

**Department of Land and Natural Resources  
Division of Forestry and Wildlife**

1151 Punchbowl St., Room 325; Honolulu, HI96813

(808) 587-0063, (808) 587-0064 (Fax)

**Application for NARS Special Use Permit**



**Name:** Douglas G. Myers

**Title of Proposed Activity:** 'Alalā Reintroduction Project (permit renewal application)

**The following activities require a Special Use Permit under HAR §13-209-5. If your work in the Natural Area Reserve (NAR) will involve one or more of the following, please indicate with an 'X' below:**

- ☒ remove, injure, or kill any form of plant or animal life, except game mammals and birds hunted according to department rules\*
- ☐ introduce any form of plant or animal life\*
- ☐ remove, damage, or disturb any geological or paleontological features or substances\*
- ☐ remove, damage or disturb any historic or prehistoric remains\*
- ☒ engage in any construction or improvement\*
- ☒ engage in any camping activity
- ☒ establish a temporary or permanent residence
- ☐ start or maintain a fire
- ☐ litter, or to deposit refuse or any other substance
- ☐ operate any motorized or nonmotorized land vehicle or air conveyance in any area (including roads and trails) not designated for its use
- ☐ operate any motorized water vehicle of any shape or form in freshwater environments or marine waters, except as otherwise provided by DLNR's boating rules
- ☐ enter into, place any vessel or material on, or otherwise disturb a lake or pond
- ☐ engage in commercial activities, defined as "the use of or activity on state lands for which compensation is received by any person for goods or services or both rendered to customers or participants in that use or activity"
- ☐ have or possess the following tools, equipments or implements: fishing gear or devices (in 'Ahihi-Kina'u NAR), cutting or harvesting gear (in any NAR), and hunting gear or tools (except as permitted by the hunting rules of the department)
- ☐ hike or conduct nature study **with a group larger than 10**
- ☒ presence in an area closed pursuant to HAR §13-209-4.5 or after visiting hours established by §13-209-4.6
- ☐ anchor any motorized or non-motorized water vehicle in the marine waters of 'Ahihi-Kina'u NAR
- ☐ other (please explain): \_\_\_\_\_

\* May require additional State or Federal permits. Applicants are responsible for identifying and securing all approvals that may be required.

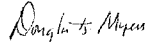
\*\* The NARS rules and recent rule amendments can be viewed on-line at  
<http://www.state.hi.us/dlnr/dofaw/Unofficial%20compilation%20HAR%2013.209.pdf>

\*\*\* Please allow for a minimum permit processing time of three months\*\*\*

**All permits will have the following standard conditions, pursuant to HAR § 13-209-5. Additional conditions may apply.**

- 1) The permittee shall adhere to the specifications given in the permit application
- 2) Disturbance of vegetation and wildlife shall be avoided as much as possible
- 3) Precautions shall be taken to prevent introductions of plants or animals not naturally present in the area. The permittee is responsible for making sure that participants' clothing, equipment, and vehicles are free of seeds or dirt to lessen the chance of introducing any non-native plants or soil animals. Should an infestation develop attributable to the permittee, the permittee is responsible for eradication by methods specified by the department
- 4) Once approved, the permit is not transferable
- 5) Once approved, the permit does not exempt the permittee from complying with any other applicable rule or statute
- 6) The State of Hawaii shall be released and held harmless from any and all liability for injuries or death, or damage or loss of property however occurring during any activity related to the permit

**I certify that the information contained in this application is true and correct.**

DocuSigned by:  
  
B3EDEF8C2539043C  
**Applicant's Signature**

*If approved, copies of the permit will be provided to:*

- *Applicant*
- *NARS Commission Executive Secretary*
- *NARS Branch staff*
- *DLNR-DOCARE*

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**For internal use only:**

**Application received on:** \_\_\_\_\_

**Distributed to District staff for review on:** \_\_\_\_\_

**Approval ( ) recommended ( ) not recommended by NARS Commission or authorized representative on: \_\_\_\_\_ ( ) with the attached special conditions.**

**( ) Approved**

**( ) Not Approved**

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**Chairperson, DLNR**

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**Date**

**Applicant Contact Information**

You may either enter the information directly onto this form; if you need more space or need to attach additional pages, please indicate that there are attachments.

