

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Forestry and Wildlife (DOFAW)  
Honolulu, Hawaii 96813

March 21, 2014

Endangered Species Recovery Committee  
State of Hawaii  
Honolulu, Hawaii

Committee Members:

**SUBJECT:** Consideration of appropriate baseline determination for endangered, threatened, proposed, and candidate plant species.

**BACKGROUND:**

The State of Hawaii encourages landowners to volunteer in efforts that benefit endangered, threatened, proposed, and candidate species through a Safe Harbor Agreement (SHA) Program. Under HRS Chapter 195D-22, landowners may enter into a SHA to create, restore, or improve habitats or to maintain currently unoccupied habitats that threatened or endangered species can reasonably be expected to use. If conditions under HRS Chapter 195D-22 are met, a SHA may authorize take of an endangered, threatened, proposed, or candidate species.

Safe Harbor Agreements provide assurances to landowners that allow alterations or modifications to their property, even if such actions result in the incidental take of a listed species or, in the future, returns the species back to an originally agreed-upon baseline condition (i.e., species population estimates, the extent and quality of habitat, or both population estimate and the extent and quality of habitat determined on the property at the time the Agreement is executed).

Baseline determination of endangered plant species in the SHA framework presents its own set of challenges. Species-specific characteristics can make it difficult to accurately estimate population numbers and species-specific life cycles, dispersal methods, and reproductive paradigms introduce challenges in monitoring and clearly distinguishing between population units. Additionally, information and studies are often lacking for endangered species.

Recovery strategies for endangered plants often include establishing new populations in order to reduce extinction probability. Plant propagation and out-planting programs provide augmented populations and habitats for listed plants, but may have lower survivorship due to inappropriate site selection (sometimes due to lack of availability of appropriate high quality sites) or low genetic variation that potentially limits long-term survival of that population. Out-planting programs and risks inherited in these populations should be considered in determining baseline conditions for endangered plant species in the SHA framework.

## ANALYSIS

The purpose of an SHA is to encourage landowners to voluntarily engage in efforts that benefit endangered, threatened, proposed, and candidate species. The requirements of an SHA, pursuant to HRS 195D-22(b) are the following:

1. The take would not jeopardize the continued existence of any endangered, threatened, proposed, or candidate species;
2. The take would not reduce the population of endangered, threatened, proposed, or candidate species below the number found on the property prior to entering into the agreement;
3. The agreement proposes to create, restore, maintain, or improve significant amounts of habitat for a minimum of five years for private lands and for a minimum of fifteen years for public lands;
4. There is adequate funding for the agreement and the source of that funding is identified;
5. The safe harbor agreement increases the likelihood that the endangered or threatened species for which a take is authorized will recover;
6. Any take authorized pursuant to this subsection shall occur only in the habitat created, restored, maintained, or improved; and
7. The cumulative impact of the activity, which is permitted and facilitated by the take, provides net environmental benefits.

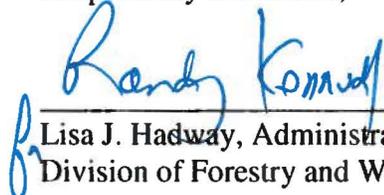
DOFAW is seeking guidance on determining baseline conditions in SHA's for endangered plant populations. The following items should be considered:

1. At what stage is a plant counted as an individual towards a baseline. Dealing with seedling and immature stages of plants.
2. Inclusion of out-planted plants in baseline determinations.
3. Determining baseline when species specific characteristics make it difficult to distinguish individuals and population. Utilizing ranges, is this appropriate?
4. Monitoring of baseline conditions in annual, perennial, plants and/or without knowledge of plant life span.

## RECOMMENDATION

That the ESRC provide general guidance on future SHAs regarding baseline determinations for endangered plant species and ensuring baseline conditions and responsibilities are appropriate for endangered plants.

Respectfully Submitted,

  
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Lisa J. Hadway, Administrator  
Division of Forestry and Wildlife