC NEPA contact to initiate a formal consultation and conference process with USFWS/NMFS Ecological Services. **The formal consultation must be concluded before the action may be undertaken, or before an irreversible or irretrievable federal commitment to the action is made.** This process takes a minimum of 6 months.
   - Save and archive all documents and correspondence, including the official species list, the Biological Assessment, Section 10 permits (if applicable), and the Biological Opinion from USFWS/NMFS.
   - **You are finished with the ESA Appendix, but not with your responsibilities under the ESA.**

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) APPENDIX

This appendix is intended to aid the Study Director with determining whether a proposed project qualifies for a categorical exclusion as allowed by the USDA APHIS Implementing Regulations (7 CFR, part 372). Categorical exclusions are classes of federal actions that do not individually or cumulatively have a significant effect on the human environment.

- **Complete the Endangered Species Act (ESA) Appendix prior to completing this appendix.**
- **This appendix does not cover regulatory requirements for States. You must determine those by contacting the appropriate State agency.**

A. Is another agency completing the NEPA and ESA requirements for the proposed action, and do they adequately address all proposed NWRC activities?

☒ Yes – Please contact the NWRC NEPA Contact to determine the appropriate level of documentation. (A copy of the document must be included when your study is archived).

The USFWS has prepared an Environmental Assessment (EA) and issued a Finding of No Significant Impact (FONSI) for the proposed eradication project. The NWRC is listed as a cooperator on the EA and our sampling and monitoring actions are described in Appendix E of the EA and in further detail within this protocol, that includes observing and recording information related to the applications. NWRC has evaluated the effects of the proposed monitoring activities and has determined that a Categorical Exclusion (CatEx) is appropriate. NWRC is also evaluating the effects of the proposed activities described in the protocol and summarized below.

Island Conservation, as the implementation partner, has requested that USDA provide an independent observer to monitor the bait application activities from the staging area on Niihau, to validate that the implementation plan was adhered to and to document decisions and actions that deviate from that plan.

In response to this request, under this protocol, the study director will attend the eradication operation staging area (Niihau Island) during all of the three planned treatment dates, tentatively between 7 and 30 August.

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and prepare a final report summarizing such.

References:
- Final Environmental Assessment Lehua Island Ecosystem Restoration Project – July 2017
- Finding of No Significant Impact for the Proposed Lehua Island Ecosystem Restoration Project By The U.S. Fish and Wildlife Service Kauai County, Hawaii – signed July 6, 2017

☐ No – Continue to question B.

B. What was your conclusion in the ESA Appendix?

☐ The proposed action will require a formal consultation with USFWS or the National Marine Fisheries Service (NMFS) – This study does not qualify for a Categorical Exclusion, and an EA or EIS should be prepared before initiation of the project. You are done with this appendix. Contact the NEPA Coordinator for assistance.

☐ The proposed action will require an informal consultation with USFWS or NMFS – This study may qualify for a Categorical Exclusion if you determined that the proposed action may affect, but is not likely to adversely affect all listed species, experimental populations, or critical habitats **AND** USFWS or NMFS concurs in writing. – Continue to question C.

☒ No consultation (formal or informal) with USFWS or NMFS is required under the ESA – Continue to question C.

C. Do any agency actions classified as undertakings under the National Historical Preservation Act (NHPA) result in adverse effects to historic properties within the area of potential effects (http://www.achp.gov/flowexplain.html).

Undertakings are projects, activities or programs either funded, permitted, licensed or approved by a Federal Agency. Undertakings may take place either on or off federally controlled property and include new and continuing projects, activities, or programs and any of their elements not previously considered under Section 106 of the NHPA.

Adverse Effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the Register. Examples of adverse effects include physical destruction or damage; alteration not consistent with the Secretary of the Interior's *Standards*; relocation of a property; change of use or physical features of a property's setting; visual, atmospheric, or audible intrusions; neglect resulting in deterioration; or transfer, lease, or sale of a property out of Federal ownership or control without adequate protections.