**Name:**

Douglas G. Myers

**If you are applying on behalf of an organization, the organization and your title:**

Zoological Society of San Diego dba San Diego Zoo Global, President/Chief Executive Officer

**Title of Proposed Activity:**

'Alalā Reintroduction Project

**Primary contact person for this permit application:**

Douglas G. Myers

**Mailing Address:**

2920 Zoo Drive, San Diego, CA 92101

**Phone:** 619-557-3999

**Fax:-**

**E-mail:** dmyers@sandiegozoo.org

**Principal local contact, reference, or collaborator:**

Bryce Masuda, Conservation Program Manager (local contact)

**Mailing Address:**

P.O. Box 39, Volcano, HI 96785

**Phone:** 808-985-7218

**Fax:** none

**E-mail:** bmasuda@sandiegozoo.org

**Supporting Information**

Please provide the following information about your proposed activity that requires a special-use permit ("proposed special-use"). Failure to provide responses to the following questions may result in your application being rejected or taking longer to review and process.

1. **What is the period of time for which the permit is requested (e.g., the date of a proposed single event or an ongoing research project, from beginning time or date until end of the event or project, for group hikes the number of hikers and leaders)?**

*\* Please note: permits are limited to one year in length, except where waived for permits to other governmental agencies where the board determines the waiver to be in the best interest of the State. Proposals for multi-year projects are advised of the need to apply for a new permit EACH year.*

This permit application is requested for one year.

2. **List the individual Natural Area Reserve(s) involved:** *Please note that Laupahoehoe is now has an overlay under the jurisdiction of the US Forest Service as part of the Hawai'i Experimental Tropical Forest (HETF). Applicants wishing to work in this Natural Area Reserve will need to apply for a separate permit by going to [http://www.hetf.us/page/conducting\\_research/](http://www.hetf.us/page/conducting_research/) You will **not** need to submit an additional application fee, but you will have to have it pass thorough the HETF review process. Permits are issued off of the Big Island DOFAW Branch.*

*Kahauale'a is currently closed due to continuing volcanic activity; entry is prohibited, but may be granted under special use request made directly to the Big Island NARS Manager and issued off of the Big Island DOFAW Branch (also subject to approval of Hawaiian Volcano Observatory to insure safety).*

*The majority of Ahihi-Kina'u is closed to public access; entry for research or other purposes may be made under a Special Use Permit.*

The NAR involved in this permit is Pu'u Maka'ala NAR.

3. **Attach a map that illustrates where in the Natural Area Reserve(s) you propose to conduct your special-use.** *The map should be legible and reproducible in black and white. The map should also be at the appropriate scale for the type of activity proposed and of sufficient detail to allow the Division to identify activity sites within 10 meters. For any activity off established trails, entry and exit routes should be marked.*



