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STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES DIVISION OF FORESTRY AND WILDLIFE 1151 PUNCHBOWL STREET, ROOM 325 HONOLULU, HAWAII 96813

November 25, 2022

Merwyn de Wolff and Betsy Wilson AKC Leasing Corporation 2906 Kaihikapu Street Honolulu, Hawaii 96819-2012

Dear Mr.Wolff and Ms.Wilson,

The Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (Forestry and Wildlife) has received your letter dated October 19, 2022, requesting to close the Kenai Industrial Park (KIP) Habitat Conservation Plan (HCP) and Incidental Take License (ITL) for take of *Achyranthes splendens* var. *rotundata* (referred to here simply as *Achyranthes*). Your letter was specifically a reiteration of a preceding letter you submitted (dated March 4, 2022) stating that the success criteria and intent of the HCP have been met. After much internal discussion, however, we respectfully disagree with this assessment.

As stated in the HCP, 'the goal of the measures of success is to ensure that the out-planted populations of round-leaved chaff flower (i.e., *Achyranthes*) become established and are stable and viable self-producing populations." To assess that this was accomplished, the following Measures of Success or success criteria were proposed and implemented.

- 1. Out-planted individual survivorship:
 - a. 100% of 120 out-planted individuals will survive by Year 1.
 - b. 95% of 120 out-planted individuals will survive by Year 2.
 - c. 85% of 120 out-planted individuals will survive by Year 3.
 - d. 75% of 120 out-planted individuals will survive by Years 4 and 5.
- 2. There must be a) recruitment of seedlings that survive through the dry season, in absence of any supplemental watering; and b) seed production by at least 25% of the out-planted lineages by Year 5.
- 3. The number of seedlings recruited into the mature age class must be greater than the mortality rate of existing adult plants over a 5-year period, with minimum recruitment of 25% of the number of out-planted individuals over a 5-year period.

- 4. No fewer than 120 mature plants, which will include plants recruited from the planted lineages, will be established by Year 5.
- 5. The cover of herbaceous non-native plants (e.g., buffelgrass, khaki weed [*Alternanthera pungens*], and golden crownbeard) will be less than 25% within the planting plots by Year 5.
- 6. No mature kiawe will be within the planting plots over the 5-year period.
- 7. Native plant species cover within the planting plots will be greater than 25% by Year 5.

At the Fiscal Year 2021 Endangered Species Recovery Council (ESRC) annual review meeting held on February 4, 2022, Dr. Loyal Mehrhoff offered to work with Forestry and Wildlife staff to revise the success criteria for KIP HCP with the intent of making them less challenging to meet while maintaining the overall conservation goals of mitigation efforts. These revised criteria are as follows:

- 1. OUT-PLANTING: 120 individuals from all lineages will be out-planted initially; with additional out-planting as needed until all other criteria are met.
- 2. SEED PRODUCTION: Seed production must be documented in at least 25% of the outplanted lineages by Year 5.
- 3. RECRUITMENT: Measured during at least three consecutive years without supplemental watering.
 - a. Seedling recruitment must exceed outplant mortality over the duration of the permit (10 years).
 - b. Recruitment of seedlings into mature plants (i.e., flowering) must exceed the mortality rate of existing mature plants (i.e., flowering; including out-plants).
- 4. SUSTAINMENT: More than 120 mature (i.e., flowering), seedling-derived individuals are present for at least three consecutive years without supplemental watering.
- 5. HABITAT MANAGEMENT: To be maintained during the permit period.
 - a. Cover of herbaceous nonnative plants (e.g., buffelgrass, khaki weed, and golden crownbeard) will be less than 25% within planting sites by Year 5 and maintained during the permit period.
 - b. No mature kiawe will be within the planting sites during the permit period.
 - c. Native species cover within the planting sites will be greater than 25% by Year 5 and maintained during the permit period.

Although DOFAW had agreed to remove the original Criterion 1 because of its unrealistic goals of survival, Dr. Mehrhoff revised it to instead focus on the number of outplants achieved during the project. Criterion #2 was reformulated with a focus simply on seed production and removes the need for recruitment of seedlings that survive the dry season, unaided. Criterion 3 simplifies the recruitment parameters, removing the need for recruitment of 25% of the number of outplants. While Criterion 4 remains mostly unchanged, Dr. Mehrhoff's revisions place the original Criteria 5 through 7 as sub-criteria under a new criterion for Habitat Management. Employing

these revised measures of success, DOFAW's assessment of the status of KIP's HCP is as follows:

Criterion 1 (Out-planting)

• Criterion has been MET. Available reports show KIP had planted >120 plants from all lineages; four individuals planted in November 2014, 159 planted in December 2014, 60 planted in April 2020, and 57 planted in June 2021, for a total of 280 out-planted individuals.

Criterion 2 (Seed Production)

• Criterion has been MET. Reports to date document observed seed production on all plants by Year 5.

Criterion 3 (Recruitment)

- Sub-Criterion 'a '; was NOT MET. A total of 280 plants were planted, all of which were dead by 2021. Your letter dated October 19 states that there were 97 living individuals in May 2020 that had been recruited onsite. The Year 7 Final Report states that there were 64 plants still alive in June 2021.
- Sub-Criterion 'b'; was NOT MET. Although we do not feel that the measure of six inches is an accurate determination of whether an *Achyranthes* plant has reached maturity, your October 19 letter confirms there were fewer than 100 mature individuals onsite as of May 2020. The Year 7 Final Report further confirms that this number had dropped to just 64 in June 2021. SWCA planted 280 individual plants and reported that all of them had flowered. The number of seedlings that survived to maturity, however, was <25% of the mortality rate of these out-plants.

Criterion 4 (Sustainment)

• Criterion was NOT MET. During their site visit on September 27, 2021, DOFAW staff observed plants being watered at the mitigation site. Reports also indicate that there were not more than 120 mature plants for more than three years. As detailed in the Year 7 Final Report, as of June 2021, 64 progenies were alive and only a few of these were mature.

Criterion 5 (Habitat Management)

• All sub-criteria have been MET

We do sincerely understand your desire to bring this HCP to a close. Following the revised criteria above, however, three success criteria are still unmet and DOFAW therefore cannot approve the completion of the HCP. Your ITL is valid until February 14, 2024, allowing approximately one year and four months to achieve the goals put forth and agreed upon in the HCP, and to meet the revised success criteria presented in this letter. Additionally, we note that the AKC Leasing Corporation Letter of Credit for KIP (Bond No. LPM9170468) expired on September 25, 2022. As required under the State HCP process, we request that this be renewed as soon as possible to ensure you remain compliant with the terms of your HCP and ITL.

If you have any questions, please contact Paul Radley, Protected Species Habitat Conservation Planning Coordinator at (808) 295-1123 or paul.m.radley@hawaii.gov.

Sincerely,

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DAVID G. SMITH Administrator

cc: SWCA Consultants, Attention Jaap Eijzenga jeijzenga@swca.com