Use one of the following links to determine if historical properties fall within the proposed action area:

a. https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466 (Useful for smaller geographic areas)
b. http://nepassisttool.epa.gov/nepassist/entry.aspx (Useful for larger geographic areas)

☐ Yes – Contact the State Historic Preservation Office (SHPO) for consultation (http://ncshpo.org/shpodirectory.shtml). This study may not qualify for a Categorical Exclusion and an EA or EIS may need to be prepared before initiation of the project if there are concerns from the SHPO. (A copy of the letter to the SHPO and any other information regarding the consultation must be included when your study is archived). – Continue to question D.

☒ No – Continue to question D.

D. Do any agency actions occur on tribal lands or ceded tribal lands? Use the following link to determine if tribal lands fall within the proposed action area:

a. http://www.arcgis.com/home/webmap/viewer.html?webmap=2a19e6ffe6934e09aaa0fa82f1bc0148

☐ Yes – Contact the WS State Director and WS tribal liaison to determine if there is a need for formal consultation on the program/study. This study may not qualify for a Categorical Exclusion and an EA or EIS may need to be prepared before initiation of the project if there are any tribal concerns. (A copy of the tribal letter must be included when your study is archived). – Continue to question E.

☒ No – Continue to question E.

E. Is the study a routine measures activity, such as identification, surveying, testing, removals, control, and sampling that will not cause physical alteration of the environment?

☒ Yes – You must be able to check all the below boxes and provide justification (if you are unable to check all the boxes, you must check "No") - Continue to question F.

☒ 1. Be localized or contained in areas where people are not likely to be exposed, and is limited in terms of quantity

☒ 2. Does not cause contaminants to enter water bodies (this includes runoff, drift or volatilization)

☒ 3. Does not cause bioaccumulation (the accumulation of a toxicant at a rate faster than it can be metabolized or excreted from an organism. In aquatic systems the bioconcentration factor (BCF) can be used to

determine the potential for bioaccumulation. The octanol water partition coefficient (Kow) can also be used to determine the potential for bioaccumulation in aquatic and terrestrial organisms).

☒ 4. No extraordinary circumstances identified (adverse effects to environmentally sensitive areas or resources, or public controversy over the environmental effects of the proposed action)

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and preparing a final report summarizing activities. The study director will not be involved in the application of any pesticides or other chemicals.

☐ No – Based on the information provided above this study does not qualify for a Categorical Exclusion and an EA or EIS should be prepared before initiation of the project. You are done with this appendix. Contact the NEPA Coordinator for assistance.

F. Summarize the risk to each group in the below with consideration of effects and the potential for exposure individually, and in relation to other impacts that may occur in the study area. Provide a justification for each endpoint and check the appropriate box below.

Cumulative impacts are impacts on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal of non-Federal) or person undertakes such other actions. Cumulative impacts can result in individually minor but collectively significant actions taking place over a period of time.

1. Risk to human health
2. Risk to target species
3. Risk to non-target species

There is no risk to human health or non-target species.

The study director's activities will be limited to maintaining a log of all actions, incidents, discussions, and decisions that occurred during the implementation of the aerial rodenticide applications, and preparing a final report summarizing activities. The study director will not be involved in the application of any pesticides or other chemicals.

Does this activity pose a risk to human health or target and non-target species (including cumulative impacts) that will not be minimized or mitigated?

☐ Yes – Based on the information provided above this study does not qualify for a Categorical Exclusion and an EA or EIS should be prepared before initiation of the project. You are done with this appendix. Contact the NEPA Coordinator for assistance.

☒ No – Continue to question G.

G. Will this study have a disproportionate adverse effect to children, minorities and low income populations? (Use the information under letter F (Risk to human health) and the location of the proposed study (i.e., potential for exposure) to discuss whether there would be any disproportionate impacts to children, minorities, and low income populations).

No people live on Lehua Island and the activities of the study director will be limited to collecting information about the applications and preparing a summary report. .

☐ Yes – Based on the information provided above this study does not qualify for a Categorical Exclusion and an EA or EIS should be prepared before initiation of the project. You are done with this appendix. Contact the NEPA Coordinator for assistance.

☒ No – The study meets the criteria for Categorical Exclusion - No further action is needed for NEPA.