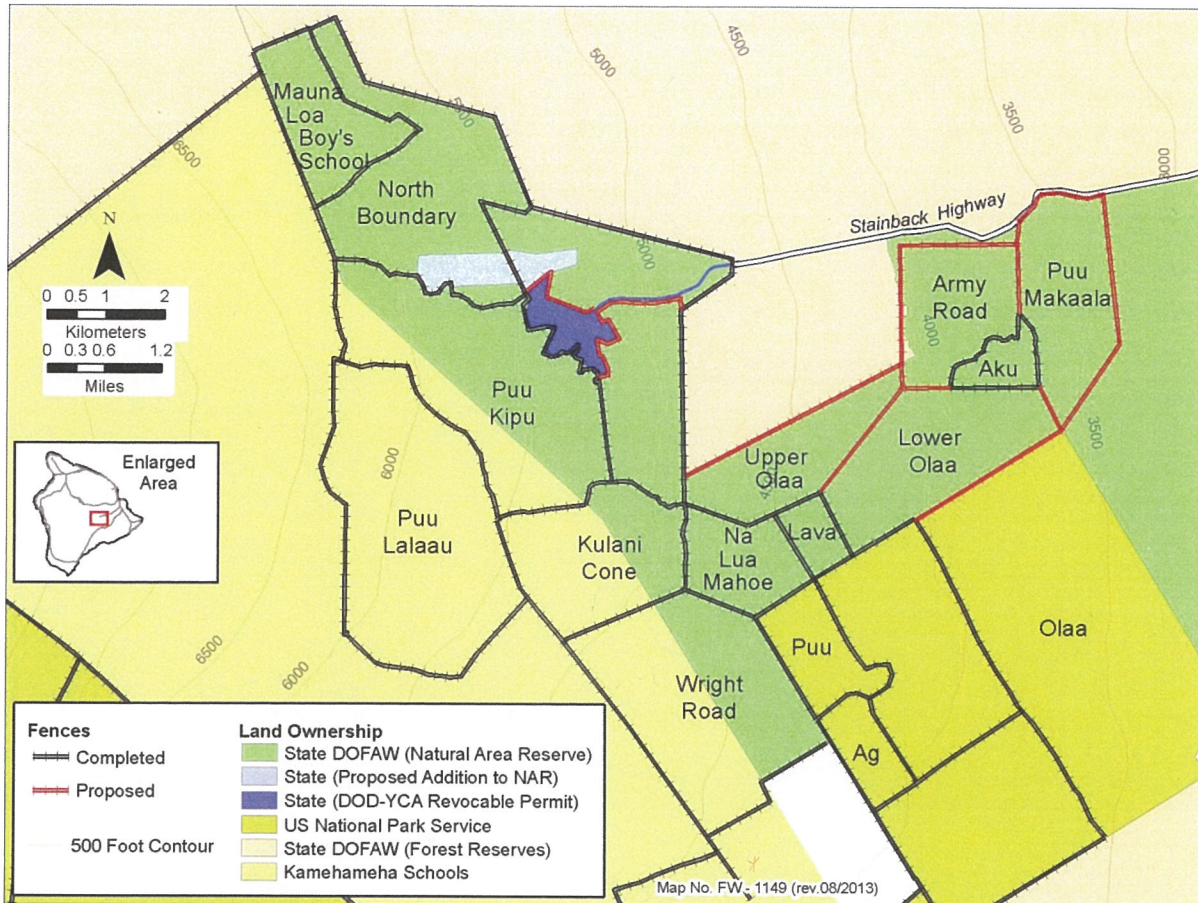


Figure 1. Map of Pu'u Maka'ala NAR. The exact location of the new, proposed release site for the 2017 release(s) will be agreed upon with the 'Alalā Working Group and Hawai'i Island NARS Manager.

4. **Provide a thorough and detailed description of the proposed special use, including names of field assistants and other collaborators.** *The description should be detailed enough so that those reviewing your application understand what you propose to do and the scope of your proposal. As part of your description, please include: a) a description of the planned method of transportation to and within the Natural Area Reserve, and b) if other people than you will participate in the proposed special-use, please note how many people, and whether they are volunteers, students, research assistants, paying customers, etc.*

**For research proposals,**

- a) *please explain your objectives, your methods, and why the proposed special-use is necessary to your research;*
- b) *if the research is part of your undergraduate or graduate studies, please include the name and affiliation of your major professor;*
- c) *if you are seeking permission to remove or introduce any form of plant or animal life, please list all species involved and specifically identify which are threatened, endangered, or candidate species.*

- d) *if you are seeking permission for the collection of any specimens, please note type of specimen (species and parts collected, if less than entire specimen), quantities to be collected, storage methods, and ultimate disposition.*

***Failure to provide sufficient information may result in your application being returned for additional information or rejected. Please feel free to attach additional sheets as necessary.***

- a) Objectives, methods, and necessity of the proposed special use:

The overall, long-term objective of this project is to establish a self-sustaining wild population of 'Alalā in the Pu'u Maka'ala NAR.

- b) Academic Affiliation:

Not applicable

- c) Removal of species:

Similar to our previous permit, we would like to request permission to remove 'Alalā only if they become sick or injured or if the removal will be beneficial to the well being of the bird. If any birds become sick or injured, we request permission for them to be recaptured and returned to Keauhou Bird Conservation Center to undergo rehabilitation and evaluation, prior to being returned to the wild if possible.

- d) Collection of specimens:

Similar to our previous permit, we would like to request permission to collect deceased 'Alalā. If and when there are mortalities, we request permission for the carcass to be collected and sent to San Diego Zoo for complete necropsy analysis to determine the cause of mortality to the fullest extent possible. The carcass will then be deposited with the Bishop Museum, Honolulu, following existing USFWS and DOFAW permits.

We would like to request the special conditions listed below. As per request by the Executive Secretary of the NARS Commission, the wording below has been written such that it could be utilized as wording in the permit (i.e. each bullet point does not explicitly ask for permission per se, although permission is being requested for all conditions). The wording below originated from the existing NARS Special Use Permit, and has been modified slightly for this renewal application.

- The release site is located in the Pu'u Maka'ala Natural Area Reserve; access will either be through the new NARS gated access road bypassing the Kūlani Correctional Facility, or thorough the Kūlani Correctional Facility with permission; transportation into the NAR will be by 4 x 4 vehicles along various access roads as required to care for and monitor 'Alalā.
- The existing "Boys Home" structure will be utilized as a temporary living space for the team to camp overnight. Solar panels and batteries, as well as a water filtration system will be setup within or near the structure. Water will be utilized from the existing catchment and tank structure. A contained sanitation system (such as a cleanwaste portable toilet) will be setup within or nearby the structure. All equipment will be placed only in locations agreed upon by the Hawai'i Island NARS Manager.

- Activities will be overseen by Bryce Masuda, Conservation Program Manager. Additional supervision will be provided by a Research Coordinator (to be hired) and Alison Greggor, Postdoctoral Associate. The monitoring field team will consist of a maximum of seven temporary research assistants (to be hired), five interns (to be hired), and additional temporary consultants and advisors (to be determined), as needed. The total number of members on the team will fluctuate to meet the changing demands of care and post-release monitoring of the 'Alalā. Once the research assistants and interns are hired, their names will be provided to the Hawai'i Island NARS manager.
- The temporary pre-release flight conditioning aviary will continue to be maintained and utilized to hold and care for 'Alalā prior to release. One or more groups of 'Alalā will be released in 2017, as determined by the 'Alalā Working Group.
- Approximately 12 'Alalā will be released every year for approximately five years; these details are subject to change depending on a variety of factors such as the number and dates of hatching, funding, etc. Post-release monitoring will be on-going.
- One or more release aviaries will be built in locations agreed upon by the Hawai'i Island NARS Manager. These aviaries will be used to temporarily house 'Alalā immediately before release to minimize dispersal, provide supplemental food, and facilitate recapture.
- 'Alalā will be moved from the flight conditioning aviary to the release aviary, where they will be held for a period of time before release, as determined by the 'Alalā Working Group. The dimensions and exact location of the release aviary will be determined by the 'Alalā Working Group, and agreed upon by the Hawai'i Island NARS Manager.
- To ensure the 'Alalā are supported properly after they are released into the wild, they will be provided with supplemental food within, near, and surrounding the release aviary. Supplemental food is essential in reintroductions and releases of captive reared birds into the wild. This technique has been used successfully for numerous reintroduction projects.
- Most, if not all, released 'Alalā will carry lightweight transmitters weighing approximately 18 grams in order to monitor post-release behavior and movements. As much monitoring as possible will be done remotely to minimize disturbance to the birds and the impact within the NAR. Installation of automated VHF towers, approximately 15 ft. tall with attached antennae and guy lines, will be placed in strategic locations surrounding the release site, as approved by the Hawai'i Island NARS Manager.
- On the ground monitoring will be conducted only as needed and following fence lines, roads, transect lines, and other existing paths as much as possible to limit the impact in the NAR.
- Monitoring will involve data collection, for research purposes. Research associated with this project will be utilized to better understand the 'Alalā and to inform and guide future release strategies for this species. Such research includes, but is not limited to, survival, dispersal and movements, foraging behavior, and frequency to forage on supplement food. Additional data will be collected on the vocalizations of the 'Alalā.
- 'Alalā may be recaptured and removed only if they become sick or injured or if the removal

will be beneficial to the well being of the bird. In these cases, 'Alalā will be recaptured and returned to Keauhou Bird Conservation Center to undergo rehabilitation and evaluation, prior to being returned to the wild if possible.

- If there is a death, the carcass will be collected and sent to San Diego Zoo for complete necropsy analysis to determine the cause(s) of mortality to the fullest extent possible. The carcass will then be deposited following existing USFWS and DOFAW permits (e.g. with the Bishop Museum in Honolulu).
- Decontaminate boots/footwear, backpacks and equipment before and after each trip into the Reserve to prevent spread of weed seed and/or pathogens. All vehicles should be clean of weed seeds and mud from other locations before entering the NAR.
- For the protection of the forest areas from transmission of Rapid 'Ōhi'a Death (ROD), no clothing, gear, equipment, or tools used on Hawai'i Island will be permitted for use on Maui Nui, O'ahu, or Kaua'i. Prior to conducting any work under this permit, Permit Holder is required to contact and receive approval of the Branch Manager or designee. Permit Holder is responsible for ensuring that all clothing, gear, equipment, tools or vehicles is cleaned and may be subject to inspection pursuant to compliance with this condition.
- Here are some basic recommendations for preventing spread of *Ceratocystis* Wilt of 'Ōhi'a (aka Rapid 'Ōhi'a Death):
  - Do not move any wood from areas where ROD is present.
  - Clean all tools (saws, pruners, shovels, etc.) with Lysol or a 70% rubbing alcohol solution before re-using at another site. Cutting of any 'ōhi'a will be avoided as much as possible.
  - Off-road vehicles should be thoroughly cleaned underneath to prevent moving contaminated soil.
  - Shoes, clothing, and backpacks should also be cleaned before being worn in healthy forests. Shoes soles should be sprayed with Lysol or alcohol solution after removing mud and dirt.
  - So far the pathogen has been isolated from 'ōhi'a wood (internal), soil, and insect frass. Such material collected from sites where ROD is present should be destroyed, following research or other use and not moved to other forest sites.
  - When visiting multiple sites, visit sites where ROD has been detected last to prevent spread.
  - The above sanitation precautions should be closely followed, especially for researchers moving interisland.

**For more information including updates on where the disease has been found, please see [www.ohiawilt.org](http://www.ohiawilt.org)**

- Photos taken by Permit Holder, Sub-Permit Holders and Volunteers of rare and endangered wildlife and plants, encountered during research activities described in this endorsement shall not be posted on social media outlets with location information, except in the broadest of terms (i.e. island and mountain range). An example of an acceptable location tag for a site on



O‘ahu would be “Northern Ko‘olau Mountains”. Failure to comply will result in revocation of this permit and the denial of further permit. If Principal Permit Holder, Sub-Permit Holders, or Volunteers encounter rare and endangered wildlife and plants while conducting research activities outlined in this endorsement, said Permit Holder, staff and volunteers will not visit the given rare or endangered wildlife or plant again except if absolutely necessary for conducting the research outlined in this endorsement. Similarly, Permit Holders, Sub-Permit Holders, and Volunteers will not provide directions or location information of rare and endangered wildlife and plants to non-agency or non-permitted individuals. Failure to comply will result in the revocation of this permit and the denial of further permits.

- Permits are issued on an annual basis; if a **renewal** is required, please submit a report detailing progress to date (not just species lists) six weeks **prior** to permit expiration date, before submitting an application form detailing future plan; renewals may be delayed or denied without prior reporting. In the case of single year permits, submit a report following the permit expiration date that details what was accomplished during the permit period. Annual reports will include GPS data for all specimen collection/observation localities and track logs for the trails that Permit Holder used to access these areas (i.e., shape files must include point data of animal/plant location by species, track of surveyed area, or estimated polygon if Permit Holder did not take a track, and polygon of desired survey area); or as per agreement with NARS staff. The information provided may be used for management purposes.
- Upon completion of the project, all infrastructure will be removed from the area unless otherwise agreed upon with the Hawaii Island NARS Manager.

**5. Please answer the following questions about your proposed special use:**

**a. Can your proposed special use be conducted elsewhere? If not, why not?**

The proposed special use was chosen by the ‘Alalā Working Group (which includes representatives from the NARS and DOFAW) to be conducted at the Pu‘u Maka‘ala NAR after an in-depth analysis of all proposed release sites. This site was chosen to ultimately give ‘Alalā the greatest chance of success at establishing a wild population, while accounting for logistical constraints for the implementation of this project.

**b. Is your proposed special-use consistent with the purpose and objectives of the Natural Area Reserves System (the purpose and objective of the NARS is to protect in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the natural flora and fauna of Hawai‘i)? If so, how?**

The proposed special-use is consistent with the purpose and objectives of the NARS, because it involves reintroducing and restoring a currently extinct in the wild endemic Hawaiian bird to the NARS. The ‘Alalā reintroduction itself is consistent with the purpose and objective of the NARS, as it is a disperser of native fruiting plants, and therefore considered a keystone species to native Hawaiian ecosystems.

- c. Is your proposed special-use consistent with the management plan developed for the individual Reserve(s) (*Management plans are available for review at [www.dofaw.net/nars](http://www.dofaw.net/nars) or by contacting the NARS office*)?**

The proposed special-use of reintroducing 'Alalā to Pu'u Maka'ala NAR is consistent with the management plan, which explains that the "overall management goal is to protect, maintain, and enhance Pu'u Maka'ala's unique natural, cultural, and geological resources." The proposed activities are consistent with the management plan, as reintroducing 'Alalā will protect natural resources (e.g. trapping of introduced mammalian predators), enhance natural resources (e.g. the release of 'Alalā as an endemic species), and enhance cultural resources (e.g. the release of the culturally important 'Alalā).

- d. Does your proposed special-use provide a benefit (direct or indirect) to the Natural Area Reserves System or to the individual Reserve(s) or both? (*For research, please note whether any studies have previously been made similar to the one proposed and how you will convey your research findings to the Department*).**

The proposed reintroduction of 'Alalā will benefit the NARS by bringing attention to the importance of the NARS in general. It will also benefit the Pu'u Maka'ala NAR specifically, as 'Alalā are important seed dispersers of endemic Hawaiian plants.

- e. Will the proposed special-use damage or threaten to damage the integrity or condition of the natural, geological, or cultural resources in the individual Natural Area Reserve(s) and adjacent area or region? If so, how? If not, why not?**

The proposed special use will be conducted in a manner to minimize impacts to the NAR as much as possible. Potential impacts from proposed activities have been discussed with the Hawai'i Island NARS manager, and planning has been designed based on the manager's recommendations. The flight conditioning aviary has already been constructed on a disturbed site. The release aviary will be constructed in an area approved by the Hawai'i Island NARS Manager. Browse and perching will be obtained from NARS staff when they clear fencelines and dirt roads. If additional browse and perching for the birds are necessary, SDZG staff will consult with NAR staff prior to doing any vegetation collections. Vehicles will be cleaned prior to being driven in the NAR and boots and all other gear will also be thoroughly cleaned and disinfected prior to being transported to the NAR. As much as possible, brand new equipment and supplies will be used and stored at the living facilities and office space to limit unwanted organisms from entering the NAR. Driving will be done slowly along dirt roads in the NAR. Remote monitoring (e.g. towers) will be preferentially used and off-trail work will be kept to a minimum. On the ground monitoring will be conducted only as needed and following fence lines, roads, transect lines, and other existing paths as much as possible to limit the impact in the NAR.

- f. Does the proposed special-use comply with the provisions and guidelines contained in HRS Chapter 205A, entitled 'Coastal Zone Management,' where applicable? *HRS Chapter 205A can be accessed at:*[http://www.capitol.hawaii.gov/hrscurrent/Vol04\\_Ch0201-0257/HRS0205A/](http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0205A/)**

Not applicable.

- g. Have you (the applicant) previously received a NARS Special Use Permit? If so, did you comply with the conditions of any previously approved permit (including providing a final report as requested)?**

Yes, we have previously received a NARS Special Use Permit and complied with the conditions.

- h. Do you (the applicant) have any other current NARS special-use permits? If so, please list and state whether you are currently in compliance with the conditions of those permits.**

We do not currently have any other NARS special use permits.

- 6. Is the proposed special-use expected to have an environmental impact on the Natural Area Reserve(s) or the surrounding area? If, so please elaborate. If not, why not? *Please include discussion of any off-trail work, such as mist-netting, setting of traps, removal of vegetation, etc. and any measures planned to mitigate any short and long-term damage.***

The proposed special use will be conducted in a manner to minimize impacts to the NAR as much as possible. Potential impacts from proposed activities have been discussed with the Hawai'i Island NARS manager, and planning has been designed based on the manager's recommendations. The flight conditioning aviary has already been constructed on a disturbed site. The release aviary will be constructed in an area approved by the Hawai'i Island NARS Manager. Browse and perching will be obtained from NARS staff when they clear fencelines and dirt roads. If additional browse and perching for the birds are necessary, SDZG staff will consult with NAR staff prior to doing any vegetation collections. Vehicles will be cleaned prior to being driven in the NAR and boots and all other gear will also be thoroughly cleaned and disinfected prior to being transported to the NAR. As much as possible, brand new equipment and supplies will be used and stored at the living facilities and office space to limit unwanted organisms from entering the NAR. Driving will be done slowly along dirt roads in the NAR. Remote monitoring (e.g. towers) will be preferentially used and off-trail work will be kept to a minimum. On the ground monitoring will be conducted only as needed and following fence lines, roads, transect lines, and other existing paths as much as possible to limit the impact in the NAR.

- 7. There is an application fee of \$50 to cover the cost of processing; please attach a check made out to: *Department of Land and Natural Resources*. Please mail a hard copy of the application with original signature (students must also have the signature of their Advisor. This should be mailed to the attention of: Executive Secretary, Natural Area Reserves System Commission, Division of Forestry and Wildlife, Department of Land and Natural Resources, 1151 Punchbowl Street, Room 325, Honolulu, HI96813. An electronic version of the application (signed or unsigned) may be e-mailed to [betsy.h.gagne@hawaii.gov](mailto:betsy.h.gagne@hawaii.gov) so that it may be sent out for review to appropriate staff and others.**

Check is no longer required.

**8. For research proposals, please list any local collaborators or contacts (if any).**

This reintroduction is being conducted in collaboration with the Hawai'i Natural Area Reserve System, Hawai'i Division of Forestry and Wildlife, U.S. Fish and Wildlife Service, Three Mountain Alliance, Kamehameha Schools, Hawai'i Volcanoes National Park, and the U.S. Geological Survey.